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Chemostratigraphical characterisation of lower Silurian black shales from the Formigoso Formation (southern Cantabrian Mountains, Spain)

Timothy Ferriday

PhD Thesis
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Volume III
Appendix B (Part 2)
Appendix B (Part 3)
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Keele University

Results appendix B (part 2)

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1. Conversion of major elements; ppm to Wt%.

The entirety of the geochemical dataset was exported from in the Niton XL3t in ppm. As the major elements are widely accepted in Wt% the following formulas were applied to convert the relevant ppm values;

MgO = Mg (ppm value)/10000*1.65827607

Al_2O_3 = Al (ppm value)/10000*1.88946369

SiO_2 = Si (ppm value)/10000*2.13933524

K_2O = K (ppm value)/10000*1.2046048

CaO = Mn (ppm value)/10000*1.39918663

TiO_2 = Ti (ppm value)/10000*1.66831245

MnO = Mn (ppm value)/10000*1.29122647

Fe_2O_3 = Fe (ppm value)/10000*1.42972944

2. Geochemical results – Aralla section

2.1 Major elements

Sample	Formation	NaO Wt % (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO Wt%	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
Aralla 1	Barrios Fm	0.27	< D.L.	< D.L.	90.31	< D.L.	< D.L.	0.06	0.05	3.16
Aralla 2	Getino Bed	0.58	< D.L.	5.12	81.41	1.07	< D.L.	0.72	0.06	4.06
Aralla 3	Getino Bed	0.76	< D.L.	8.92	56.75	1.74	0.20	0.94	0.06	18.07
Aralla 4	Bernesga Mb.	1.44	1.05	27.81	54.14	4.19	< D.L.	1.15	0.06	3.59
Aralla 5	Bernesga Mb.	1.42	0.97	27.94	55.18	4.11	< D.L.	1.13	0.06	3.55
Aralla 6	Bernesga Mb.	1.48	1.06	29.40	55.83	4.31	< D.L.	1.17	0.06	3.51
Aralla 7	Bernesga Mb.	1.51	1.07	30.21	55.74	4.45	< D.L.	1.21	0.06	3.55
Aralla 8	Bernesga Mb.	1.40	1.08	30.24	56.59	4.03	< D.L.	1.25	0.06	3.80
Aralla 9	Bernesga Mb.	1.42	1.07	30.72	57.78	4.10	< D.L.	1.20	0.06	3.61
Aralla 10	Bernesga Mb.	1.38	0.97	29.49	55.89	3.95	< D.L.	1.31	0.06	3.90
Aralla 11	Bernesga Mb.	1.35	1.03	30.34	54.34	3.87	< D.L.	1.28	0.06	3.84
Aralla 12	Bernesga Mb.	1.38	< D.L.	27.58	54.18	3.96	< D.L.	1.13	0.06	4.93
Aralla 13	Bernesga Mb.	1.41	1.05	29.87	54.38	4.08	< D.L.	1.25	0.06	3.81
Aralla 14	Bernesga Mb.	1.46	1.12	30.68	55.71	4.25	< D.L.	1.16	0.06	3.54
Aralla 15	Bernesga Mb.	1.43	0.92	28.81	53.12	4.16	< D.L.	1.16	0.06	3.71
Aralla 16	Bernesga Mb.	1.35	0.99	29.35	54.32	3.87	< D.L.	1.11	0.06	3.57
Aralla 17	Bernesga Mb.	1.39	1.01	32.43	53.55	4.01	< D.L.	1.17	0.06	5.74
Aralla 18	Bernesga Mb.	1.41	0.98	28.84	53.16	4.07	< D.L.	1.20	0.06	3.74
Aralla 19	Bernesga Mb.	1.37	0.97	27.77	53.35	3.94	< D.L.	1.20	0.06	3.97
Aralla 20	Bernesga Mb.	1.34	1.15	30.57	59.27	3.82	< D.L.	1.12	0.06	3.65
Aralla 21	Bernesga Mb.	1.28	< D.L.	31.39	51.23	3.60	< D.L.	1.08	0.06	11.37
Aralla 22	Bernesga Mb.	1.36	1.04	32.14	52.88	3.88	< D.L.	1.14	0.06	7.72
Aralla 23	Bernesga Mb.	1.33	1.12	32.45	57.15	3.80	< D.L.	1.13	0.06	3.68
Aralla 24	Bernesga Mb.	1.35	1.11	32.17	57.23	3.87	< D.L.	1.17	0.06	3.59
Aralla 25	Bernesga Mb.	1.35	0.92	28.51	52.62	3.87	< D.L.	1.17	0.06	3.55

Sample	Formation	NaO Wt % (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO Wt%	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
Aralla 26	Bernesga Mb.	0.99	< D.L.	28.45	36.40	2.55	0.28	0.80	0.21	37.87
Aralla 27	Bernesga Mb.	1.30	0.91	31.17	55.35	3.70	< D.L.	1.22	0.06	3.66
Aralla 28	Bernesga Mb.	1.25	0.94	30.37	56.15	3.48	< D.L.	1.16	0.06	3.66
Aralla 29	Bernesga Mb.	1.26	0.93	27.94	54.63	3.52	< D.L.	1.17	0.06	3.48
Aralla 30	Bernesga Mb.	1.27	0.94	27.72	54.94	3.57	< D.L.	1.15	0.06	3.63
Aralla 31	Bernesga Mb.	1.31	1.04	30.15	57.28	3.70	< D.L.	1.20	0.06	4.15
Aralla 32	Bernesga Mb.	1.32	0.95	27.09	55.39	3.77	< D.L.	1.21	0.06	4.02
Aralla 33	Bernesga Mb.	1.35	0.95	28.30	54.23	3.86	< D.L.	1.16	0.06	4.92
Aralla 34	Bernesga Mb.	1.36	0.99	30.21	55.26	3.91	< D.L.	1.20	0.06	3.97
Aralla 35	Bernesga Mb.	1.38	1.04	31.23	54.75	3.98	< D.L.	1.20	0.06	4.49
Aralla 36	Bernesga Mb.	1.28	1.00	31.12	55.06	3.60	< D.L.	1.21	0.06	4.31
Aralla 37	Bernesga Mb.	1.29	1.05	31.30	55.57	3.64	< D.L.	1.19	0.06	3.64
Aralla 38	Bernesga Mb.	0.96	< D.L.	29.00	37.72	2.47	0.25	0.84	0.06	29.61
Aralla 39	Bernesga Mb.	1.29	1.00	30.93	54.87	3.65	< D.L.	1.26	0.06	4.30
Aralla 40	Bernesga Mb.	1.35	1.02	28.93	53.15	3.87	< D.L.	1.21	0.06	4.07
Aralla 41	Bernesga Mb.	1.32	< D.L.	30.57	51.40	3.76	< D.L.	1.17	0.06	6.99
Aralla 42	Bernesga Mb.	1.27	< D.L.	30.38	53.98	3.59	< D.L.	1.15	0.06	5.67
Aralla 43	Bernesga Mb.	1.06	< D.L.	31.20	43.22	2.83	0.24	0.96	0.06	24.41
Aralla 44	Bernesga Mb.	1.33	0.96	31.24	54.28	3.78	< D.L.	1.25	0.06	4.42
Aralla 45	Bernesga Mb.	1.21	1.01	33.21	50.47	3.34	0.19	1.15	0.06	10.07
Aralla 46	Bernesga Mb.	1.24	< D.L.	31.70	49.47	3.45	< D.L.	1.14	0.06	10.09
Aralla 47	Bernesga Mb.	1.31	0.97	31.15	55.63	3.70	< D.L.	1.22	0.06	3.56
Aralla 48	Bernesga Mb.	1.32	< D.L.	28.27	54.61	3.75	< D.L.	1.24	0.06	4.36
Aralla 49	Bernesga Mb.	0.98	< D.L.	31.49	53.64	2.53	< D.L.	1.00	0.06	10.70
Aralla 50	Bernesga Mb.	1.28	< D.L.	27.43	54.40	3.62	< D.L.	1.21	0.06	4.14

Sample	Formation	NaO Wt % (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO Wt%	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
Aralla 51	Bernesga Mb.	1.38	0.96	30.29	54.56	3.96	< D.L.	1.23	0.06	4.11
Aralla 52	Bernesga Mb.	1.31	0.94	30.47	53.01	3.70	< D.L.	1.21	0.06	5.35
Aralla 53	Bernesga Mb.	1.25	< D.L.	28.25	49.53	3.50	< D.L.	1.11	0.06	9.17
Aralla 54	Bernesga Mb.	1.33	1.03	31.26	54.86	3.78	< D.L.	1.22	0.06	4.18
Aralla 55	Bernesga Mb.	1.30	1.00	28.64	54.47	3.67	< D.L.	1.21	0.06	4.03
Aralla 56	Bernesga Mb.	1.27	1.02	29.02	55.92	3.58	< D.L.	1.19	0.06	4.02
Aralla 57	Bernesga Mb.	1.28	0.93	28.40	52.00	3.59	< D.L.	1.21	0.06	4.09
Aralla 58	Bernesga Mb.	1.30	1.04	31.03	55.84	3.69	< D.L.	1.20	0.06	4.72
Aralla 59	Bernesga Mb.	1.28	0.93	29.11	53.76	3.61	< D.L.	1.16	0.06	4.55
Aralla 60	Bernesga Mb.	1.27	< D.L.	30.83	51.78	3.56	< D.L.	1.12	0.06	7.31
Aralla 61	Bernesga Mb.	1.33	1.06	28.88	53.56	3.80	< D.L.	1.17	0.06	4.28
Aralla 62	Bernesga Mb.	1.32	1.08	30.55	55.17	3.75	< D.L.	1.15	0.06	4.88
Aralla 63	Bernesga Mb.	1.29	< D.L.	29.16	50.56	3.64	< D.L.	1.13	0.06	6.90
Aralla 64	Bernesga Mb.	1.33	0.99	30.70	53.17	3.79	< D.L.	1.18	0.06	4.55
Aralla 65	Bernesga Mb.	1.30	0.98	29.35	52.01	3.69	< D.L.	1.19	0.06	4.23
Aralla 66	Bernesga Mb.	1.28	< D.L.	30.79	52.04	3.61	< D.L.	1.16	0.06	6.49
Aralla 67	Bernesga Mb.	1.26	0.98	30.60	49.30	3.52	< D.L.	1.12	0.06	8.69
Aralla 68	Bernesga Mb.	1.23	1.26	31.58	50.60	3.44	0.19	1.11	0.06	9.31
Aralla 69	Bernesga Mb.	1.27	0.98	29.26	53.03	3.58	< D.L.	1.18	0.06	4.24
Aralla 70	Bernesga Mb.	1.26	1.00	28.05	53.06	3.53	< D.L.	1.17	0.06	5.70
Aralla 71	Bernesga Mb.	1.31	0.93	28.01	53.49	3.70	< D.L.	1.17	0.06	4.47
Aralla 72	Bernesga Mb.	1.33	1.05	31.01	54.29	3.79	< D.L.	1.19	0.06	4.55
Aralla 73	Bernesga Mb.	1.32	0.99	29.38	52.97	3.75	< D.L.	1.17	0.06	4.17
Aralla 74	Bernesga Mb.	1.30	1.00	30.36	51.32	3.67	< D.L.	1.18	0.06	4.96
Aralla 75	Bernesga Mb.	1.32	1.07	31.63	54.43	3.74	< D.L.	1.21	0.06	3.85

Sample	Formation	NaO Wt % (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO Wt%	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
Aralla 76	Bernesga Mb.	1.32	0.99	29.35	53.59	3.75	< D.L.	1.17	0.06	4.55
Aralla 77	Bernesga Mb.	1.36	0.95	28.26	53.32	3.89	< D.L.	1.20	0.06	3.99
Aralla 78	Bernesga Mb.	1.31	0.96	28.61	52.26	3.72	< D.L.	1.18	0.06	5.64
Aralla 79	Bernesga Mb.	1.32	1.11	29.43	52.96	3.77	< D.L.	1.26	0.06	4.10
Aralla 80	Bernesga Mb.	1.30	1.01	31.24	54.16	3.69	< D.L.	1.23	0.06	5.03
Aralla 81	Bernesga Mb.	1.31	1.09	28.24	53.74	3.73	< D.L.	1.23	0.06	4.12
Aralla 82	Bernesga Mb.	1.27	< D.L.	28.76	52.07	3.57	< D.L.	1.16	0.06	6.08
Aralla 83	Bernesga Mb.	1.25	0.99	28.63	51.10	3.51	< D.L.	1.13	0.06	7.39
Aralla 84	Bernesga Mb.	1.35	0.99	29.53	53.98	3.85	< D.L.	1.19	0.06	4.65
Aralla 85	Bernesga Mb.	1.42	1.00	28.13	53.05	4.12	< D.L.	1.21	0.06	3.89
Aralla 86	Bernesga Mb.	1.27	< D.L.	29.36	47.95	3.59	0.20	1.11	0.06	11.24
Aralla 87	Bernesga Mb.	1.34	1.01	28.66	53.35	3.82	< D.L.	1.21	0.06	4.79
Aralla 88	Bernesga Mb.	1.37	1.11	29.64	54.92	3.93	< D.L.	1.18	0.06	3.65
Aralla 89	Bernesga Mb.	1.38	1.08	30.50	52.74	3.98	< D.L.	1.17	0.06	6.17
Aralla 90	Bernesga Mb.	1.37	1.07	29.07	53.83	3.92	0.19	1.19	0.06	4.33
Aralla 91	Bernesga Mb.	1.42	1.24	30.89	54.07	4.10	< D.L.	1.18	0.06	4.49
Aralla 92	Bernesga Mb.	1.38	0.97	27.58	51.89	3.96	< D.L.	1.19	0.06	4.35
Aralla 93	Bernesga Mb.	1.33	1.19	28.53	52.13	3.78	< D.L.	1.14	0.06	4.92
Aralla 94	Bernesga Mb.	1.39	1.21	30.60	55.61	4.01	< D.L.	1.22	0.06	4.04
Aralla 95	Bernesga Mb.	1.40	1.16	28.38	53.28	4.02	< D.L.	1.19	0.06	3.92
Aralla 96	Bernesga Mb.	1.42	1.13	30.53	54.71	4.11	< D.L.	1.19	0.06	3.93
Aralla 97	Bernesga Mb.	1.38	1.15	30.19	54.39	3.96	< D.L.	1.21	0.06	4.73
Aralla 98	Bernesga Mb.	1.41	1.28	29.99	53.60	4.08	< D.L.	1.19	0.06	4.27
Aralla 99	Bernesga Mb.	1.34	1.11	27.20	53.27	3.81	< D.L.	1.18	0.06	4.26
Aralla 100	Bernesga Mb.	1.38	1.23	29.00	52.45	3.95	< D.L.	1.17	0.06	4.32

Sample	Formation	NaO Wt % (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO Wt%	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
Aralla 101	Bernesga Mb.	1.40	1.53	30.68	52.10	4.02	0.21	1.18	0.07	5.26
Aralla 102	Bernesga Mb.	1.41	1.22	30.07	53.65	4.07	< D.L.	1.19	0.06	4.52
Aralla 103	Bernesga Mb.	1.39	1.17	29.38	50.80	4.00	< D.L.	1.20	0.06	4.39
Aralla 104	Bernesga Mb.	1.41	1.18	28.52	53.11	4.07	< D.L.	1.19	0.06	4.28
Aralla 105	Bernesga Mb.	1.38	1.22	29.62	54.77	3.95	< D.L.	1.18	0.06	4.80
Aralla 106	Bernesga Mb.	1.38	1.86	31.99	51.12	3.97	0.44	1.12	0.09	7.96
Aralla 107	Bernesga Mb.	1.50	1.29	31.80	54.76	4.40	< D.L.	1.22	0.06	4.85
Aralla 108	Bernesga Mb.	1.50	1.13	29.20	52.93	4.41	< D.L.	1.23	0.06	4.77
Aralla 109	Bernesga Mb.	1.31	1.05	26.64	55.57	3.73	< D.L.	1.15	0.06	4.74
Aralla 110	Bernesga Mb.	1.54	1.11	28.82	53.87	4.54	< D.L.	1.24	0.06	4.04
Aralla 111	Bernesga Mb.	1.50	1.12	28.82	53.79	4.40	< D.L.	1.22	0.06	4.70
Aralla 112	Bernesga Mb.	1.51	1.09	28.14	54.22	4.42	< D.L.	1.22	0.06	3.88
Aralla 113	Bernesga Mb.	1.50	1.14	28.53	55.53	4.41	< D.L.	1.23	0.06	4.10
Aralla 114	Bernesga Mb.	1.41	1.15	29.87	56.59	4.09	< D.L.	1.20	0.06	4.30
Aralla 115	Bernesga Mb.	1.39	1.22	29.82	56.28	4.00	< D.L.	1.19	0.06	4.81
Aralla 116	Bernesga Mb.	1.42	1.07	30.40	55.78	4.11	< D.L.	1.21	0.06	4.26
Aralla 117	Bernesga Mb.	1.28	1.22	31.04	49.64	3.60	< D.L.	1.16	0.06	8.84
Aralla 118	Bernesga Mb.	1.24	< D.L.	26.35	51.82	3.48	< D.L.	1.10	0.05	8.12
Aralla 119	Bernesga Mb.	1.39	1.23	30.74	53.82	4.01	< D.L.	1.14	0.06	5.93
Aralla 120	Bernesga Mb.	1.45	1.02	29.74	53.54	4.21	< D.L.	1.18	0.06	5.15
Aralla 121	Bernesga Mb.	1.40	1.35	31.20	54.43	4.04	< D.L.	1.24	0.06	4.69
Aralla 122	Bernesga Mb.	1.32	1.06	29.46	51.54	3.74	< D.L.	1.16	0.06	5.37
Aralla 123	Bernesga Mb.	1.44	1.20	30.96	53.25	4.19	< D.L.	1.20	0.06	4.75
Aralla 124	Bernesga Mb.	1.35	1.19	28.69	49.42	3.86	< D.L.	1.14	0.07	5.84
Aralla 125	Bernesga Mb.	1.27	1.03	27.89	51.87	3.58	< D.L.	1.13	0.06	4.87

Sample	Formation	NaO Wt % (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO Wt%	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
Aralla 126	Bernesga Mb.	1.36	1.18	28.40	51.97	3.89	< D.L.	1.16	0.06	5.55
Aralla 127	Bernesga Mb.	1.32	1.18	28.36	52.35	3.76	< D.L.	1.12	0.06	5.63
Aralla 128	Bernesga Mb.	1.40	1.29	29.08	52.30	4.02	< D.L.	1.14	0.07	5.14
Aralla 129	Bernesga Mb.	1.42	1.40	28.26	51.90	4.11	< D.L.	1.18	0.06	4.55
Aralla 130	Bernesga Mb.	1.43	1.40	29.14	54.07	4.14	< D.L.	1.16	0.06	4.26
Aralla 131	Bernesga Mb.	1.20	1.05	26.31	58.72	3.31	< D.L.	0.99	0.06	4.54
Aralla 132	Bernesga Mb.	1.34	1.20	31.17	48.55	3.83	0.22	1.08	0.07	11.96
Aralla 133	Bernesga Mb.	1.38	1.24	28.62	56.29	3.98	< D.L.	1.14	0.06	4.35
Aralla 134	Bernesga Mb.	1.18	1.11	28.36	52.04	3.24	< D.L.	1.13	0.06	6.02
Aralla 135	Bernesga Mb.	1.46	1.31	29.64	53.90	4.26	< D.L.	1.19	0.06	4.45
Aralla 136	Bernesga Mb.	1.45	1.24	31.47	50.23	4.23	< D.L.	1.14	0.06	8.84
Aralla 137	Bernesga Mb.	1.54	1.20	28.57	52.53	4.53	< D.L.	1.23	0.06	4.12
Aralla 138	Bernesga Mb.	1.46	1.16	27.51	53.46	4.25	< D.L.	1.17	0.06	4.11
Aralla 139	Bernesga Mb.	1.48	1.22	28.98	53.89	4.32	0.19	1.18	0.06	4.75
Aralla 140	Bernesga Mb.	1.43	1.11	29.34	51.44	4.16	< D.L.	1.14	0.06	7.04
Aralla 141	Bernesga Mb.	1.40	1.16	26.87	54.68	4.04	< D.L.	1.12	0.06	4.56
Aralla 142	Bernesga Mb.	1.41	1.20	28.51	53.91	4.06	< D.L.	1.15	0.06	5.13
Aralla 143	Bernesga Mb.	1.37	1.24	28.97	54.98	3.95	< D.L.	1.09	0.06	4.70
Aralla 144	Bernesga Mb.	1.45	1.25	30.20	51.35	4.22	0.19	1.19	0.06	6.35
Aralla 145	Bernesga Mb.	1.29	1.00	28.00	50.21	3.66	< D.L.	1.16	0.08	6.19
Aralla 146	Bernesga Mb.	1.49	1.38	30.96	50.66	4.36	< D.L.	1.17	0.06	5.97
Aralla 147	Bernesga Mb.	1.40	1.09	28.95	50.89	4.03	< D.L.	1.17	0.06	4.51
Aralla 148	Bernesga Mb.	1.47	1.26	30.99	53.44	4.30	< D.L.	1.21	0.06	4.95
Aralla 149	Bernesga Mb.	1.24	1.03	25.53	59.00	3.47	< D.L.	0.98	0.06	4.59
Aralla 150	Bernesga Mb.	1.46	1.13	29.83	53.09	4.27	< D.L.	1.20	0.05	5.43

Sample	Formation	NaO Wt % (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO Wt%	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
Aralla 151	Bernesga Mb.	1.30	1.22	31.14	48.93	3.66	0.20	1.04	0.08	15.21
Aralla 152	Bernesga Mb.	1.57	1.23	30.53	56.08	4.65	< D.L.	1.18	0.06	4.46
Aralla 153	Bernesga Mb.	1.42	1.24	30.16	55.62	4.12	< D.L.	1.14	0.06	6.12
Aralla 154	Bernesga Mb.	1.50	1.29	29.28	53.24	4.40	< D.L.	1.19	0.06	5.39
Aralla 155	Bernesga Mb.	1.44	1.09	28.55	56.43	4.18	< D.L.	1.14	0.06	4.93
Aralla 156	Bernesga Mb.	1.46	1.32	30.69	55.99	4.26	< D.L.	1.10	0.06	5.39
Aralla 157	Bernesga Mb.	1.41	1.40	29.61	52.66	4.08	< D.L.	1.15	0.06	6.57
Aralla 158	Bernesga Mb.	1.48	1.86	30.97	53.96	4.33	< D.L.	1.19	0.06	4.90
Aralla 159	Bernesga Mb.	1.50	1.34	29.12	54.19	4.41	< D.L.	1.20	0.06	5.33
Aralla 160	Bernesga Mb.	1.20	1.09	25.53	58.34	3.31	< D.L.	0.97	0.07	6.44
Aralla 161	Bernesga Mb.	1.56	1.38	31.40	51.35	4.62	< D.L.	1.11	0.12	9.14
Aralla 162	Bernesga Mb.	1.60	2.13	31.05	53.69	4.75	< D.L.	1.17	0.06	4.93
Aralla 163	Bernesga Mb.	1.56	1.60	28.75	53.73	4.60	< D.L.	1.19	0.06	4.66
Aralla 164	Bernesga Mb.	1.49	1.75	27.78	53.01	4.36	< D.L.	1.14	0.06	4.79
Aralla 165	Bernesga Mb.	1.53	1.57	29.72	55.19	4.52	< D.L.	1.19	0.06	4.16
Aralla 166	Bernesga Mb.	1.54	1.52	30.30	54.52	4.55	< D.L.	1.19	0.06	5.16
Aralla 167	Bernesga Mb.	1.54	1.51	29.92	52.98	4.55	< D.L.	1.20	0.06	5.68
Aralla 168	Bernesga Mb.	1.60	1.37	30.28	53.55	4.78	< D.L.	1.21	0.06	5.23
Aralla 169	Bernesga Mb.	1.55	1.60	28.52	53.37	4.58	< D.L.	1.15	0.06	4.83
Aralla 170	Bernesga Mb.	0.85	1.01	19.29	70.81	2.05	< D.L.	0.65	0.06	3.92
Aralla 171	Bernesga Mb.	1.50	1.47	30.98	48.99	4.39	< D.L.	1.12	0.06	10.85
Aralla 172	Bernesga Mb.	1.59	1.58	32.67	54.63	4.74	< D.L.	1.23	0.06	5.28
Aralla 173	Bernesga Mb.	1.54	1.25	29.58	57.80	4.54	< D.L.	1.13	0.06	4.17
Aralla 174	Bernesga Mb.	1.21	< D.L.	28.10	56.08	3.36	< D.L.	0.89	0.06	10.10
Aralla 175	Bernesga Mb.	1.58	1.30	29.79	56.28	4.68	< D.L.	1.16	0.06	4.92

Sample	Formation	NaO Wt % (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO Wt%	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
Aralla 176	Bernesga Mb.	1.53	1.15	27.79	55.34	4.50	< D.L.	1.20	0.06	4.75
Aralla 177	Bernesga Mb.	1.26	1.09	27.41	53.94	3.55	0.21	0.93	0.06	10.66
Aralla 178	Bernesga Mb.	1.17	< D.L.	25.16	49.93	3.23	< D.L.	0.86	0.06	14.39
Aralla 179	Bernesga Mb.	1.45	1.15	26.55	57.15	4.20	< D.L.	1.07	0.06	4.79
Aralla 180	Bernesga Mb.	1.53	1.24	28.59	57.67	4.51	< D.L.	1.13	0.06	4.50
Aralla 181	Bernesga Mb.	1.47	1.07	27.58	50.11	4.29	0.20	1.09	0.06	8.92
Aralla 182	Bernesga Mb.	1.53	1.28	30.12	57.56	4.51	< D.L.	1.15	0.06	5.51
Aralla 183	Bernesga Mb.	1.41	1.21	27.44	57.85	4.06	< D.L.	1.01	0.06	5.53
Aralla 184	Bernesga Mb.	1.60	1.52	30.76	57.01	4.78	< D.L.	1.16	0.06	5.37
Aralla 185	Villasimpliz Mb.	0.64	< D.L.	9.45	71.00	1.28	< D.L.	0.55	0.06	5.22
Aralla 186	Villasimpliz Mb.	1.09	1.20	21.59	65.29	2.93	< D.L.	0.79	0.06	5.74
Aralla 187	Villasimpliz Mb.	1.44	1.36	27.25	59.88	4.19	< D.L.	0.97	0.06	5.56
Aralla 188	Villasimpliz Mb.	0.60	1.04	11.35	72.84	1.15	< D.L.	0.48	0.06	5.26
Aralla 189	Villasimpliz Mb.	0.58	< D.L.	11.58	66.96	1.08	< D.L.	0.54	0.23	9.74
Aralla 190	Villasimpliz Mb.	0.98	0.94	18.59	67.51	2.53	< D.L.	0.64	0.06	4.52
Aralla 191	Villasimpliz Mb.	0.52	< D.L.	7.02	78.90	0.87	< D.L.	0.45	0.06	4.81
Aralla 192	Villasimpliz Mb.	0.72	< D.L.	11.42	69.00	1.57	< D.L.	0.51	0.07	7.43
Aralla 193	Villasimpliz Mb.	1.51	1.32	25.86	57.20	4.45	< D.L.	0.96	0.06	4.87
Aralla 194	Villasimpliz Mb.	1.64	1.18	29.27	56.15	4.90	< D.L.	1.15	0.06	4.64
Aralla 195	Villasimpliz Mb.	1.65	1.54	30.71	48.73	4.93	< D.L.	1.15	0.06	10.30
Aralla 196	Villasimpliz Mb.	1.60	1.27	27.96	56.45	4.76	< D.L.	1.12	0.13	7.28
Aralla 197	Villasimpliz Mb.	0.91	< D.L.	13.69	72.14	2.27	< D.L.	0.72	0.06	4.81
Aralla 198	Villasimpliz Mb.	0.92	1.04	14.53	73.39	2.31	< D.L.	0.72	0.06	4.75
Aralla 199	Villasimpliz Mb.	1.94	1.52	31.16	53.05	5.98	< D.L.	1.19	0.10	6.47
Aralla 200	Villasimpliz Mb.	0.66	< D.L.	7.57	74.32	1.36	< D.L.	0.35	0.09	5.67

Sample	Formation	NaO Wt % (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO Wt%	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
Aralla 201	Villasimpliz Mb.	0.69	< D.L.	8.55	72.76	1.49	< D.L.	0.53	0.06	5.58
Aralla 202	Villasimpliz Mb.	0.83	< D.L.	11.19	72.06	1.98	< D.L.	0.63	0.06	4.58
Aralla 203	Villasimpliz Mb.	1.88	1.75	30.36	55.28	5.76	< D.L.	1.26	0.06	5.11
Aralla 204	Villasimpliz Mb.	0.92	< D.L.	13.85	69.22	2.30	< D.L.	0.52	0.06	5.18
Aralla 205	Villasimpliz Mb.	0.97	0.69	13.66	70.43	2.47	< D.L.	0.57	0.06	4.58
Aralla 206	Villasimpliz Mb.	0.90	< D.L.	12.44	74.97	2.23	< D.L.	0.42	0.06	4.47
Aralla 207	Villasimpliz Mb.	1.16	1.01	17.25	67.94	3.16	< D.L.	0.83	0.06	4.61
Aralla 208	Villasimpliz Mb.	0.72	< D.L.	8.03	78.59	1.57	< D.L.	0.42	0.05	3.91
Aralla 209	Villasimpliz Mb.	1.13	1.06	17.77	72.74	3.06	< D.L.	0.72	0.06	3.84
Aralla 210	Villasimpliz Mb.	0.86	< D.L.	12.25	76.00	2.10	< D.L.	0.67	0.06	4.04
Aralla 211	Villasimpliz Mb.	0.93	< D.L.	12.64	68.64	2.35	< D.L.	0.56	0.06	5.14
Aralla 212	Villasimpliz Mb.	0.71	< D.L.	7.52	76.41	1.54	< D.L.	0.61	0.06	3.93
Aralla 213	Villasimpliz Mb.	1.13	< D.L.	15.92	73.02	3.06	< D.L.	0.77	0.06	4.03
Aralla 214	Villasimpliz Mb.	1.22	0.99	16.43	70.17	3.40	< D.L.	0.79	0.06	4.17
Aralla 215	Villasimpliz Mb.	2.00	1.58	27.46	53.63	6.20	< D.L.	1.29	0.06	6.03
Aralla 216	Villasimpliz Mb.	0.85	< D.L.	10.43	75.01	2.06	< D.L.	0.60	0.06	4.43
Aralla 217	Villasimpliz Mb.	1.23	1.04	18.79	67.25	3.42	< D.L.	0.79	0.06	5.11
Aralla 218	Villasimpliz Mb.	0.58	< D.L.	5.63	80.04	1.09	< D.L.	0.29	0.06	3.82
Aralla 219	Villasimpliz Mb.	1.19	1.08	16.88	70.51	3.29	< D.L.	0.67	0.06	4.19
Aralla 220	Villasimpliz Mb.	1.60	1.21	23.38	62.75	4.75	< D.L.	0.87	0.08	4.41
Aralla 221	Villasimpliz Mb.	0.75	< D.L.	7.60	76.93	1.69	< D.L.	0.35	0.06	3.86
Aralla 222	Villasimpliz Mb.	1.18	1.02	17.05	71.46	3.24	< D.L.	0.69	0.06	4.39
Aralla 223	Villasimpliz Mb.	1.27	0.99	18.07	68.64	3.57	< D.L.	0.75	0.06	3.98
Aralla 224	Villasimpliz Mb.	0.58	< D.L.	4.75	79.68	1.07	< D.L.	0.37	0.07	4.14
Aralla 225	Villasimpliz Mb.	0.89	< D.L.	10.84	74.20	2.21	< D.L.	0.47	0.07	5.02

Sample	Formation	NaO Wt % (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO Wt%	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
Aralla 226	Villasimpliz Mb.	0.80	< D.L.	8.59	78.63	1.89	< D.L.	0.54	0.06	3.73
Aralla 227	Villasimpliz Mb.	0.64	< D.L.	6.39	82.57	1.31	< D.L.	0.35	0.06	3.63
Aralla 228	Villasimpliz Mb.	1.12	< D.L.	14.75	69.16	3.04	< D.L.	0.75	0.13	5.09
Aralla 229	Villasimpliz Mb.	1.09	0.99	14.76	71.34	2.92	< D.L.	0.72	0.08	4.26
Aralla 230	Villasimpliz Mb.	1.88	1.63	28.12	55.90	5.76	< D.L.	1.21	0.06	5.01
Aralla 231	Villasimpliz Mb.	1.42	1.29	21.44	61.14	4.10	< D.L.	0.96	0.06	4.74
Aralla 232	Villasimpliz Mb.	1.75	1.43	30.11	56.56	5.29	< D.L.	1.16	0.06	4.99
Aralla 233	Villasimpliz Mb.	1.70	1.34	28.01	55.61	5.12	< D.L.	1.15	0.07	5.53
Aralla 234	Villasimpliz Mb.	1.66	1.53	27.58	57.82	4.98	< D.L.	1.20	0.06	4.68
Aralla 235	Villasimpliz Mb.	0.66	< D.L.	9.41	76.49	1.38	< D.L.	0.56	0.06	4.73
Aralla 236	Villasimpliz Mb.	1.58	1.54	25.86	60.39	4.68	< D.L.	1.08	0.06	5.23
Aralla 237	Villasimpliz Mb.	1.73	1.54	28.05	55.98	5.23	< D.L.	1.15	0.06	5.08
Aralla 238	Villasimpliz Mb.	1.77	1.46	29.54	52.17	5.39	< D.L.	1.17	0.06	4.98
Aralla 239	Villasimpliz Mb.	0.52	< D.L.	4.57	77.49	0.86	< D.L.	0.33	0.06	4.56
Aralla 240	Villasimpliz Mb.	1.74	1.39	28.28	53.01	5.26	< D.L.	1.26	0.06	4.78
Aralla 241	Villasimpliz Mb.	1.64	1.65	28.62	57.79	4.92	< D.L.	1.17	0.06	4.80

2.2 Trace elements

Sample	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
Aralla 1	Barrios Fm	0.00	0.00	107.26	0.00	16.72	0.00	0.00	0.00	9.02	0.00	15.35	0.00	9.22
Aralla 2	Getino Bed	0.00	824.14	170.30	0.00	117.18	27.52	0.00	32.35	15.92	0.00	54.76	0.00	29.82
Aralla 3	Getino Bed	2420.16	1080.69	1105.97	0.00	191.37	72.46	0.00	123.41	29.31	41.66	282.52	3.87	36.24
Aralla 4	Bernesga Mb.	0.00	430.68	620.57	17.24	331.82	137.66	0.00	54.38	14.06	0.00	21.02	0.00	167.94
Aralla 5	Bernesga Mb.	0.00	588.43	603.96	0.00	311.66	138.82	0.00	63.10	13.32	0.00	17.23	0.00	172.73
Aralla 6	Bernesga Mb.	0.00	0.00	610.64	20.75	226.47	137.21	0.00	45.37	0.00	0.00	11.43	0.00	170.12
Aralla 7	Bernesga Mb.	0.00	0.00	598.99	0.00	305.06	144.67	0.00	60.33	0.00	0.00	9.61	0.00	175.59
Aralla 8	Bernesga Mb.	0.00	310.48	629.15	0.00	394.01	143.91	0.00	61.39	16.62	0.00	31.68	0.00	165.12
Aralla 9	Bernesga Mb.	0.00	0.00	614.39	0.00	229.53	133.00	0.00	34.73	16.08	0.00	16.13	0.00	167.06
Aralla 10	Bernesga Mb.	0.00	0.00	623.01	0.00	338.07	144.77	0.00	56.66	25.40	0.00	26.96	0.00	163.86
Aralla 11	Bernesga Mb.	0.00	0.00	640.88	25.97	354.37	155.91	0.00	55.22	22.08	0.00	21.61	0.00	162.83
Aralla 12	Bernesga Mb.	0.00	375.10	685.79	0.00	266.94	117.48	0.00	90.31	29.31	0.00	28.13	2.09	153.78
Aralla 13	Bernesga Mb.	0.00	0.00	641.21	0.00	324.93	143.17	0.00	77.67	11.49	0.00	29.13	2.02	166.33
Aralla 14	Bernesga Mb.	0.00	0.00	594.03	0.00	183.06	114.22	0.00	35.39	15.38	0.00	6.73	0.00	170.43
Aralla 15	Bernesga Mb.	0.00	0.00	602.48	15.78	194.36	119.42	0.00	39.46	15.46	0.00	10.15	0.00	174.67
Aralla 16	Bernesga Mb.	0.00	0.00	608.12	0.00	258.12	137.55	0.00	59.74	0.00	0.00	7.91	0.00	173.68
Aralla 17	Bernesga Mb.	0.00	0.00	721.80	0.00	292.03	127.92	0.00	75.56	58.53	0.00	39.92	2.25	153.22
Aralla 18	Bernesga Mb.	0.00	0.00	614.75	0.00	303.22	136.67	0.00	46.03	22.82	0.00	9.53	0.00	166.27
Aralla 19	Bernesga Mb.	0.00	0.00	608.44	0.00	295.15	139.78	0.00	49.75	19.35	0.00	12.76	0.00	162.73
Aralla 20	Bernesga Mb.	0.00	0.00	582.52	0.00	242.61	122.15	0.00	44.23	12.09	0.00	8.73	0.00	162.06
Aralla 21	Bernesga Mb.	0.00	454.06	838.18	0.00	279.85	95.31	0.00	99.64	65.17	40.76	45.14	3.56	123.04
Aralla 22	Bernesga Mb.	0.00	0.00	778.63	0.00	223.65	114.73	0.00	85.21	34.16	0.00	32.13	0.00	145.14
Aralla 23	Bernesga Mb.	0.00	0.00	602.62	17.44	207.95	132.45	0.00	56.26	11.64	0.00	10.83	0.00	165.58
Aralla 24	Bernesga Mb.	0.00	0.00	609.62	17.63	203.78	138.28	0.00	47.27	10.27	0.00	5.65	0.00	168.11
Aralla 25	Bernesga Mb.	0.00	0.00	632.32	21.98	199.97	124.02	0.00	40.56	0.00	0.00	5.13	0.00	171.85

Sample	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
Aralla 1	Barrios Fm	171.83	79.13	< D.L	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< D.L	0.00
Aralla 2	Getino Bed	218.95	266.87	6.80	0.00	0.00	0.00	0.00	0.00	23.54	0.00	22.62	3679.62	24.31
Aralla 3	Getino Bed	277.08	245.39	22.82	0.00	0.00	108.52	13.11	0.00	61.03	75.41	65.79	652.03	43.37
Aralla 4	Bernesga Mb.	296.19	169.31	23.28	3.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	177.31	0.00
Aralla 5	Bernesga Mb.	289.25	166.47	22.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	222.35	0.00
Aralla 6	Bernesga Mb.	300.88	162.19	24.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	185.03	21.36
Aralla 7	Bernesga Mb.	270.94	162.58	24.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	150.08	0.00
Aralla 8	Bernesga Mb.	252.04	175.81	24.67	4.15	0.00	0.00	0.00	21.65	0.00	0.00	0.00	213.21	0.00
Aralla 9	Bernesga Mb.	243.25	176.96	24.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	191.74	22.58
Aralla 10	Bernesga Mb.	243.19	177.10	25.54	3.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	210.36	0.00
Aralla 11	Bernesga Mb.	250.07	163.22	23.60	0.00	0.00	0.00	0.00	23.60	0.00	0.00	0.00	207.48	0.00
Aralla 12	Bernesga Mb.	226.68	157.05	21.52	4.24	0.00	0.00	0.00	0.00	0.00	0.00	12.37	320.88	0.00
Aralla 13	Bernesga Mb.	239.21	148.89	22.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	116.29	0.00
Aralla 14	Bernesga Mb.	225.37	153.57	22.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	180.50	0.00
Aralla 15	Bernesga Mb.	222.27	142.13	22.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	194.75	21.02
Aralla 16	Bernesga Mb.	225.58	141.73	22.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	217.00	0.00
Aralla 17	Bernesga Mb.	220.14	123.18	19.66	0.00	0.00	0.00	0.00	0.00	22.12	0.00	25.21	499.63	25.23
Aralla 18	Bernesga Mb.	220.65	135.46	20.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	198.43	0.00
Aralla 19	Bernesga Mb.	223.02	145.14	22.08	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	233.50	0.00
Aralla 20	Bernesga Mb.	221.78	154.07	21.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	157.57	0.00
Aralla 21	Bernesga Mb.	211.60	133.84	17.31	0.00	0.00	62.61	0.00	0.00	30.47	67.85	58.14	620.56	0.00
Aralla 22	Bernesga Mb.	214.74	131.25	19.09	0.00	0.00	0.00	0.00	0.00	27.54	38.82	41.25	528.72	34.88
Aralla 23	Bernesga Mb.	222.88	140.96	21.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	215.29	0.00
Aralla 24	Bernesga Mb.	216.11	146.32	21.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	214.58	0.00
Aralla 25	Bernesga Mb.	213.07	145.63	22.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	104.80	0.00

Sample	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
Aralla 1	Barrios Fm	0.00	0.00	0.00	0.00	2.80	0.00
Aralla 2	Getino Bed	0.00	0.00	0.00	0.00	0.00	0.00
Aralla 3	Getino Bed	0.00	0.00	0.00	0.00	0.00	0.00
Aralla 4	Bernesga Mb.	0.00	5.80	32.65	0.00	20.95	16.49
Aralla 5	Bernesga Mb.	0.00	6.76	29.34	0.00	24.96	13.36
Aralla 6	Bernesga Mb.	0.00	7.09	0.00	0.00	23.48	12.15
Aralla 7	Bernesga Mb.	0.00	5.41	0.00	0.00	22.77	18.46
Aralla 8	Bernesga Mb.	0.00	6.63	44.99	0.00	22.02	17.09
Aralla 9	Bernesga Mb.	0.00	5.87	36.70	0.00	21.26	16.01
Aralla 10	Bernesga Mb.	0.00	4.93	80.49	0.00	22.09	16.47
Aralla 11	Bernesga Mb.	0.00	6.53	32.68	0.00	21.49	18.22
Aralla 12	Bernesga Mb.	0.00	7.16	31.38	0.00	16.14	11.89
Aralla 13	Bernesga Mb.	0.00	6.20	0.00	0.00	21.42	13.46
Aralla 14	Bernesga Mb.	0.00	0.00	0.00	0.00	20.02	12.86
Aralla 15	Bernesga Mb.	0.00	0.00	0.00	0.00	19.24	11.52
Aralla 16	Bernesga Mb.	0.00	0.00	0.00	0.00	19.34	11.52
Aralla 17	Bernesga Mb.	0.00	5.99	0.00	0.00	13.34	10.90
Aralla 18	Bernesga Mb.	0.00	4.78	0.00	0.00	20.94	12.60
Aralla 19	Bernesga Mb.	0.00	6.85	30.13	0.00	19.07	8.33
Aralla 20	Bernesga Mb.	0.00	0.00	40.04	0.00	19.35	8.24
Aralla 21	Bernesga Mb.	0.00	10.74	0.00	0.00	0.00	8.05
Aralla 22	Bernesga Mb.	0.00	0.00	0.00	0.00	7.22	0.00
Aralla 23	Bernesga Mb.	0.00	5.56	0.00	0.00	20.23	10.99
Aralla 24	Bernesga Mb.	0.00	0.00	29.37	0.00	19.92	11.03
Aralla 25	Bernesga Mb.	0.00	6.70	35.75	0.00	20.05	10.70

Sample	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
Aralla 26	Bernesga Mb.	0.00	508.31	1169.89	0.00	220.42	104.65	0.00	236.20	48.61	92.63	53.52	6.55	75.20
Aralla 27	Bernesga Mb.	0.00	0.00	604.61	0.00	208.72	144.64	0.00	53.40	13.45	0.00	9.49	0.00	162.35
Aralla 28	Bernesga Mb.	0.00	365.84	615.33	0.00	227.10	139.14	0.00	60.30	12.16	0.00	10.44	0.00	156.95
Aralla 29	Bernesga Mb.	0.00	0.00	611.49	18.25	229.25	125.41	0.00	46.29	0.00	0.00	0.00	0.00	159.26
Aralla 30	Bernesga Mb.	0.00	0.00	616.35	0.00	251.45	135.99	0.00	57.66	12.26	0.00	6.71	2.09	158.84
Aralla 31	Bernesga Mb.	0.00	0.00	610.23	17.62	249.77	131.76	0.00	47.70	36.49	0.00	13.96	2.01	151.62
Aralla 32	Bernesga Mb.	0.00	0.00	624.82	0.00	244.36	127.09	0.00	54.43	21.77	0.00	13.69	2.27	155.58
Aralla 33	Bernesga Mb.	0.00	0.00	662.81	18.41	246.99	116.83	0.00	51.23	34.28	0.00	18.77	2.26	154.08
Aralla 34	Bernesga Mb.	0.00	0.00	625.32	21.20	260.25	131.31	0.00	43.11	27.95	0.00	11.36	1.91	162.71
Aralla 35	Bernesga Mb.	0.00	0.00	663.50	0.00	237.15	127.55	0.00	59.68	32.63	0.00	19.01	2.36	163.61
Aralla 36	Bernesga Mb.	0.00	0.00	652.64	22.23	268.63	137.83	0.00	51.49	18.08	0.00	13.73	0.00	153.43
Aralla 37	Bernesga Mb.	0.00	0.00	614.85	0.00	260.86	132.49	0.00	48.59	17.33	0.00	5.64	0.00	160.15
Aralla 38	Bernesga Mb.	0.00	1075.72	1213.09	0.00	295.13	120.64	0.00	187.24	106.67	74.25	59.23	0.00	81.34
Aralla 39	Bernesga Mb.	0.00	0.00	527.52	0.00	256.35	135.29	0.00	59.60	41.75	0.00	12.13	0.00	157.54
Aralla 40	Bernesga Mb.	0.00	3398.71	597.84	16.84	231.11	133.15	0.00	84.28	28.23	0.00	10.12	2.18	170.85
Aralla 41	Bernesga Mb.	0.00	0.00	735.08	0.00	269.13	113.23	0.00	100.17	34.00	0.00	28.79	2.74	147.67
Aralla 42	Bernesga Mb.	0.00	0.00	727.94	0.00	228.52	120.63	0.00	60.53	43.55	35.39	26.11	2.52	142.45
Aralla 43	Bernesga Mb.	0.00	839.82	1066.96	0.00	193.79	100.26	0.00	146.23	56.19	60.78	61.67	4.12	92.45
Aralla 44	Bernesga Mb.	0.00	0.00	647.59	17.36	212.35	131.22	0.00	52.24	26.41	0.00	14.78	0.00	157.69
Aralla 45	Bernesga Mb.	0.00	298.30	851.88	0.00	192.54	111.20	0.00	94.74	37.18	39.34	37.06	3.39	126.90
Aralla 46	Bernesga Mb.	0.00	287.62	843.41	0.00	214.27	126.63	0.00	94.83	25.96	42.43	37.40	3.60	132.33
Aralla 47	Bernesga Mb.	0.00	0.00	617.19	0.00	221.94	137.45	0.00	52.48	12.44	0.00	0.00	0.00	168.35
Aralla 48	Bernesga Mb.	0.00	0.00	650.19	0.00	224.22	125.46	0.00	47.56	24.04	0.00	17.89	0.00	151.53
Aralla 49	Bernesga Mb.	0.00	293.25	889.14	0.00	187.38	107.94	0.00	105.22	28.72	42.22	38.88	2.65	86.48
Aralla 50	Bernesga Mb.	0.00	0.00	645.02	20.60	223.83	132.66	0.00	43.19	39.15	0.00	13.46	2.53	146.83

Sample	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
Aralla 26	Bernesga Mb.	188.20	88.56	11.59	0.00	20.48	143.58	19.87	61.73	59.23	136.53	107.81	871.93	0.00
Aralla 27	Bernesga Mb.	217.41	142.88	21.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	212.27	24.53
Aralla 28	Bernesga Mb.	215.72	152.58	21.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	153.64	0.00
Aralla 29	Bernesga Mb.	214.23	155.28	21.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	135.33	0.00
Aralla 30	Bernesga Mb.	208.67	153.85	20.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	147.12	0.00
Aralla 31	Bernesga Mb.	209.91	154.06	21.04	3.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	194.70	23.09
Aralla 32	Bernesga Mb.	205.52	166.52	21.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	245.27	0.00
Aralla 33	Bernesga Mb.	201.48	149.10	20.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.71	322.43	0.00
Aralla 34	Bernesga Mb.	203.39	141.28	21.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	193.47	0.00
Aralla 35	Bernesga Mb.	200.71	131.59	21.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	286.88	0.00
Aralla 36	Bernesga Mb.	201.83	138.99	20.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	183.58	0.00
Aralla 37	Bernesga Mb.	202.86	133.71	21.90	0.00	0.00	0.00	0.00	21.68	0.00	0.00	0.00	163.72	0.00
Aralla 38	Bernesga Mb.	180.99	89.22	12.36	0.00	0.00	127.11	14.34	0.00	46.82	93.50	86.64	841.49	0.00
Aralla 39	Bernesga Mb.	201.62	131.26	20.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1645.39	0.00
Aralla 40	Bernesga Mb.	198.13	126.82	21.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	602.52	23.65
Aralla 41	Bernesga Mb.	195.08	125.28	19.78	0.00	0.00	0.00	0.00	0.00	23.44	44.34	33.29	532.51	0.00
Aralla 42	Bernesga Mb.	191.61	150.76	19.89	4.00	0.00	0.00	0.00	0.00	0.00	0.00	17.98	353.92	24.14
Aralla 43	Bernesga Mb.	180.87	101.48	14.52	0.00	0.00	124.36	0.00	0.00	47.64	99.70	81.18	842.79	0.00
Aralla 44	Bernesga Mb.	195.89	128.82	21.06	0.00	0.00	0.00	0.00	23.71	0.00	0.00	0.00	270.50	26.69
Aralla 45	Bernesga Mb.	188.16	113.63	17.34	0.00	0.00	49.75	0.00	0.00	37.92	57.54	49.41	575.54	0.00
Aralla 46	Bernesga Mb.	188.27	113.78	18.48	0.00	0.00	49.29	0.00	0.00	26.52	50.15	45.38	594.41	33.67
Aralla 47	Bernesga Mb.	195.52	134.02	23.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	116.71	0.00
Aralla 48	Bernesga Mb.	193.47	156.73	21.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	257.98	0.00
Aralla 49	Bernesga Mb.	179.75	101.82	15.61	0.00	0.00	66.86	0.00	0.00	34.45	49.53	46.98	497.05	0.00
Aralla 50	Bernesga Mb.	191.65	157.13	21.28	0.00	0.00	0.00	0.00	22.97	0.00	0.00	0.00	229.53	29.76

Sample	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
Aralla 26	Bernesga Mb.	0.00	0.00	0.00	0.00	0.00	0.00
Aralla 27	Bernesga Mb.	0.00	5.93	0.00	0.00	19.57	13.24
Aralla 28	Bernesga Mb.	0.00	5.41	31.88	0.00	19.14	11.43
Aralla 29	Bernesga Mb.	0.00	5.46	33.49	0.00	18.94	13.70
Aralla 30	Bernesga Mb.	0.00	5.70	36.07	0.00	19.44	13.88
Aralla 31	Bernesga Mb.	0.00	0.00	0.00	0.00	16.85	14.36
Aralla 32	Bernesga Mb.	0.00	6.89	40.94	0.00	18.15	15.11
Aralla 33	Bernesga Mb.	0.00	8.39	40.98	0.00	15.24	12.46
Aralla 34	Bernesga Mb.	0.00	6.60	37.69	0.00	19.15	12.80
Aralla 35	Bernesga Mb.	0.00	6.31	31.42	0.00	15.70	11.98
Aralla 36	Bernesga Mb.	0.00	5.27	0.00	0.00	17.78	11.71
Aralla 37	Bernesga Mb.	0.00	8.75	49.84	0.00	20.25	13.92
Aralla 38	Bernesga Mb.	0.00	0.00	0.00	0.00	0.00	11.29
Aralla 39	Bernesga Mb.	0.00	5.11	37.99	0.00	15.82	12.64
Aralla 40	Bernesga Mb.	0.00	7.23	47.24	0.00	18.20	14.08
Aralla 41	Bernesga Mb.	0.00	5.85	0.00	0.00	7.82	11.24
Aralla 42	Bernesga Mb.	0.00	0.00	0.00	0.00	11.56	11.75
Aralla 43	Bernesga Mb.	0.00	9.58	0.00	0.00	0.00	11.71
Aralla 44	Bernesga Mb.	0.00	7.36	0.00	0.00	14.29	9.51
Aralla 45	Bernesga Mb.	0.00	0.00	0.00	0.00	0.00	0.00
Aralla 46	Bernesga Mb.	0.00	0.00	0.00	0.00	0.00	9.52
Aralla 47	Bernesga Mb.	0.00	5.49	0.00	0.00	19.25	15.21
Aralla 48	Bernesga Mb.	0.00	0.00	0.00	0.00	15.35	12.45
Aralla 49	Bernesga Mb.	0.00	9.62	0.00	0.00	0.00	0.00
Aralla 50	Bernesga Mb.	0.00	7.68	0.00	0.00	17.33	12.59

Sample	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
Aralla 51	Bernesga Mb.	0.00	0.00	640.88	0.00	218.55	144.94	0.00	48.48	33.37	0.00	13.15	0.00	160.33
Aralla 52	Bernesga Mb.	0.00	0.00	719.55	0.00	240.63	130.03	0.00	72.51	40.10	0.00	24.44	2.80	148.74
Aralla 53	Bernesga Mb.	0.00	357.95	840.04	0.00	236.69	106.66	0.00	91.15	60.10	39.21	37.00	2.61	128.59
Aralla 54	Bernesga Mb.	0.00	0.00	629.52	0.00	281.49	136.95	0.00	60.17	26.94	0.00	10.92	0.00	164.67
Aralla 55	Bernesga Mb.	0.00	0.00	632.88	18.05	279.43	139.61	0.00	57.58	31.94	0.00	12.60	0.00	156.80
Aralla 56	Bernesga Mb.	0.00	0.00	619.22	22.55	240.46	124.25	0.00	45.80	36.91	0.00	14.20	0.00	148.97
Aralla 57	Bernesga Mb.	0.00	0.00	657.24	0.00	273.42	139.49	0.00	46.54	36.40	0.00	10.14	2.62	159.14
Aralla 58	Bernesga Mb.	0.00	0.00	651.00	25.90	262.39	126.13	0.00	57.78	34.68	0.00	16.23	0.00	151.14
Aralla 59	Bernesga Mb.	0.00	0.00	647.91	0.00	227.51	128.18	0.00	52.36	45.92	0.00	17.92	0.00	149.50
Aralla 60	Bernesga Mb.	0.00	0.00	733.33	0.00	241.88	116.91	0.00	79.92	58.21	38.15	29.81	2.40	142.05
Aralla 61	Bernesga Mb.	0.00	0.00	645.78	0.00	227.57	128.01	0.00	50.98	27.45	0.00	13.18	0.00	160.58
Aralla 62	Bernesga Mb.	0.00	0.00	627.41	0.00	210.81	127.46	0.00	70.88	45.53	0.00	16.45	0.00	151.76
Aralla 63	Bernesga Mb.	0.00	0.00	740.50	0.00	232.49	114.78	0.00	71.76	37.36	0.00	25.33	2.43	145.93
Aralla 64	Bernesga Mb.	0.00	0.00	621.53	0.00	192.86	140.15	0.00	65.09	36.58	0.00	21.02	0.00	161.10
Aralla 65	Bernesga Mb.	0.00	0.00	633.97	0.00	195.95	135.52	0.00	49.19	39.42	0.00	16.13	0.00	160.63
Aralla 66	Bernesga Mb.	0.00	0.00	710.66	0.00	186.60	111.20	0.00	70.93	28.15	0.00	23.42	0.00	146.74
Aralla 67	Bernesga Mb.	0.00	0.00	776.05	0.00	197.76	112.78	0.00	73.96	47.83	47.38	32.97	0.00	137.87
Aralla 68	Bernesga Mb.	0.00	280.33	794.90	0.00	172.03	115.50	0.00	70.31	57.85	57.90	35.77	0.00	125.68
Aralla 69	Bernesga Mb.	0.00	0.00	627.93	17.34	185.79	136.31	0.00	47.51	52.40	0.00	15.06	0.00	152.25
Aralla 70	Bernesga Mb.	0.00	0.00	692.97	20.87	193.06	110.90	0.00	69.63	52.50	0.00	23.49	2.38	141.14
Aralla 71	Bernesga Mb.	0.00	0.00	658.70	0.00	232.57	140.02	0.00	60.09	39.34	0.00	17.56	2.57	154.30
Aralla 72	Bernesga Mb.	0.00	0.00	637.91	0.00	224.89	138.77	0.00	59.84	40.38	0.00	20.35	2.74	159.58
Aralla 73	Bernesga Mb.	0.00	0.00	631.75	0.00	199.32	133.55	0.00	43.81	42.29	0.00	13.95	0.00	164.61
Aralla 74	Bernesga Mb.	0.00	0.00	667.69	25.00	189.34	132.44	0.00	60.99	51.22	36.61	22.18	0.00	153.67
Aralla 75	Bernesga Mb.	0.00	0.00	580.02	0.00	202.18	135.43	0.00	44.07	26.13	0.00	12.35	0.00	162.50

Sample	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
Aralla 51	Bernesga Mb.	192.38	137.92	21.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	275.15	20.73
Aralla 52	Bernesga Mb.	191.22	139.09	19.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	316.18	0.00
Aralla 53	Bernesga Mb.	186.99	136.78	17.64	4.73	0.00	47.10	0.00	0.00	29.69	48.86	40.56	591.14	0.00
Aralla 54	Bernesga Mb.	192.65	129.56	21.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	250.67	0.00
Aralla 55	Bernesga Mb.	190.74	146.00	21.24	0.00	0.00	0.00	0.00	21.69	0.00	0.00	0.00	238.44	20.71
Aralla 56	Bernesga Mb.	188.10	172.60	21.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	215.61	23.77
Aralla 57	Bernesga Mb.	189.61	131.83	20.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	414.48	0.00
Aralla 58	Bernesga Mb.	188.87	143.33	20.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.04	350.64	26.61
Aralla 59	Bernesga Mb.	188.81	144.04	19.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	286.51	22.97
Aralla 60	Bernesga Mb.	186.30	124.20	17.57	0.00	0.00	34.99	0.00	0.00	20.28	34.52	30.44	449.03	32.19
Aralla 61	Bernesga Mb.	188.73	135.64	20.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	283.06	0.00
Aralla 62	Bernesga Mb.	189.51	137.20	19.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.22	348.22	0.00
Aralla 63	Bernesga Mb.	187.10	121.07	18.27	0.00	0.00	0.00	0.00	0.00	23.14	36.72	28.92	477.84	31.55
Aralla 64	Bernesga Mb.	192.07	125.00	20.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.26	339.15	0.00
Aralla 65	Bernesga Mb.	193.21	122.76	20.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	273.80	0.00
Aralla 66	Bernesga Mb.	189.92	126.35	19.24	0.00	0.00	0.00	0.00	0.00	20.70	0.00	32.74	438.47	31.75
Aralla 67	Bernesga Mb.	186.10	114.10	17.71	0.00	0.00	47.62	0.00	0.00	30.82	55.82	49.26	586.44	42.34
Aralla 68	Bernesga Mb.	186.33	120.31	17.28	0.00	12.38	46.33	0.00	0.00	29.21	55.53	43.82	564.54	30.06
Aralla 69	Bernesga Mb.	188.40	147.79	19.27	0.00	0.00	0.00	0.00	21.51	0.00	0.00	0.00	286.34	0.00
Aralla 70	Bernesga Mb.	186.33	158.41	20.61	5.19	0.00	0.00	0.00	0.00	0.00	41.74	23.95	396.76	0.00
Aralla 71	Bernesga Mb.	187.71	147.88	20.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.46	320.89	22.93
Aralla 72	Bernesga Mb.	189.02	131.85	20.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	289.15	0.00
Aralla 73	Bernesga Mb.	186.86	128.34	20.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	262.96	0.00
Aralla 74	Bernesga Mb.	187.75	124.23	19.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.68	348.24	0.00
Aralla 75	Bernesga Mb.	191.75	153.13	21.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	222.29	0.00

Sample	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
Aralla 51	Bernesga Mb.	0.00	0.00	0.00	0.00	17.58	12.06
Aralla 52	Bernesga Mb.	0.00	7.05	0.00	0.00	13.27	11.30
Aralla 53	Bernesga Mb.	0.00	0.00	0.00	0.00	0.00	9.19
Aralla 54	Bernesga Mb.	0.00	5.54	0.00	0.00	17.69	14.56
Aralla 55	Bernesga Mb.	0.00	6.22	62.11	0.00	18.33	14.19
Aralla 56	Bernesga Mb.	0.00	0.00	0.00	0.00	17.14	14.65
Aralla 57	Bernesga Mb.	0.00	6.38	43.33	0.00	20.10	14.73
Aralla 58	Bernesga Mb.	0.00	7.82	0.00	0.00	15.64	15.23
Aralla 59	Bernesga Mb.	0.00	0.00	0.00	0.00	15.53	14.98
Aralla 60	Bernesga Mb.	0.00	0.00	0.00	0.00	6.50	11.85
Aralla 61	Bernesga Mb.	0.00	4.97	0.00	0.00	16.25	15.82
Aralla 62	Bernesga Mb.	0.00	0.00	0.00	0.00	15.84	9.77
Aralla 63	Bernesga Mb.	0.00	6.87	0.00	0.00	9.29	8.67
Aralla 64	Bernesga Mb.	0.00	4.91	0.00	0.00	17.66	0.00
Aralla 65	Bernesga Mb.	0.00	4.82	0.00	0.00	17.84	6.84
Aralla 66	Bernesga Mb.	0.00	0.00	0.00	0.00	10.94	0.00
Aralla 67	Bernesga Mb.	0.00	0.00	0.00	0.00	0.00	8.33
Aralla 68	Bernesga Mb.	0.00	0.00	0.00	0.00	0.00	0.00
Aralla 69	Bernesga Mb.	0.00	0.00	0.00	0.00	16.18	8.00
Aralla 70	Bernesga Mb.	0.00	5.92	0.00	0.00	10.21	7.65
Aralla 71	Bernesga Mb.	0.00	0.00	0.00	0.00	16.09	8.76
Aralla 72	Bernesga Mb.	0.00	5.83	0.00	0.00	15.81	10.46
Aralla 73	Bernesga Mb.	0.00	5.61	0.00	0.00	15.72	8.45
Aralla 74	Bernesga Mb.	0.00	5.40	0.00	0.00	15.64	7.40
Aralla 75	Bernesga Mb.	0.00	7.02	0.00	0.00	18.57	9.78

Sample	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
Aralla 76	Bernesga Mb.	0.00	0.00	634.16	0.00	219.14	140.69	0.00	59.39	29.48	0.00	14.34	2.24	158.52
Aralla 77	Bernesga Mb.	0.00	0.00	594.01	0.00	216.32	135.96	0.00	52.30	25.00	0.00	10.75	0.00	169.51
Aralla 78	Bernesga Mb.	0.00	339.47	673.04	0.00	212.35	122.67	0.00	67.32	35.38	0.00	18.73	2.94	155.43
Aralla 79	Bernesga Mb.	0.00	0.00	484.32	0.00	200.70	133.20	0.00	62.38	40.14	0.00	12.40	0.00	163.75
Aralla 80	Bernesga Mb.	0.00	0.00	639.25	0.00	205.51	130.83	0.00	63.12	42.69	0.00	18.13	2.28	150.60
Aralla 81	Bernesga Mb.	0.00	0.00	608.97	0.00	213.86	137.64	0.00	67.73	31.28	0.00	12.26	2.13	158.24
Aralla 82	Bernesga Mb.	0.00	0.00	690.04	26.85	223.95	106.94	0.00	69.11	38.65	41.47	21.30	2.70	142.20
Aralla 83	Bernesga Mb.	0.00	0.00	749.65	0.00	204.33	109.00	0.00	78.23	38.29	52.17	27.77	0.00	135.67
Aralla 84	Bernesga Mb.	0.00	0.00	615.60	0.00	220.74	131.06	0.00	67.34	30.69	0.00	16.29	2.10	162.41
Aralla 85	Bernesga Mb.	0.00	0.00	593.00	23.32	213.15	134.24	0.00	44.32	17.49	0.00	10.17	0.00	177.11
Aralla 86	Bernesga Mb.	0.00	0.00	823.26	0.00	223.03	108.52	0.00	99.91	55.66	79.97	41.61	2.99	134.51
Aralla 87	Bernesga Mb.	0.00	0.00	646.94	18.66	202.79	131.50	0.00	75.08	31.18	37.88	13.89	2.48	157.36
Aralla 88	Bernesga Mb.	0.00	0.00	574.18	16.92	194.25	129.52	0.00	59.20	15.45	0.00	6.74	0.00	179.65
Aralla 89	Bernesga Mb.	0.00	0.00	690.66	0.00	214.39	110.94	0.00	80.85	27.89	50.47	19.97	3.06	160.83
Aralla 90	Bernesga Mb.	0.00	0.00	586.96	26.29	208.69	129.79	0.00	67.47	42.76	0.00	13.27	0.00	162.18
Aralla 91	Bernesga Mb.	0.00	1794.70	613.12	26.03	201.07	129.32	0.00	82.70	16.18	0.00	13.29	2.64	172.50
Aralla 92	Bernesga Mb.	0.00	0.00	649.00	19.23	199.52	127.60	0.00	51.12	40.33	0.00	12.90	2.02	165.60
Aralla 93	Bernesga Mb.	0.00	5240.44	629.94	0.00	180.72	132.56	0.00	119.24	36.40	100.07	15.28	0.00	160.83
Aralla 94	Bernesga Mb.	0.00	0.00	564.05	26.21	191.37	129.56	0.00	54.56	23.37	0.00	10.71	0.00	172.94
Aralla 95	Bernesga Mb.	0.00	2953.65	587.77	20.89	194.10	124.65	0.00	65.68	16.86	0.00	8.33	1.98	178.88
Aralla 96	Bernesga Mb.	0.00	2528.59	571.49	0.00	200.46	134.21	0.00	68.54	17.61	0.00	11.67	0.00	181.13
Aralla 97	Bernesga Mb.	0.00	2429.45	625.62	22.93	214.88	129.36	0.00	74.34	30.72	41.83	13.61	2.11	166.84
Aralla 98	Bernesga Mb.	0.00	5849.41	595.88	0.00	200.01	135.79	97.82	106.73	41.68	87.19	12.71	0.00	175.49
Aralla 99	Bernesga Mb.	0.00	4721.59	609.86	18.91	224.02	129.05	0.00	80.23	23.76	49.43	12.41	0.00	161.34
Aralla 100	Bernesga Mb.	0.00	5574.59	598.70	19.28	211.17	131.86	0.00	135.49	32.69	169.02	12.06	0.00	174.58

Sample	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
Aralla 76	Bernesga Mb.	186.84	141.87	20.00	4.37	0.00	0.00	0.00	0.00	0.00	0.00	12.63	348.48	0.00
Aralla 77	Bernesga Mb.	185.70	138.36	20.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	294.63	26.94
Aralla 78	Bernesga Mb.	186.28	142.89	20.20	4.56	0.00	0.00	0.00	0.00	0.00	0.00	17.75	361.18	27.22
Aralla 79	Bernesga Mb.	187.14	138.04	19.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.31	1942.14	0.00
Aralla 80	Bernesga Mb.	189.42	148.85	21.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.55	346.84	0.00
Aralla 81	Bernesga Mb.	190.53	164.10	22.50	3.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	275.55	21.15
Aralla 82	Bernesga Mb.	186.66	143.04	19.64	0.00	0.00	0.00	0.00	0.00	22.46	35.09	21.90	370.91	0.00
Aralla 83	Bernesga Mb.	183.59	147.28	19.16	0.00	11.82	36.35	0.00	26.14	28.33	57.26	39.63	486.04	34.43
Aralla 84	Bernesga Mb.	188.60	158.12	21.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.61	355.10	0.00
Aralla 85	Bernesga Mb.	189.70	153.56	21.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	286.16	23.32
Aralla 86	Bernesga Mb.	183.29	132.64	18.99	0.00	0.00	68.23	0.00	0.00	31.80	61.18	58.50	658.43	0.00
Aralla 87	Bernesga Mb.	187.26	163.29	22.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.74	333.17	0.00
Aralla 88	Bernesga Mb.	186.90	147.64	22.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	267.26	0.00
Aralla 89	Bernesga Mb.	185.57	141.32	21.14	0.00	0.00	46.69	0.00	0.00	26.62	52.17	29.30	498.35	0.00
Aralla 90	Bernesga Mb.	189.93	163.75	21.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.11	355.26	21.63
Aralla 91	Bernesga Mb.	187.62	144.19	21.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.74	539.66	0.00
Aralla 92	Bernesga Mb.	186.15	156.85	21.76	4.74	0.00	0.00	0.00	0.00	0.00	0.00	13.00	335.70	21.24
Aralla 93	Bernesga Mb.	183.43	172.72	23.79	0.00	0.00	0.00	0.00	0.00	19.75	41.23	16.37	430.15	0.00
Aralla 94	Bernesga Mb.	187.41	166.60	22.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	243.98	20.98
Aralla 95	Bernesga Mb.	186.23	147.16	21.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	368.73	0.00
Aralla 96	Bernesga Mb.	185.17	145.85	21.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	374.91	0.00
Aralla 97	Bernesga Mb.	183.29	150.92	21.25	3.72	0.00	0.00	0.00	0.00	0.00	0.00	17.69	403.28	26.24
Aralla 98	Bernesga Mb.	183.61	146.64	22.86	0.00	0.00	0.00	0.00	22.10	0.00	0.00	12.82	334.91	0.00
Aralla 99	Bernesga Mb.	186.26	167.77	22.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	321.07	29.78
Aralla 100	Bernesga Mb.	182.28	150.83	20.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.15	378.86	25.64

Sample	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
Aralla 76	Bernesga Mb.	0.00	6.84	0.00	0.00	16.43	9.51
Aralla 77	Bernesga Mb.	0.00	6.52	33.45	0.00	19.39	10.96
Aralla 78	Bernesga Mb.	0.00	6.47	0.00	0.00	14.01	7.80
Aralla 79	Bernesga Mb.	0.00	5.14	0.00	0.00	18.62	9.30
Aralla 80	Bernesga Mb.	0.00	6.58	0.00	0.00	15.09	7.69
Aralla 81	Bernesga Mb.	0.00	0.00	51.10	0.00	18.45	8.13
Aralla 82	Bernesga Mb.	0.00	6.30	35.01	0.00	10.65	7.23
Aralla 83	Bernesga Mb.	0.00	0.00	0.00	0.00	8.06	7.70
Aralla 84	Bernesga Mb.	0.00	0.00	0.00	0.00	16.58	9.15
Aralla 85	Bernesga Mb.	0.00	6.23	34.26	0.00	19.27	11.70
Aralla 86	Bernesga Mb.	8.91	7.93	0.00	0.00	0.00	12.55
Aralla 87	Bernesga Mb.	0.00	6.26	0.00	0.00	16.87	12.99
Aralla 88	Bernesga Mb.	0.00	0.00	0.00	0.00	20.52	13.37
Aralla 89	Bernesga Mb.	0.00	8.14	0.00	0.00	12.11	11.10
Aralla 90	Bernesga Mb.	0.00	7.28	31.88	0.00	18.98	8.39
Aralla 91	Bernesga Mb.	0.00	6.60	45.97	0.00	17.94	7.96
Aralla 92	Bernesga Mb.	0.00	0.00	0.00	0.00	17.59	9.22
Aralla 93	Bernesga Mb.	0.00	6.91	24.77	0.00	13.94	9.60
Aralla 94	Bernesga Mb.	0.00	4.93	32.46	0.00	19.47	11.69
Aralla 95	Bernesga Mb.	0.00	5.94	42.28	0.00	19.20	9.43
Aralla 96	Bernesga Mb.	0.00	5.00	37.74	0.00	18.97	9.96
Aralla 97	Bernesga Mb.	0.00	0.00	32.17	0.00	16.89	9.60
Aralla 98	Bernesga Mb.	0.00	6.35	32.59	0.00	16.57	11.56
Aralla 99	Bernesga Mb.	0.00	5.29	34.67	0.00	18.58	7.33
Aralla 100	Bernesga Mb.	0.00	5.99	33.97	0.00	17.32	10.56

Sample	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
Aralla 101	Bernesga Mb.	0.00	6148.44	598.28	0.00	199.21	129.84	132.47	137.31	33.51	292.43	18.74	0.00	170.51
Aralla 102	Bernesga Mb.	0.00	5315.21	584.87	0.00	183.70	135.91	0.00	123.35	36.99	243.51	13.22	0.00	176.81
Aralla 103	Bernesga Mb.	0.00	5488.89	618.17	0.00	216.17	131.42	0.00	136.82	31.34	138.01	11.37	0.00	175.19
Aralla 104	Bernesga Mb.	0.00	2556.86	620.94	0.00	194.63	129.38	0.00	77.87	33.63	55.44	12.06	0.00	175.52
Aralla 105	Bernesga Mb.	0.00	490.20	621.17	0.00	178.40	121.09	96.21	66.41	32.57	77.70	15.90	2.08	161.38
Aralla 106	Bernesga Mb.	0.00	4009.15	651.89	34.29	184.10	111.82	0.00	125.26	29.38	79.75	26.57	2.56	156.09
Aralla 107	Bernesga Mb.	0.00	0.00	632.61	23.95	202.70	122.92	0.00	72.61	28.29	43.50	14.36	2.08	181.85
Aralla 108	Bernesga Mb.	0.00	0.00	635.38	0.00	200.10	130.64	0.00	68.59	23.53	48.80	13.47	0.00	180.43
Aralla 109	Bernesga Mb.	0.00	0.00	631.32	24.36	177.75	113.93	0.00	71.57	34.40	39.17	15.77	0.00	148.66
Aralla 110	Bernesga Mb.	0.00	3994.07	597.90	0.00	191.20	128.74	0.00	84.29	32.06	60.00	9.49	2.00	190.94
Aralla 111	Bernesga Mb.	0.00	2978.44	643.71	0.00	197.63	126.45	0.00	90.19	35.43	62.66	13.31	0.00	182.09
Aralla 112	Bernesga Mb.	0.00	2568.04	570.67	17.02	185.29	123.18	0.00	74.20	23.90	0.00	7.06	2.03	188.12
Aralla 113	Bernesga Mb.	0.00	0.00	587.82	0.00	196.36	130.72	0.00	60.69	22.04	0.00	9.81	2.72	179.96
Aralla 114	Bernesga Mb.	0.00	0.00	582.63	0.00	220.86	130.00	0.00	60.91	22.05	0.00	13.39	2.52	162.98
Aralla 115	Bernesga Mb.	0.00	0.00	641.17	24.42	208.34	114.20	0.00	56.87	34.67	0.00	18.34	0.00	155.33
Aralla 116	Bernesga Mb.	0.00	0.00	600.53	0.00	215.37	126.29	0.00	58.36	22.56	0.00	15.29	0.00	168.27
Aralla 117	Bernesga Mb.	0.00	0.00	791.81	27.12	187.52	114.67	0.00	90.92	41.43	69.18	32.43	3.67	135.12
Aralla 118	Bernesga Mb.	0.00	289.99	781.89	0.00	173.14	86.43	0.00	82.88	29.54	68.42	29.30	2.65	123.94
Aralla 119	Bernesga Mb.	0.00	0.00	666.00	0.00	176.81	108.97	0.00	78.86	29.63	43.78	19.81	0.00	157.90
Aralla 120	Bernesga Mb.	0.00	0.00	642.29	0.00	188.59	125.12	0.00	77.94	32.82	42.32	18.61	0.00	168.19
Aralla 121	Bernesga Mb.	0.00	297.25	514.22	0.00	184.15	133.91	0.00	66.57	24.11	38.46	15.62	0.00	165.12
Aralla 122	Bernesga Mb.	0.00	0.00	686.27	0.00	187.19	122.51	0.00	65.03	32.45	43.70	20.57	0.00	146.20
Aralla 123	Bernesga Mb.	0.00	0.00	620.11	0.00	202.20	129.24	0.00	64.35	30.07	45.35	15.48	0.00	170.48
Aralla 124	Bernesga Mb.	0.00	0.00	680.86	0.00	196.00	115.07	0.00	83.25	30.24	60.26	19.78	3.37	159.28
Aralla 125	Bernesga Mb.	0.00	0.00	632.74	0.00	206.12	123.26	0.00	68.12	29.84	57.05	14.58	0.00	151.36

Sample	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
Aralla 101	Bernesga Mb.	181.39	137.61	24.19	3.96	0.00	0.00	0.00	0.00	23.68	42.76	26.05	446.43	31.62
Aralla 102	Bernesga Mb.	182.57	149.38	22.72	4.04	0.00	0.00	0.00	0.00	0.00	0.00	15.47	397.19	0.00
Aralla 103	Bernesga Mb.	182.59	146.38	21.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.97	345.69	0.00
Aralla 104	Bernesga Mb.	183.17	151.33	22.48	0.00	0.00	0.00	0.00	0.00	17.46	0.00	12.24	358.35	0.00
Aralla 105	Bernesga Mb.	181.35	162.57	22.28	0.00	0.00	0.00	0.00	0.00	18.24	34.41	16.68	367.95	34.22
Aralla 106	Bernesga Mb.	181.83	127.26	19.69	0.00	0.00	45.20	0.00	0.00	29.02	52.35	47.01	610.96	0.00
Aralla 107	Bernesga Mb.	184.07	151.55	22.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.94	391.97	0.00
Aralla 108	Bernesga Mb.	184.63	154.54	22.05	0.00	0.00	0.00	0.00	0.00	17.94	0.00	13.36	374.52	28.09
Aralla 109	Bernesga Mb.	179.58	198.24	21.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.30	328.97	0.00
Aralla 110	Bernesga Mb.	184.62	163.65	23.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.05	383.03	0.00
Aralla 111	Bernesga Mb.	182.81	161.41	22.40	0.00	0.00	0.00	0.00	0.00	0.00	30.01	20.12	421.74	24.04
Aralla 112	Bernesga Mb.	183.30	157.63	22.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.26	357.04	21.95
Aralla 113	Bernesga Mb.	183.58	163.46	22.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.94	334.06	25.22
Aralla 114	Bernesga Mb.	182.21	162.60	20.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.98	296.65	0.00
Aralla 115	Bernesga Mb.	180.96	174.23	21.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.06	362.72	0.00
Aralla 116	Bernesga Mb.	181.11	159.83	20.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.23	335.58	0.00
Aralla 117	Bernesga Mb.	178.58	140.48	17.79	0.00	0.00	44.46	0.00	0.00	25.37	46.82	44.31	545.25	0.00
Aralla 118	Bernesga Mb.	174.00	196.76	18.20	0.00	0.00	39.20	0.00	0.00	28.21	54.37	43.26	524.61	0.00
Aralla 119	Bernesga Mb.	177.85	155.74	19.44	0.00	0.00	0.00	0.00	0.00	19.00	33.19	24.83	460.13	24.87
Aralla 120	Bernesga Mb.	180.29	158.36	21.05	0.00	0.00	0.00	0.00	0.00	22.27	34.52	18.62	415.09	26.89
Aralla 121	Bernesga Mb.	181.73	157.63	20.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.54	1055.59	0.00
Aralla 122	Bernesga Mb.	178.48	210.31	20.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.55	320.24	24.14
Aralla 123	Bernesga Mb.	180.91	149.85	21.40	0.00	0.00	0.00	0.00	29.35	0.00	0.00	10.15	329.23	0.00
Aralla 124	Bernesga Mb.	178.75	140.46	19.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.83	403.66	35.67
Aralla 125	Bernesga Mb.	178.65	143.81	18.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.21	324.39	0.00

Sample	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
Aralla 101	Bernesga Mb.	0.00	0.00	0.00	0.00	14.45	9.64
Aralla 102	Bernesga Mb.	0.00	8.20	31.30	0.00	17.29	9.47
Aralla 103	Bernesga Mb.	0.00	9.35	29.98	0.00	19.26	10.19
Aralla 104	Bernesga Mb.	0.00	0.00	35.16	0.00	16.86	10.21
Aralla 105	Bernesga Mb.	0.00	0.00	0.00	0.00	16.70	7.39
Aralla 106	Bernesga Mb.	0.00	6.90	0.00	0.00	0.00	8.82
Aralla 107	Bernesga Mb.	0.00	0.00	0.00	0.00	16.90	9.09
Aralla 108	Bernesga Mb.	0.00	5.23	0.00	0.00	18.44	10.08
Aralla 109	Bernesga Mb.	0.00	5.55	0.00	0.00	13.47	11.26
Aralla 110	Bernesga Mb.	0.00	5.34	43.43	0.00	18.99	11.87
Aralla 111	Bernesga Mb.	0.00	0.00	39.60	0.00	16.28	12.41
Aralla 112	Bernesga Mb.	0.00	0.00	37.46	0.00	19.66	12.59
Aralla 113	Bernesga Mb.	0.00	4.95	32.36	0.00	18.63	11.66
Aralla 114	Bernesga Mb.	0.00	6.36	0.00	0.00	18.37	15.31
Aralla 115	Bernesga Mb.	0.00	9.72	0.00	0.00	15.63	10.76
Aralla 116	Bernesga Mb.	0.00	0.00	0.00	0.00	19.24	13.14
Aralla 117	Bernesga Mb.	0.00	0.00	0.00	0.00	0.00	9.01
Aralla 118	Bernesga Mb.	0.00	8.02	0.00	0.00	5.70	9.95
Aralla 119	Bernesga Mb.	0.00	0.00	0.00	0.00	11.97	13.19
Aralla 120	Bernesga Mb.	0.00	0.00	0.00	0.00	14.03	11.72
Aralla 121	Bernesga Mb.	0.00	6.26	0.00	0.00	17.28	12.26
Aralla 122	Bernesga Mb.	0.00	6.56	0.00	0.00	14.60	9.79
Aralla 123	Bernesga Mb.	0.00	5.70	0.00	0.00	16.60	11.94
Aralla 124	Bernesga Mb.	0.00	5.52	0.00	0.00	11.25	10.01
Aralla 125	Bernesga Mb.	0.00	5.96	0.00	0.00	15.90	10.57

Sample	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
Aralla 126	Bernesga Mb.	0.00	0.00	661.26	0.00	193.43	110.46	0.00	87.07	24.58	66.12	20.12	0.00	157.25
Aralla 127	Bernesga Mb.	0.00	0.00	656.49	21.75	173.20	112.10	0.00	91.02	31.58	78.85	16.45	2.58	149.39
Aralla 128	Bernesga Mb.	0.00	720.52	647.23	19.37	198.90	117.86	0.00	89.03	44.15	93.34	18.37	0.00	167.14
Aralla 129	Bernesga Mb.	0.00	3022.06	611.53	0.00	191.44	128.29	0.00	87.16	31.02	150.77	10.52	0.00	177.51
Aralla 130	Bernesga Mb.	0.00	1862.38	600.48	0.00	195.41	125.97	0.00	80.67	25.43	158.50	10.59	2.43	178.52
Aralla 131	Bernesga Mb.	0.00	481.09	624.93	17.61	147.34	93.35	0.00	58.20	27.08	46.42	11.47	0.00	129.75
Aralla 132	Bernesga Mb.	0.00	389.50	796.56	0.00	191.19	101.99	0.00	105.70	39.39	154.27	40.68	2.90	139.86
Aralla 133	Bernesga Mb.	0.00	1798.01	589.98	19.33	178.02	115.94	0.00	83.79	17.46	38.87	10.19	0.00	165.73
Aralla 134	Bernesga Mb.	0.00	530.31	702.46	0.00	192.36	108.60	0.00	101.07	28.43	76.88	18.80	2.32	127.47
Aralla 135	Bernesga Mb.	0.00	0.00	596.08	17.84	203.72	121.40	0.00	80.76	20.28	37.48	10.53	0.00	181.43
Aralla 136	Bernesga Mb.	0.00	320.71	756.54	0.00	185.29	104.66	0.00	102.41	36.70	75.78	28.48	0.00	160.16
Aralla 137	Bernesga Mb.	0.00	0.00	615.03	21.08	212.00	125.49	0.00	65.48	16.66	0.00	8.85	0.00	189.42
Aralla 138	Bernesga Mb.	0.00	0.00	599.81	0.00	183.07	120.56	0.00	49.76	34.16	38.22	8.54	2.56	173.19
Aralla 139	Bernesga Mb.	0.00	0.00	628.42	20.86	192.89	117.67	0.00	71.17	28.48	37.35	13.34	0.00	172.14
Aralla 140	Bernesga Mb.	0.00	0.00	703.27	33.76	190.98	97.61	0.00	89.48	33.29	63.12	26.10	0.00	155.75
Aralla 141	Bernesga Mb.	0.00	0.00	631.21	20.98	171.44	109.18	0.00	57.07	27.52	39.19	14.70	0.00	154.49
Aralla 142	Bernesga Mb.	0.00	0.00	654.29	0.00	177.96	105.09	0.00	57.31	33.07	45.53	17.38	0.00	153.97
Aralla 143	Bernesga Mb.	0.00	1341.15	657.95	29.97	170.57	121.02	0.00	67.21	24.13	37.85	13.10	0.00	155.12
Aralla 144	Bernesga Mb.	0.00	0.00	692.55	0.00	181.94	108.49	0.00	75.89	17.52	71.56	25.28	0.00	162.67
Aralla 145	Bernesga Mb.	0.00	0.00	696.30	0.00	188.23	99.84	0.00	81.46	27.82	56.49	20.33	0.00	140.53
Aralla 146	Bernesga Mb.	0.00	0.00	655.94	0.00	193.97	111.15	0.00	89.93	28.30	60.14	19.49	0.00	175.57
Aralla 147	Bernesga Mb.	0.00	446.84	603.71	25.95	217.47	134.16	0.00	64.50	22.02	0.00	9.94	0.00	170.95
Aralla 148	Bernesga Mb.	0.00	0.00	637.77	25.75	198.81	122.96	0.00	61.83	25.67	37.82	14.00	2.44	169.61
Aralla 149	Bernesga Mb.	0.00	0.00	626.82	20.37	148.37	91.68	0.00	56.74	23.60	0.00	13.25	0.00	123.89
Aralla 150	Bernesga Mb.	0.00	292.59	670.70	0.00	198.45	120.88	0.00	58.72	28.82	38.45	15.40	0.00	167.92

Sample	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
Aralla 126	Bernesga Mb.	179.09	178.28	20.35	0.00	0.00	0.00	0.00	0.00	21.05	0.00	21.50	405.49	0.00
Aralla 127	Bernesga Mb.	177.57	184.13	20.14	0.00	0.00	0.00	0.00	0.00	0.00	36.72	22.11	407.86	0.00
Aralla 128	Bernesga Mb.	178.32	157.40	20.10	0.00	0.00	0.00	0.00	26.50	19.78	0.00	19.92	459.64	26.02
Aralla 129	Bernesga Mb.	178.29	152.58	20.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.18	408.88	22.87
Aralla 130	Bernesga Mb.	178.32	162.77	20.67	0.00	0.00	0.00	9.74	0.00	0.00	29.33	12.16	418.86	0.00
Aralla 131	Bernesga Mb.	171.40	187.81	16.35	0.00	0.00	0.00	0.00	0.00	18.50	0.00	13.73	407.53	30.47
Aralla 132	Bernesga Mb.	174.66	125.45	16.44	0.00	0.00	67.07	0.00	29.66	34.61	86.45	60.13	715.05	30.52
Aralla 133	Bernesga Mb.	177.61	197.92	20.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	274.92	0.00
Aralla 134	Bernesga Mb.	174.88	148.24	18.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.83	547.73	31.80
Aralla 135	Bernesga Mb.	178.80	156.38	19.94	0.00	0.00	0.00	10.47	0.00	0.00	0.00	12.01	353.60	0.00
Aralla 136	Bernesga Mb.	176.19	134.23	18.30	0.00	0.00	40.99	0.00	0.00	33.89	62.99	48.98	637.44	0.00
Aralla 137	Bernesga Mb.	181.88	157.18	22.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	297.11	0.00
Aralla 138	Bernesga Mb.	179.06	171.60	21.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	270.17	23.56
Aralla 139	Bernesga Mb.	179.59	161.20	20.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.73	360.18	27.05
Aralla 140	Bernesga Mb.	176.55	165.69	19.33	0.00	0.00	0.00	0.00	0.00	23.68	43.44	35.29	540.85	28.11
Aralla 141	Bernesga Mb.	176.14	213.51	20.33	0.00	0.00	0.00	0.00	24.70	0.00	0.00	14.94	335.12	24.62
Aralla 142	Bernesga Mb.	176.67	247.69	20.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.68	360.96	26.57
Aralla 143	Bernesga Mb.	176.52	197.75	18.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.36	313.67	0.00
Aralla 144	Bernesga Mb.	179.29	155.53	18.68	0.00	0.00	0.00	0.00	0.00	25.96	43.91	29.80	514.06	30.79
Aralla 145	Bernesga Mb.	175.70	194.90	17.74	0.00	0.00	33.28	0.00	0.00	28.41	36.65	24.64	408.12	29.63
Aralla 146	Bernesga Mb.	177.95	127.24	18.73	0.00	0.00	0.00	0.00	27.36	24.08	50.16	25.04	489.77	0.00
Aralla 147	Bernesga Mb.	178.56	136.44	19.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	373.42	23.72
Aralla 148	Bernesga Mb.	177.25	149.96	20.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.40	366.57	0.00
Aralla 149	Bernesga Mb.	171.90	223.56	17.26	0.00	0.00	0.00	0.00	0.00	21.27	0.00	14.15	258.83	34.22
Aralla 150	Bernesga Mb.	177.69	151.81	21.12	0.00	0.00	0.00	0.00	0.00	0.00	37.02	24.22	475.29	0.00

Sample	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
Aralla 126	Bernesga Mb.	0.00	5.44	0.00	0.00	13.03	10.48
Aralla 127	Bernesga Mb.	0.00	0.00	0.00	0.00	10.39	13.07
Aralla 128	Bernesga Mb.	0.00	0.00	0.00	0.00	14.47	12.94
Aralla 129	Bernesga Mb.	0.00	5.39	0.00	0.00	15.44	9.32
Aralla 130	Bernesga Mb.	0.00	0.00	0.00	0.00	16.61	9.55
Aralla 131	Bernesga Mb.	0.00	5.99	0.00	0.00	10.59	7.00
Aralla 132	Bernesga Mb.	0.00	8.61	0.00	0.00	0.00	11.19
Aralla 133	Bernesga Mb.	0.00	0.00	0.00	0.00	14.35	11.14
Aralla 134	Bernesga Mb.	0.00	5.57	0.00	0.00	8.75	7.61
Aralla 135	Bernesga Mb.	0.00	5.20	0.00	0.00	17.05	9.73
Aralla 136	Bernesga Mb.	0.00	0.00	0.00	0.00	0.00	10.43
Aralla 137	Bernesga Mb.	0.00	0.00	0.00	0.00	18.63	10.09
Aralla 138	Bernesga Mb.	0.00	7.22	0.00	0.00	17.63	12.21
Aralla 139	Bernesga Mb.	0.00	0.00	0.00	0.00	15.43	11.51
Aralla 140	Bernesga Mb.	0.00	0.00	0.00	0.00	6.89	11.81
Aralla 141	Bernesga Mb.	0.00	6.69	0.00	0.00	14.54	10.90
Aralla 142	Bernesga Mb.	0.00	6.94	0.00	0.00	12.77	10.21
Aralla 143	Bernesga Mb.	0.00	6.13	0.00	0.00	14.00	10.01
Aralla 144	Bernesga Mb.	0.00	7.20	0.00	0.00	8.75	8.26
Aralla 145	Bernesga Mb.	0.00	0.00	0.00	0.00	10.60	9.13
Aralla 146	Bernesga Mb.	0.00	7.50	0.00	0.00	9.89	10.62
Aralla 147	Bernesga Mb.	0.00	5.34	41.78	0.00	15.99	11.55
Aralla 148	Bernesga Mb.	0.00	0.00	0.00	0.00	13.84	11.82
Aralla 149	Bernesga Mb.	0.00	0.00	0.00	0.00	11.28	11.28
Aralla 150	Bernesga Mb.	0.00	6.44	0.00	0.00	12.32	10.59

Sample	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
Aralla 151	Bernesga Mb.	0.00	820.59	852.03	0.00	139.85	90.34	0.00	112.45	34.30	201.39	45.50	3.61	120.03
Aralla 152	Bernesga Mb.	0.00	0.00	592.62	0.00	175.28	113.30	0.00	54.38	21.18	0.00	13.83	0.00	175.20
Aralla 153	Bernesga Mb.	0.00	650.64	690.74	0.00	151.83	95.69	0.00	79.80	21.60	39.30	29.17	0.00	147.80
Aralla 154	Bernesga Mb.	0.00	0.00	619.04	0.00	196.04	112.98	0.00	83.33	21.38	44.43	17.22	0.00	174.21
Aralla 155	Bernesga Mb.	0.00	0.00	617.68	0.00	187.15	108.67	0.00	73.91	36.54	36.27	15.45	0.00	158.70
Aralla 156	Bernesga Mb.	0.00	289.00	634.23	0.00	172.33	108.83	0.00	94.54	26.02	48.11	15.25	0.00	159.70
Aralla 157	Bernesga Mb.	0.00	0.00	681.32	0.00	200.51	100.03	0.00	96.46	23.00	58.84	20.42	0.00	159.35
Aralla 158	Bernesga Mb.	0.00	4396.33	583.30	0.00	191.55	114.60	0.00	100.60	27.33	73.84	15.66	0.00	183.18
Aralla 159	Bernesga Mb.	0.00	0.00	615.03	0.00	177.70	113.72	0.00	79.26	27.50	52.33	16.27	2.40	171.65
Aralla 160	Bernesga Mb.	0.00	0.00	683.57	0.00	138.32	70.24	0.00	68.59	36.57	148.67	21.64	2.84	115.86
Aralla 161	Bernesga Mb.	0.00	307.81	725.33	0.00	183.33	104.46	0.00	108.92	34.21	112.16	31.33	2.53	168.55
Aralla 162	Bernesga Mb.	0.00	2697.29	590.86	21.71	192.90	115.60	0.00	133.68	24.21	144.86	13.67	2.12	192.66
Aralla 163	Bernesga Mb.	0.00	3258.65	592.41	22.59	199.38	121.21	0.00	96.70	22.88	66.21	11.70	0.00	188.48
Aralla 164	Bernesga Mb.	0.00	4015.86	617.19	0.00	170.95	104.95	0.00	98.16	33.59	74.04	13.05	0.00	178.01
Aralla 165	Bernesga Mb.	0.00	546.58	585.09	20.50	184.74	120.68	0.00	84.05	32.18	45.86	10.35	0.00	188.71
Aralla 166	Bernesga Mb.	0.00	0.00	599.80	19.58	188.80	118.90	0.00	68.65	26.70	49.91	15.13	0.00	183.08
Aralla 167	Bernesga Mb.	0.00	0.00	636.82	0.00	181.95	113.24	0.00	89.19	25.16	58.58	16.14	2.18	184.02
Aralla 168	Bernesga Mb.	0.00	495.50	637.34	0.00	202.98	107.27	0.00	71.51	28.57	55.78	15.49	2.39	187.48
Aralla 169	Bernesga Mb.	0.00	3039.02	627.29	21.77	179.47	115.76	0.00	85.38	29.52	116.53	11.93	0.00	185.01
Aralla 170	Bernesga Mb.	0.00	334.86	510.98	0.00	91.38	47.13	0.00	35.37	18.31	0.00	8.37	0.00	76.33
Aralla 171	Bernesga Mb.	0.00	517.71	795.16	0.00	171.69	93.01	0.00	121.16	27.21	81.17	36.36	3.02	157.73
Aralla 172	Bernesga Mb.	0.00	0.00	623.16	0.00	185.57	120.35	0.00	67.48	21.74	37.85	15.02	0.00	184.25
Aralla 173	Bernesga Mb.	0.00	0.00	595.50	0.00	157.02	102.48	0.00	44.01	24.58	0.00	13.40	0.00	166.69
Aralla 174	Bernesga Mb.	0.00	425.84	816.94	0.00	121.09	73.91	0.00	86.04	39.14	82.63	34.95	2.85	100.75
Aralla 175	Bernesga Mb.	0.00	0.00	641.82	0.00	158.49	104.49	0.00	81.47	27.03	35.99	12.12	0.00	170.58

Sample	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
Aralla 151	Bernesga Mb.	171.77	142.94	18.13	0.00	0.00	86.12	12.70	0.00	35.19	83.92	69.86	746.48	0.00
Aralla 152	Bernesga Mb.	176.74	223.39	21.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	318.24	0.00
Aralla 153	Bernesga Mb.	176.96	201.28	18.79	0.00	0.00	0.00	0.00	0.00	25.13	48.31	24.98	472.90	0.00
Aralla 154	Bernesga Mb.	178.79	153.21	19.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.52	455.46	0.00
Aralla 155	Bernesga Mb.	177.29	182.75	21.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.09	327.70	0.00
Aralla 156	Bernesga Mb.	175.77	153.05	18.30	0.00	0.00	0.00	9.99	0.00	0.00	0.00	22.48	379.30	26.30
Aralla 157	Bernesga Mb.	176.08	147.46	20.27	0.00	0.00	0.00	0.00	26.61	24.42	37.85	34.09	524.64	0.00
Aralla 158	Bernesga Mb.	178.53	151.85	21.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.87	381.11	0.00
Aralla 159	Bernesga Mb.	179.17	165.21	21.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.12	434.53	33.40
Aralla 160	Bernesga Mb.	170.21	181.81	16.30	0.00	0.00	0.00	0.00	0.00	20.68	47.07	32.28	403.22	0.00
Aralla 161	Bernesga Mb.	175.85	127.37	18.45	0.00	0.00	55.80	0.00	0.00	31.96	65.55	52.05	689.41	28.95
Aralla 162	Bernesga Mb.	177.94	137.61	19.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.23	457.83	34.08
Aralla 163	Bernesga Mb.	178.34	152.53	20.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.73	400.68	28.60
Aralla 164	Bernesga Mb.	176.64	155.88	19.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.86	380.87	0.00
Aralla 165	Bernesga Mb.	178.81	146.40	19.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	552.42	0.00
Aralla 166	Bernesga Mb.	179.54	146.00	20.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.87	430.40	0.00
Aralla 167	Bernesga Mb.	178.28	149.88	21.34	0.00	0.00	0.00	0.00	0.00	20.57	32.79	27.99	498.12	0.00
Aralla 168	Bernesga Mb.	179.33	143.91	20.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.02	492.15	0.00
Aralla 169	Bernesga Mb.	177.90	151.49	19.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.69	418.75	0.00
Aralla 170	Bernesga Mb.	163.32	236.95	11.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	38.20	0.00
Aralla 171	Bernesga Mb.	175.01	124.35	17.32	0.00	0.00	59.13	0.00	0.00	34.25	76.32	60.63	739.76	31.61
Aralla 172	Bernesga Mb.	179.02	152.77	21.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.02	427.60	26.14
Aralla 173	Bernesga Mb.	176.03	204.61	19.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.06	305.82	0.00
Aralla 174	Bernesga Mb.	168.94	177.23	14.97	0.00	0.00	54.78	0.00	0.00	32.11	62.32	49.01	524.27	35.74
Aralla 175	Bernesga Mb.	176.96	193.12	19.42	0.00	0.00	0.00	0.00	0.00	18.48	0.00	26.62	478.11	0.00

Sample	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
Aralla 151	Bernesga Mb.	0.00	0.00	0.00	0.00	0.00	0.00
Aralla 152	Bernesga Mb.	0.00	0.00	0.00	0.00	16.37	9.63
Aralla 153	Bernesga Mb.	0.00	7.24	0.00	0.00	10.91	9.31
Aralla 154	Bernesga Mb.	0.00	6.28	0.00	0.00	13.60	13.65
Aralla 155	Bernesga Mb.	0.00	6.55	0.00	0.00	13.63	10.67
Aralla 156	Bernesga Mb.	0.00	7.40	0.00	0.00	10.15	12.49
Aralla 157	Bernesga Mb.	0.00	6.93	0.00	0.00	9.53	13.68
Aralla 158	Bernesga Mb.	0.00	8.51	0.00	0.00	15.12	14.97
Aralla 159	Bernesga Mb.	0.00	7.23	0.00	0.00	14.12	11.07
Aralla 160	Bernesga Mb.	0.00	0.00	0.00	0.00	5.53	8.27
Aralla 161	Bernesga Mb.	0.00	0.00	0.00	0.00	0.00	12.64
Aralla 162	Bernesga Mb.	0.00	0.00	0.00	0.00	13.33	14.52
Aralla 163	Bernesga Mb.	0.00	5.74	38.34	0.00	14.57	15.50
Aralla 164	Bernesga Mb.	0.00	6.82	0.00	0.00	13.79	10.75
Aralla 165	Bernesga Mb.	0.00	5.29	30.78	0.00	18.19	10.23
Aralla 166	Bernesga Mb.	0.00	5.98	0.00	0.00	14.06	10.53
Aralla 167	Bernesga Mb.	0.00	7.07	0.00	0.00	12.67	12.23
Aralla 168	Bernesga Mb.	0.00	5.64	0.00	0.00	13.06	10.91
Aralla 169	Bernesga Mb.	0.00	0.00	0.00	0.00	13.60	13.52
Aralla 170	Bernesga Mb.	0.00	5.35	0.00	0.00	8.70	5.11
Aralla 171	Bernesga Mb.	0.00	0.00	0.00	0.00	0.00	12.22
Aralla 172	Bernesga Mb.	0.00	0.00	0.00	0.00	13.32	13.54
Aralla 173	Bernesga Mb.	0.00	5.73	0.00	0.00	15.58	10.32
Aralla 174	Bernesga Mb.	0.00	7.81	0.00	0.00	0.00	9.50
Aralla 175	Bernesga Mb.	0.00	6.68	46.93	0.00	13.92	11.54

Sample	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
Aralla 176	Bernesga Mb.	0.00	0.00	649.75	0.00	170.39	114.19	0.00	52.03	23.38	0.00	14.75	0.00	163.26
Aralla 177	Bernesga Mb.	0.00	430.67	815.44	0.00	130.42	72.35	0.00	78.30	23.82	45.31	34.42	0.00	110.53
Aralla 178	Bernesga Mb.	0.00	546.64	947.96	0.00	131.14	55.78	0.00	113.67	85.03	75.94	51.96	0.00	95.67
Aralla 179	Bernesga Mb.	0.00	0.00	649.52	22.21	147.91	95.67	0.00	57.58	23.94	0.00	14.42	0.00	150.82
Aralla 180	Bernesga Mb.	0.00	0.00	624.10	0.00	151.21	104.27	0.00	55.41	35.02	0.00	13.87	0.00	161.54
Aralla 181	Bernesga Mb.	0.00	456.00	814.52	0.00	175.71	94.60	0.00	89.03	27.41	41.26	33.25	2.72	144.61
Aralla 182	Bernesga Mb.	0.00	0.00	664.54	0.00	157.62	103.57	0.00	57.79	27.30	0.00	17.73	0.00	155.73
Aralla 183	Bernesga Mb.	0.00	0.00	668.90	25.47	137.74	86.84	0.00	55.44	21.81	0.00	20.22	2.43	138.40
Aralla 184	Bernesga Mb.	0.00	0.00	642.21	0.00	170.67	107.99	0.00	77.68	24.10	0.00	16.43	0.00	170.14
Aralla 185	Villasimpliz Mb.	0.00	0.00	545.69	0.00	62.21	17.14	0.00	53.35	21.65	0.00	11.84	0.00	41.51
Aralla 186	Villasimpliz Mb.	0.00	0.00	621.43	25.08	100.48	50.31	0.00	59.26	26.30	0.00	16.92	0.00	88.20
Aralla 187	Villasimpliz Mb.	0.00	0.00	596.56	0.00	139.67	77.04	0.00	62.63	35.67	36.41	47.42	0.00	137.56
Aralla 188	Villasimpliz Mb.	0.00	0.00	534.79	0.00	50.44	0.00	0.00	62.71	18.21	62.95	11.82	0.00	36.41
Aralla 189	Villasimpliz Mb.	0.00	0.00	744.45	0.00	62.33	0.00	0.00	105.11	23.43	82.55	29.78	0.00	29.22
Aralla 190	Villasimpliz Mb.	0.00	0.00	555.20	0.00	81.15	42.68	0.00	47.96	18.69	0.00	10.54	2.11	70.45
Aralla 191	Villasimpliz Mb.	0.00	0.00	425.22	0.00	46.60	0.00	0.00	51.97	12.05	0.00	8.43	0.00	30.45
Aralla 192	Villasimpliz Mb.	0.00	0.00	646.51	0.00	46.86	0.00	0.00	72.80	23.43	62.47	21.40	2.87	43.25
Aralla 193	Villasimpliz Mb.	0.00	0.00	586.82	0.00	154.73	83.94	0.00	73.95	24.94	0.00	13.98	0.00	141.86
Aralla 194	Villasimpliz Mb.	0.00	0.00	590.90	0.00	175.40	116.93	0.00	68.44	21.43	0.00	13.04	2.35	171.35
Aralla 195	Villasimpliz Mb.	0.00	0.00	691.81	0.00	215.49	99.81	0.00	110.05	27.93	53.05	34.81	0.00	167.25
Aralla 196	Villasimpliz Mb.	0.00	0.00	716.07	0.00	157.99	73.01	0.00	91.59	21.09	36.70	24.14	0.00	151.15
Aralla 197	Villasimpliz Mb.	0.00	0.00	505.87	0.00	89.04	40.18	0.00	57.51	15.78	0.00	11.31	0.00	69.56
Aralla 198	Villasimpliz Mb.	0.00	0.00	518.97	0.00	78.05	35.38	0.00	36.60	15.64	0.00	10.06	0.00	70.08
Aralla 199	Villasimpliz Mb.	0.00	0.00	661.57	0.00	176.64	95.44	0.00	84.12	20.01	57.73	23.01	0.00	189.91
Aralla 200	Villasimpliz Mb.	0.00	0.00	543.32	15.80	50.83	0.00	0.00	55.35	14.37	0.00	12.34	0.00	39.17

Sample	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
Aralla 176	Bernesga Mb.	176.87	210.82	20.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.05	364.20	0.00
Aralla 177	Bernesga Mb.	169.06	170.75	14.75	0.00	0.00	63.15	0.00	33.09	33.18	58.32	52.90	567.92	0.00
Aralla 178	Bernesga Mb.	166.95	165.56	14.03	0.00	0.00	73.44	12.88	0.00	33.57	85.04	64.74	696.80	0.00
Aralla 179	Bernesga Mb.	173.48	258.65	19.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.59	385.54	23.32
Aralla 180	Bernesga Mb.	175.94	215.52	18.84	0.00	0.00	0.00	0.00	0.00	19.26	32.87	14.79	421.01	0.00
Aralla 181	Bernesga Mb.	173.35	175.23	18.11	0.00	0.00	49.78	0.00	29.82	27.31	58.81	41.75	622.38	0.00
Aralla 182	Bernesga Mb.	175.80	216.94	21.01	0.00	0.00	0.00	0.00	0.00	25.40	37.24	26.64	482.33	33.11
Aralla 183	Bernesga Mb.	172.86	210.97	17.86	0.00	0.00	0.00	0.00	24.55	3.38	44.51	29.05	434.97	0.00
Aralla 184	Bernesga Mb.	175.96	197.57	19.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.18	465.54	0.00
Aralla 185	Villasimpliz Mb.	158.63	263.44	8.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.26	61.79	23.52
Aralla 186	Villasimpliz Mb.	170.69	217.69	13.82	0.00	0.00	0.00	0.00	0.00	22.42	32.16	29.51	294.39	32.76
Aralla 187	Villasimpliz Mb.	175.34	176.09	16.75	0.00	0.00	0.00	0.00	24.10	27.09	43.62	24.73	435.64	38.17
Aralla 188	Villasimpliz Mb.	158.97	196.74	5.40	0.00	0.00	0.00	0.00	0.00	18.63	0.00	13.77	72.93	26.48
Aralla 189	Villasimpliz Mb.	159.77	235.81	10.57	0.00	0.00	54.20	0.00	0.00	39.93	60.74	48.57	343.75	28.62
Aralla 190	Villasimpliz Mb.	172.98	262.61	9.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.63	92.15	0.00
Aralla 191	Villasimpliz Mb.	159.11	233.46	7.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.13	21.86	24.69
Aralla 192	Villasimpliz Mb.	163.61	245.26	8.95	0.00	0.00	37.76	0.00	0.00	26.76	55.46	37.81	239.42	28.63
Aralla 193	Villasimpliz Mb.	177.61	207.57	15.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.52	356.37	28.29
Aralla 194	Villasimpliz Mb.	185.38	208.25	20.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.37	460.52	24.55
Aralla 195	Villasimpliz Mb.	181.00	143.88	18.85	0.00	0.00	62.53	0.00	32.08	34.13	58.46	54.87	816.02	36.30
Aralla 196	Villasimpliz Mb.	177.67	220.07	19.65	0.00	0.00	0.00	0.00	0.00	30.41	64.25	44.85	593.67	29.93
Aralla 197	Villasimpliz Mb.	167.95	243.48	11.54	0.00	0.00	0.00	0.00	0.00	18.62	0.00	12.34	177.27	0.00
Aralla 198	Villasimpliz Mb.	168.71	267.25	13.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.44	145.49	28.00
Aralla 199	Villasimpliz Mb.	182.42	195.45	20.34	0.00	0.00	40.07	0.00	0.00	19.81	55.08	39.92	689.29	28.84
Aralla 200	Villasimpliz Mb.	159.48	136.81	2.98	0.00	0.00	0.00	0.00	0.00	0.00	31.85	20.19	121.37	26.90

Sample	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
Aralla 176	Bernesga Mb.	0.00	0.00	0.00	0.00	14.35	15.00
Aralla 177	Bernesga Mb.	0.00	7.25	0.00	0.00	0.00	0.00
Aralla 178	Bernesga Mb.	0.00	0.00	0.00	0.00	0.00	0.00
Aralla 179	Bernesga Mb.	0.00	6.24	0.00	0.00	12.13	8.32
Aralla 180	Bernesga Mb.	0.00	0.00	0.00	0.00	14.39	12.72
Aralla 181	Bernesga Mb.	0.00	7.00	0.00	0.00	0.00	10.46
Aralla 182	Bernesga Mb.	0.00	0.00	0.00	0.00	11.96	11.58
Aralla 183	Bernesga Mb.	0.00	7.06	0.00	0.00	8.85	8.11
Aralla 184	Bernesga Mb.	0.00	0.00	0.00	0.00	11.91	10.89
Aralla 185	Villasimpliz Mb.	0.00	7.25	0.00	0.00	3.55	0.00
Aralla 186	Villasimpliz Mb.	0.00	0.00	0.00	0.00	5.24	7.84
Aralla 187	Villasimpliz Mb.	0.00	0.00	35.74	0.00	9.16	10.39
Aralla 188	Villasimpliz Mb.	0.00	6.86	0.00	0.00	0.00	0.00
Aralla 189	Villasimpliz Mb.	0.00	0.00	0.00	0.00	0.00	0.00
Aralla 190	Villasimpliz Mb.	0.00	0.00	0.00	0.00	6.88	0.00
Aralla 191	Villasimpliz Mb.	0.00	0.00	0.00	0.00	0.00	0.00
Aralla 192	Villasimpliz Mb.	0.00	6.88	0.00	0.00	0.00	6.18
Aralla 193	Villasimpliz Mb.	0.00	0.00	0.00	0.00	10.54	9.64
Aralla 194	Villasimpliz Mb.	0.00	8.46	0.00	0.00	13.59	14.47
Aralla 195	Villasimpliz Mb.	0.00	6.86	0.00	0.00	0.00	10.66
Aralla 196	Villasimpliz Mb.	0.00	6.79	0.00	0.00	0.00	11.97
Aralla 197	Villasimpliz Mb.	0.00	0.00	0.00	0.00	5.48	6.74
Aralla 198	Villasimpliz Mb.	0.00	0.00	0.00	0.00	6.03	6.97
Aralla 199	Villasimpliz Mb.	0.00	6.76	0.00	0.00	9.18	12.58
Aralla 200	Villasimpliz Mb.	0.00	0.00	0.00	0.00	0.00	0.00

Sample	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
Aralla 201	Villasimpliz Mb.	0.00	0.00	516.25	0.00	43.68	0.00	0.00	65.68	14.54	38.08	12.87	0.00	41.45
Aralla 202	Villasimpliz Mb.	0.00	0.00	504.20	0.00	67.38	27.44	0.00	59.95	15.40	0.00	8.22	0.00	58.25
Aralla 203	Villasimpliz Mb.	0.00	0.00	616.01	0.00	166.93	107.24	0.00	62.24	24.30	42.51	18.10	0.00	195.56
Aralla 204	Villasimpliz Mb.	0.00	0.00	547.05	0.00	76.32	38.32	0.00	40.13	14.40	0.00	12.77	0.00	62.91
Aralla 205	Villasimpliz Mb.	0.00	0.00	528.34	0.00	74.55	34.05	0.00	47.66	15.60	0.00	9.65	2.02	66.71
Aralla 206	Villasimpliz Mb.	0.00	0.00	437.91	0.00	60.31	20.14	0.00	54.27	12.65	0.00	7.67	0.00	59.69
Aralla 207	Villasimpliz Mb.	0.00	0.00	564.33	0.00	104.96	55.84	0.00	56.99	15.16	0.00	10.08	2.68	83.66
Aralla 208	Villasimpliz Mb.	0.00	0.00	393.51	0.00	50.12	22.65	0.00	29.03	0.00	0.00	5.80	0.00	47.56
Aralla 209	Villasimpliz Mb.	0.00	0.00	455.16	0.00	67.38	46.76	0.00	41.85	12.88	0.00	5.97	0.00	85.75
Aralla 210	Villasimpliz Mb.	0.00	0.00	450.86	0.00	80.19	41.98	0.00	44.95	12.65	0.00	5.52	0.00	57.74
Aralla 211	Villasimpliz Mb.	0.00	0.00	576.85	0.00	81.12	27.00	0.00	60.76	16.06	0.00	13.18	2.19	64.08
Aralla 212	Villasimpliz Mb.	0.00	0.00	415.69	0.00	60.16	30.55	0.00	37.20	10.44	0.00	7.19	0.00	44.38
Aralla 213	Villasimpliz Mb.	0.00	0.00	458.71	0.00	84.88	50.87	0.00	30.80	0.00	0.00	6.93	0.00	86.49
Aralla 214	Villasimpliz Mb.	0.00	0.00	507.23	14.75	91.21	41.41	0.00	40.59	14.84	0.00	7.04	0.00	89.30
Aralla 215	Villasimpliz Mb.	0.00	0.00	625.61	0.00	182.50	107.66	0.00	71.19	21.29	39.53	22.78	0.00	193.00
Aralla 216	Villasimpliz Mb.	0.00	0.00	517.02	16.45	53.88	15.20	0.00	37.30	14.10	0.00	6.03	0.00	57.86
Aralla 217	Villasimpliz Mb.	0.00	0.00	570.66	0.00	92.42	50.44	0.00	53.43	19.26	0.00	12.42	0.00	90.43
Aralla 218	Villasimpliz Mb.	0.00	0.00	367.47	0.00	34.23	0.00	0.00	39.34	0.00	0.00	0.00	0.00	35.17
Aralla 219	Villasimpliz Mb.	0.00	0.00	513.16	0.00	71.30	45.96	0.00	50.41	12.92	0.00	6.39	0.00	87.33
Aralla 220	Villasimpliz Mb.	0.00	0.00	541.67	0.00	120.97	62.18	0.00	42.03	14.60	0.00	10.82	0.00	126.44
Aralla 221	Villasimpliz Mb.	0.00	0.00	412.05	0.00	50.11	0.00	0.00	30.57	18.35	0.00	5.14	0.00	48.27
Aralla 222	Villasimpliz Mb.	0.00	0.00	500.07	0.00	82.31	40.19	0.00	43.21	15.09	0.00	7.85	0.00	85.82
Aralla 223	Villasimpliz Mb.	0.00	0.00	497.18	0.00	80.34	49.52	0.00	39.09	16.32	0.00	6.74	0.00	92.17
Aralla 224	Villasimpliz Mb.	0.00	0.00	374.45	0.00	49.26	17.06	0.00	46.72	7.78	0.00	4.97	0.00	35.18
Aralla 225	Villasimpliz Mb.	0.00	0.00	502.23	0.00	56.77	26.31	0.00	40.95	18.03	0.00	8.83	0.00	56.73

Sample	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
Aralla 201	Villasimpliz Mb.	163.12	238.93	7.79	0.00	11.06	0.00	10.96	0.00	21.69	36.11	23.52	162.27	0.00
Aralla 202	Villasimpliz Mb.	163.94	315.49	10.60	0.00	0.00	0.00	0.00	23.78	22.86	0.00	16.28	148.79	0.00
Aralla 203	Villasimpliz Mb.	183.55	223.90	23.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.80	536.57	0.00
Aralla 204	Villasimpliz Mb.	163.35	184.68	6.06	0.00	0.00	0.00	0.00	0.00	18.13	37.03	21.06	169.05	27.98
Aralla 205	Villasimpliz Mb.	168.98	262.89	8.57	0.00	0.00	0.00	0.00	0.00	18.24	33.32	12.95	122.23	0.00
Aralla 206	Villasimpliz Mb.	165.72	184.53	5.04	0.00	0.00	0.00	9.07	0.00	0.00	0.00	12.26	84.00	0.00
Aralla 207	Villasimpliz Mb.	174.49	345.99	12.79	0.00	0.00	0.00	0.00	0.00	21.88	38.07	18.60	190.84	0.00
Aralla 208	Villasimpliz Mb.	166.35	267.37	5.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< D.L	0.00
Aralla 209	Villasimpliz Mb.	173.73	350.39	14.02	0.00	9.40	0.00	0.00	0.00	0.00	0.00	0.00	154.81	0.00
Aralla 210	Villasimpliz Mb.	176.52	396.76	10.17	0.00	0.00	0.00	0.00	0.00	22.51	0.00	10.16	47.48	25.72
Aralla 211	Villasimpliz Mb.	166.77	240.69	7.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.74	175.35	0.00
Aralla 212	Villasimpliz Mb.	175.18	398.00	9.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< D.L	0.00
Aralla 213	Villasimpliz Mb.	172.02	352.74	13.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	89.81	0.00
Aralla 214	Villasimpliz Mb.	171.31	341.05	12.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.56	154.52	0.00
Aralla 215	Villasimpliz Mb.	182.97	225.06	22.72	0.00	0.00	0.00	0.00	0.00	33.55	40.59	35.23	699.66	26.40
Aralla 216	Villasimpliz Mb.	163.79	327.66	10.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.90	72.21	24.36
Aralla 217	Villasimpliz Mb.	169.05	326.84	12.63	0.00	0.00	0.00	0.00	30.89	0.00	34.90	24.40	298.43	0.00
Aralla 218	Villasimpliz Mb.	156.91	167.07	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< D.L	0.00
Aralla 219	Villasimpliz Mb.	169.29	334.94	11.92	0.00	0.00	0.00	0.00	28.61	0.00	0.00	11.78	173.53	0.00
Aralla 220	Villasimpliz Mb.	171.83	286.11	14.18	0.00	0.00	0.00	0.00	0.00	18.62	0.00	14.38	321.02	28.26
Aralla 221	Villasimpliz Mb.	159.97	204.04	3.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< D.L	21.01
Aralla 222	Villasimpliz Mb.	167.70	284.18	10.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.82	182.86	27.20
Aralla 223	Villasimpliz Mb.	168.99	287.18	11.46	0.00	0.00	0.00	0.00	0.00	18.58	29.61	11.39	198.68	22.24
Aralla 224	Villasimpliz Mb.	157.37	218.43	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< D.L	0.00
Aralla 225	Villasimpliz Mb.	163.90	233.56	7.58	0.00	0.00	0.00	0.00	0.00	26.76	40.87	14.87	142.21	0.00

Sample	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
Aralla 201	Villasimpliz Mb.	0.00	0.00	0.00	0.00	0.00	0.00
Aralla 202	Villasimpliz Mb.	0.00	5.61	0.00	0.00	4.75	5.14
Aralla 203	Villasimpliz Mb.	0.00	5.89	0.00	0.00	14.22	11.15
Aralla 204	Villasimpliz Mb.	0.00	0.00	0.00	0.00	4.25	0.00
Aralla 205	Villasimpliz Mb.	0.00	0.00	0.00	0.00	5.44	0.00
Aralla 206	Villasimpliz Mb.	0.00	0.00	0.00	0.00	5.01	0.00
Aralla 207	Villasimpliz Mb.	0.00	5.10	0.00	0.00	11.63	5.89
Aralla 208	Villasimpliz Mb.	0.00	0.00	0.00	0.00	6.54	0.00
Aralla 209	Villasimpliz Mb.	0.00	0.00	0.00	0.00	12.29	0.00
Aralla 210	Villasimpliz Mb.	0.00	0.00	0.00	0.00	12.17	6.33
Aralla 211	Villasimpliz Mb.	0.00	5.70	0.00	0.00	4.68	0.00
Aralla 212	Villasimpliz Mb.	0.00	4.68	0.00	0.00	11.92	0.00
Aralla 213	Villasimpliz Mb.	0.00	0.00	0.00	0.00	11.34	6.71
Aralla 214	Villasimpliz Mb.	0.00	0.00	0.00	0.00	9.74	6.83
Aralla 215	Villasimpliz Mb.	0.00	5.75	0.00	0.00	11.31	11.79
Aralla 216	Villasimpliz Mb.	0.00	0.00	0.00	0.00	4.97	0.00
Aralla 217	Villasimpliz Mb.	0.00	0.00	0.00	0.00	5.90	7.16
Aralla 218	Villasimpliz Mb.	0.00	0.00	0.00	0.00	4.67	0.00
Aralla 219	Villasimpliz Mb.	0.00	5.09	0.00	0.00	8.52	5.78
Aralla 220	Villasimpliz Mb.	0.00	0.00	0.00	0.00	11.25	8.79
Aralla 221	Villasimpliz Mb.	0.00	4.65	0.00	0.00	5.96	0.00
Aralla 222	Villasimpliz Mb.	0.00	0.00	0.00	0.00	6.73	5.86
Aralla 223	Villasimpliz Mb.	0.00	0.00	0.00	0.00	6.22	0.00
Aralla 224	Villasimpliz Mb.	0.00	5.32	0.00	0.00	3.80	0.00
Aralla 225	Villasimpliz Mb.	0.00	0.00	0.00	0.00	0.00	0.00

Sample	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
Aralla 226	Villasimpliz Mb.	0.00	0.00	390.60	16.79	60.23	18.27	0.00	32.83	0.00	0.00	0.00	0.00	54.31
Aralla 227	Villasimpliz Mb.	0.00	0.00	285.40	0.00	39.79	14.89	0.00	30.22	0.00	0.00	0.00	0.00	42.54
Aralla 228	Villasimpliz Mb.	0.00	0.00	545.79	0.00	78.20	42.19	0.00	50.10	13.20	0.00	12.40	0.00	79.09
Aralla 229	Villasimpliz Mb.	0.00	0.00	489.50	16.59	88.19	41.05	0.00	42.08	19.84	0.00	8.65	0.00	83.43
Aralla 230	Villasimpliz Mb.	0.00	0.00	580.07	0.00	172.82	97.84	0.00	67.86	27.03	45.60	14.97	2.80	179.77
Aralla 231	Villasimpliz Mb.	0.00	0.00	576.11	0.00	119.23	70.78	0.00	63.22	22.15	0.00	11.88	0.00	118.38
Aralla 232	Villasimpliz Mb.	0.00	0.00	456.25	0.00	161.35	113.81	0.00	86.01	31.68	42.58	13.10	0.00	184.37
Aralla 233	Villasimpliz Mb.	0.00	0.00	618.48	0.00	171.56	86.41	0.00	58.81	24.23	40.53	16.65	3.31	168.54
Aralla 234	Villasimpliz Mb.	0.00	0.00	583.25	0.00	151.17	99.95	0.00	60.02	29.89	36.41	11.83	0.00	167.69
Aralla 235	Villasimpliz Mb.	0.00	0.00	443.38	0.00	59.33	18.28	0.00	36.83	15.31	0.00	14.73	0.00	41.45
Aralla 236	Villasimpliz Mb.	0.00	0.00	609.09	23.45	138.58	74.67	0.00	62.03	19.68	42.20	14.12	0.00	147.66
Aralla 237	Villasimpliz Mb.	0.00	0.00	581.36	0.00	168.77	100.33	0.00	83.77	23.42	48.49	14.50	0.00	180.46
Aralla 238	Villasimpliz Mb.	0.00	0.00	565.81	19.39	167.68	107.29	95.42	73.41	29.73	55.37	12.93	0.00	191.16
Aralla 239	Villasimpliz Mb.	0.00	0.00	435.35	0.00	29.81	0.00	0.00	29.45	13.31	0.00	20.19	0.00	26.88
Aralla 240	Villasimpliz Mb.	0.00	0.00	576.35	19.41	167.32	120.10	0.00	62.74	24.59	41.08	12.65	0.00	189.27
Aralla 241	Villasimpliz Mb.	0.00	0.00	567.55	0.00	143.00	97.88	0.00	91.04	26.56	37.88	11.85	0.00	171.03

Sample	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
Aralla 226	Villasimpliz Mb.	164.76	310.40	6.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< D.L	0.00
Aralla 227	Villasimpliz Mb.	158.50	192.95	3.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	< D.L	0.00
Aralla 228	Villasimpliz Mb.	168.70	284.39	11.32	0.00	0.00	0.00	10.34	0.00	20.77	0.00	21.88	264.23	0.00
Aralla 229	Villasimpliz Mb.	171.29	320.56	11.95	0.00	10.39	0.00	0.00	0.00	0.00	0.00	15.28	151.21	26.27
Aralla 230	Villasimpliz Mb.	182.73	338.00	23.96	0.00	0.00	0.00	0.00	0.00	0.00	33.14	17.66	578.01	0.00
Aralla 231	Villasimpliz Mb.	175.58	310.66	17.36	0.00	0.00	0.00	0.00	0.00	21.26	33.23	21.79	371.36	31.23
Aralla 232	Villasimpliz Mb.	183.69	197.34	19.88	0.00	0.00	0.00	0.00	24.43	0.00	39.68	23.91	748.21	33.29
Aralla 233	Villasimpliz Mb.	179.25	252.99	20.52	0.00	0.00	0.00	0.00	0.00	26.64	50.72	29.64	557.32	0.00
Aralla 234	Villasimpliz Mb.	180.39	270.63	22.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.16	487.72	36.90
Aralla 235	Villasimpliz Mb.	160.00	366.93	8.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.30	76.70	24.81
Aralla 236	Villasimpliz Mb.	175.41	305.66	18.85	0.00	13.93	0.00	0.00	0.00	20.91	34.61	24.63	458.31	24.26
Aralla 237	Villasimpliz Mb.	180.27	215.02	20.44	0.00	0.00	0.00	0.00	0.00	0.00	35.90	24.88	520.83	27.46
Aralla 238	Villasimpliz Mb.	185.64	160.32	20.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.25	535.56	31.06
Aralla 239	Villasimpliz Mb.	157.29	245.64	3.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.83	< D.L	0.00
Aralla 240	Villasimpliz Mb.	182.92	204.29	23.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.61	553.32	22.88
Aralla 241	Villasimpliz Mb.	180.45	245.23	22.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.88	467.85	24.90

Sample	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
Aralla 226	Villasimpliz Mb.	0.00	6.71	0.00	0.00	9.68	5.73
Aralla 227	Villasimpliz Mb.	0.00	7.07	0.00	0.00	5.79	0.00
Aralla 228	Villasimpliz Mb.	0.00	6.64	0.00	0.00	6.16	0.00
Aralla 229	Villasimpliz Mb.	0.00	5.47	0.00	0.00	9.69	6.02
Aralla 230	Villasimpliz Mb.	0.00	6.25	0.00	0.00	16.11	13.26
Aralla 231	Villasimpliz Mb.	0.00	0.00	0.00	0.00	9.51	8.66
Aralla 232	Villasimpliz Mb.	0.00	6.00	0.00	0.00	11.64	13.56
Aralla 233	Villasimpliz Mb.	0.00	6.48	0.00	0.00	11.58	11.42
Aralla 234	Villasimpliz Mb.	0.00	5.64	0.00	0.00	13.59	11.89
Aralla 235	Villasimpliz Mb.	0.00	5.45	0.00	0.00	5.07	0.00
Aralla 236	Villasimpliz Mb.	0.00	0.00	0.00	0.00	9.71	9.91
Aralla 237	Villasimpliz Mb.	0.00	0.00	0.00	0.00	11.68	10.88
Aralla 238	Villasimpliz Mb.	0.00	6.85	0.00	0.00	13.65	0.00
Aralla 239	Villasimpliz Mb.	0.00	4.97	0.00	0.00	4.07	0.00
Aralla 240	Villasimpliz Mb.	6.40	7.65	0.00	0.00	16.58	8.30
Aralla 241	Villasimpliz Mb.	0.00	5.71	0.00	0.00	14.95	0.00

2.4 High-res Aralla section – major elements

Sample	Formation	K	Ca	Ti	Mn	Fe
HR 1	Getino	13379.3	> D.L.	3574.12	> D.L.	105914.63
HR 2	Getino	19289.22	114.06	7144.9	80.07	19973.13
HR 3	Getino	35456.9	> D.L.	10439.52	69.66	11282.33
HR 4	Getino	31820.14	> D.L.	125006.88	67.35	11515.78
HR 5	Getino	26283.14	> D.L.	22117.58	> D.L.	28208.29
HR 6	Getino	29673.84	> D.L.	27734.97	62.17	18753.46
HR 7	Getino	32457.4	> D.L.	15673.48	54.59	10760.22
HR 8	Getino	32545.02	> D.L.	43168.73	55.29	7791.38
HR 9	Getino	32355.63	> D.L.	17625.79	77.22	8750.73
HR 10	Getino	9841.44	> D.L.	4469.68	83.47	6829.72
HR 11	Getino	1298.46	79.17	263.84	116.52	7511.71
HR 12	Getino	17360.97	> D.L.	3477.44	87.77	13128.09
HR 13	Getino	23608.67	> D.L.	16614.75	89.07	9794.75
HR 14	Getino	18151.11	> D.L.	12562.09	50.87	11090.73
HR 15	Getino	29308.56	> D.L.	9272.31	81	15244.12
HR 16	Getino	28793.44	> D.L.	11842.25	88.09	16978.95
HR 17	Getino	29366.94	> D.L.	7537.27	52.13	9449.96
HR 18	Getino	26588.1	> D.L.	6568.7	> D.L.	13291.78
HR 19	Getino	29014.66	> D.L.	21965.84	59.71	13989.39
HR 20	Getino	16945.78	101.65	3469.14	70.38	20060.8
HR 21	Getino	19018.12	> D.L.	4279.5	44.28	10279.44
HR 22	Getino	22992.72	> D.L.	5966.58	> D.L.	9376.8
HR 23	Getino	20674.32	> D.L.	66826.47	53.36	10482.3
HR 24	Getino	17644.56	> D.L.	23411.71	61.66	12621.99
HR 25	Getino	16697.25	> D.L.	43795.97	57.72	11568.34
HR 26	Getino	30996.04	> D.L.	17438.79	47.75	10122.87
HR 27	Getino	27587.26	> D.L.	62325.79	> D.L.	20496.99
HR 28	Getino	27343.36	> D.L.	7733.15	89.31	29434.46
HR 29	Getino	20789.44	> D.L.	24099.57	82.3	17311.7
HR 30	Getino	26878.06	> D.L.	6186.17	> D.L.	49170.92
HR 31	Getino	13291.84	> D.L.	4573.06	> D.L.	19434.65
HR 32	Bernesga Mb.	24991.41	> D.L.	68555.04	74.74	12958.55
HR 33	Bernesga Mb.	22018.22	> D.L.	46172.97	> D.L.	92613.44
HR 34	Bernesga Mb.	12449.26	> D.L.	22890.84	152.8	87779.23
HR 35	Bernesga Mb.	12674.24	> D.L.	8537.45	379.79	308893.69
HR 36	Bernesga Mb.	18458.9	> D.L.	37189.13	> D.L.	57815.37
HR 37	Bernesga Mb.	14201.52	> D.L.	2182.79	1271.5	291450.09
HR 38	Bernesga Mb.	13217.08	> D.L.	2273.15	471.68	371995.53
HR 39	Bernesga Mb.	19998.86	> D.L.	3996.06	> D.L.	176525.48
HR 40	Bernesga Mb.	26323.38	> D.L.	5169.41	92.1	48640.84

Sample	Formation	K	Ca	Ti	Mn	Fe
HR 41	Bernesga Mb.	18981.31	> D.L.	3843.41	> D.L.	204762.55
HR 42	Bernesga Mb.	13695.45	> D.L.	2683.41	212.13	122522.7
HR 43	Bernesga Mb.	13309.61	> D.L.	2447.55	260.48	160652.25
HR 44	Bernesga Mb.	12965.2	> D.L.	2407.43	253.55	171251.92
HR 45	Bernesga Mb.	12913.21	> D.L.	2336.03	105.64	60839.25
HR 46	Bernesga Mb.	6869.68	> D.L.	1324.05	> D.L.	71608.28
HR 47	Bernesga Mb.	29381.32	> D.L.	5361.57	> D.L.	122950.46
HR 48	Bernesga Mb.	21116.08	> D.L.	43799.45	190.16	65724.91
HR 49	Bernesga Mb.	19718.99	> D.L.	8103.32	182.87	107858.26
HR 50	Bernesga Mb.	18879.96	> D.L.	21714.35	155.99	190124.58
HR 51	Bernesga Mb.	15679.64	> D.L.	2800.31	187.78	163686.36
HR 52	Bernesga Mb.	20105.78	> D.L.	3891.57	129.61	41670.04
HR 53	Bernesga Mb.	24313.89	384.44	5225.75	122.63	27398.25
HR 54	Bernesga Mb.	27292.51	> D.L.	5412.41	65.39	30448.99
HR 55	Bernesga Mb.	38587.58	> D.L.	7477.2	60.65	29674.67
HR 56	Bernesga Mb.	17534.02	> D.L.	3520.63	140.58	119378.7
HR 57	Bernesga Mb.	23644.8	> D.L.	4959.57	167.76	109778.55
HR 58	Bernesga Mb.	31651.6	> D.L.	33814.13	60.24	8585.06
HR 59	Bernesga Mb.	25827.79	124.33	15368.74	94.65	10067.99
HR 60	Bernesga Mb.	16037.65	> D.L.	3323.83	68.45	35967.01
HR 61	Bernesga Mb.	30936.53	> D.L.	22031.93	70.06	10283.44
HR 62	Bernesga Mb.	26499.99	> D.L.	9524.56	71.1	19152.03
HR 63	Bernesga Mb.	19141.49	> D.L.	3685.5	59.74	8233.44
HR 64	Bernesga Mb.	8948.36	> D.L.	9035.69	> D.L.	525392.38
HR 65	Bernesga Mb.	8992.17	> D.L.	21044.26	> D.L.	1015608.88
HR 66	Bernesga Mb.	17540.22	> D.L.	20024.11	137.59	222984.22
HR 67	Bernesga Mb.	23029.08	951.47	4517.22	193.93	64987.72
HR 68	Bernesga Mb.	18181.35	292.84	3608.78	246.79	78342.96
HR 69	Bernesga Mb.	18402.65	198.71	4170.97	151.78	76194.63
HR 70	Bernesga Mb.	16979.97	> D.L.	4019.4	104.48	34253.09
HR 71	Bernesga Mb.	9499.53	> D.L.	2557.42	> D.L.	178514
HR 72	Bernesga Mb.	15340.16	> D.L.	5257.9	149.32	139588.34
HR 73	Bernesga Mb.	26336.93	> D.L.	6176.51	93.14	49617.18
HR 74	Bernesga Mb.	17009.27	> D.L.	4042.02	74.27	32352.29
HR 75	Bernesga Mb.	13343.94	> D.L.	3194.92	85.26	20880.16
HR 76	Bernesga Mb.	31894.71	> D.L.	7136.52	90.27	25734.88
HR 77	Bernesga Mb.	16453.17	> D.L.	4139.49	61.74	21979.97
HR 78	Bernesga Mb.	19004.55	> D.L.	4457	55.45	6571.16
HR 79	Bernesga Mb.	22348.83	> D.L.	6691.42	52.37	7342.16
HR 80	Bernesga Mb.	14963.65	> D.L.	3467.32	> D.L.	378004.88

Sample	Formation	K	Ca	Ti	Mn	Fe
HR 81	Bernesga Mb.	24723.23	> D.L.	6232.12	59.72	25510.22
HR 82	Bernesga Mb.	21469.73	> D.L.	5090.45	66.09	21728.8
HR 83	Bernesga Mb.	22709.96	> D.L.	5847.09	125.32	84617.05
HR 84	Bernesga Mb.	4561.99	> D.L.	855.94	360.7	501341.84
HR 85	Bernesga Mb.	16520.08	> D.L.	3821.79	> D.L.	45962.58
HR 86	Bernesga Mb.	12109.19	> D.L.	3154.91	159.08	263162.03
HR 87	Bernesga Mb.	23677.23	> D.L.	5722.73	107.65	56594.42
HR 88	Bernesga Mb.	7610.87	> D.L.	2088.26	83.14	9984.51
HR 89	Bernesga Mb.	28565.93	> D.L.	7091.8	129.96	73321.56
HR 90	Bernesga Mb.	20750.23	> D.L.	5217.46	> D.L.	87145.55
HR 91	Bernesga Mb.	6889.59	> D.L.	2217.44	> D.L.	349956.78
HR 92	Bernesga Mb.	16732.97	> D.L.	4136.37	166.21	152451.81
HR 93	Bernesga Mb.	29834.22	> D.L.	7401.42	119.98	36364.95
HR 94	Bernesga Mb.	25554.12	> D.L.	5908.64	79.15	21748.46
HR 95	Bernesga Mb.	14105.21	> D.L.	3633.69	101.48	113607.63
HR 96	Bernesga Mb.	11690.7	> D.L.	2697.54	> D.L.	301927.41
HR 97	Bernesga Mb.	20316.82	> D.L.	4782.39	74.17	46635.73
HR 98	Bernesga Mb.	24597.03	> D.L.	5779.34	> D.L.	35552.91
HR 99	Bernesga Mb.	23447.53	> D.L.	5193.22	> D.L.	161415.59
HR 100	Bernesga Mb.	26768.24	> D.L.	5400.16	> D.L.	41856.99
HR 101	Bernesga Mb.	18603.42	> D.L.	4258.77	121.03	98885.59
HR 102	Bernesga Mb.	14698.39	> D.L.	2552.05	214.73	443136.69
HR 103	Bernesga Mb.	17813.69	> D.L.	4246.9	133.79	205671.67
HR 104	Bernesga Mb.	5237.63	> D.L.	1512.28	96.7	53957.8
HR 105	Bernesga Mb.	21286.08	> D.L.	5238.38	98.03	64595.01
HR 106	Bernesga Mb.	22537.34	> D.L.	5701.83	123.62	65936.56
HR 107	Bernesga Mb.	23315.31	> D.L.	5351.45	> D.L.	103123.88
HR 108	Bernesga Mb.	29081.6	> D.L.	7379.06	64.77	45123.99
HR 109	Bernesga Mb.	24637.14	> D.L.	6475.53	132.13	92706.79
HR 110	Bernesga Mb.	22683.66	> D.L.	5833.45	95.67	88473.25
HR 111	Bernesga Mb.	26436.94	> D.L.	6680.33	77.82	68688.63
HR 112	Bernesga Mb.	14845.95	> D.L.	4063.03	> D.L.	92683.01
HR 113	Bernesga Mb.	12767.54	> D.L.	3907.42	95.8	132250.38
HR 114	Bernesga Mb.	13385.14	> D.L.	3391.14	105.29	60289.06
HR 115	Bernesga Mb.	39246.6	> D.L.	9178.46	50.11	12784.04
HR 116	Bernesga Mb.	14482.87	> D.L.	4156.47	134.57	236938.55
HR 117	Bernesga Mb.	4876.73	> D.L.	1299.9	> D.L.	173551.86
HR 118	Bernesga Mb.	20840.53	> D.L.	5009.03	73.49	14473.54
HR 119	Bernesga Mb.	15668.62	> D.L.	3989.17	> D.L.	283764.63
HR 120	Bernesga Mb.	18768.09	> D.L.	5466.73	> D.L.	84497.92

Sample	Formation	K	Ca	Ti	Mn	Fe
HR 121	Bernesga Mb.	12933.14	> D.L.	3622.63	70.51	25693.38
HR 122	Bernesga Mb.	16240.19	> D.L.	4356.52	> D.L.	75336.01
HR 123	Bernesga Mb.	19263.96	> D.L.	5696.34	58.15	22309.25
HR 124	Bernesga Mb.	11604.49	> D.L.	3735.9	> D.L.	117561.99
HR 125	Bernesga Mb.	18484.41	> D.L.	4602.03	67.72	57515.72
HR 126	Bernesga Mb.	16036.52	> D.L.	4461.93	134.77	226424.8
HR 127	Bernesga Mb.	16107.36	> D.L.	3303.31	> D.L.	344636.09
HR 128	Bernesga Mb.	14084.1	> D.L.	22483.7	97.19	38958.52
HR 129	Bernesga Mb.	18522.57	> D.L.	4638.65	> D.L.	66634.91
HR 130	Bernesga Mb.	21886.28	> D.L.	5225.71	> D.L.	67956.32
HR 131	Bernesga Mb.	20571.98	> D.L.	5676.98	> D.L.	77056.51
HR 132	Bernesga Mb.	14667.2	> D.L.	3931.72	119.34	111316.63
HR 133	Bernesga Mb.	22399.63	> D.L.	5435.48	102.01	68809.61
HR 134	Bernesga Mb.	15640.38	> D.L.	3851.43	116.8	101434.27
HR 135	Bernesga Mb.	21904.41	> D.L.	4989.4	65.25	20375.14
HR 136	Bernesga Mb.	19497.72	> D.L.	5053.23	> D.L.	186621.66
HR 137	Bernesga Mb.	25524.5	> D.L.	7217.3	64.99	31884.5
HR 138	Bernesga Mb.	15278.3	> D.L.	4158.13	89.48	100966.64
HR 139	Bernesga Mb.	23832.42	> D.L.	6128.02	80.19	32542.22
HR 140	Bernesga Mb.	15949.43	> D.L.	4103.91	70.48	24610.15
HR 141	Bernesga Mb.	19428.54	992.12	4915.33	125.95	40672.1
HR 142	Bernesga Mb.	11374.27	> D.L.	3666.99	73.87	28739.74
HR 143	Bernesga Mb.	15450.69	> D.L.	4657.34	60.66	14100.49
HR 144	Bernesga Mb.	16277	> D.L.	4237.4	60.5	23841.45
HR 145	Bernesga Mb.	18383.62	> D.L.	4730.6	72.08	37938.04
HR 146	Bernesga Mb.	18610.55	> D.L.	5521.57	83.2	17486.65
HR 147	Bernesga Mb.	12750	> D.L.	3802.87	56.75	19009.54
HR 148	Bernesga Mb.	16962.49	> D.L.	3990.51	103.29	130486.86
HR 149	Bernesga Mb.	23730.15	> D.L.	5582.77	> D.L.	95473.88
HR 150	Bernesga Mb.	14800.55	> D.L.	3708.36	76.4	18994.87
HR 151	Bernesga Mb.	14738.93	> D.L.	3364.54	> D.L.	342589.75
HR 152	Bernesga Mb.	27165.51	> D.L.	5930.04	61.54	42424.57
HR 153	Bernesga Mb.	30573.18	> D.L.	7588.62	66.05	19996.67
HR 154	Bernesga Mb.	12710.51	> D.L.	3306.01	141.36	170126.89
HR 155	Bernesga Mb.	6856.21	> D.L.	2142.65	> D.L.	272233.63
HR 156	Bernesga Mb.	18398.56	> D.L.	4153.94	> D.L.	112876.81
HR 157	Bernesga Mb.	25562.51	> D.L.	5981.36	56.06	25278.1
HR 158	Bernesga Mb.	16280.49	> D.L.	3825.2	100.91	156384.86
HR 159	Bernesga Mb.	29112.27	> D.L.	6381.73	55.69	19006.12
HR 160	Bernesga Mb.	25234.01	> D.L.	16460.16	71.24	20983.4

Sample	Formation	K	Ca	Ti	Mn	Fe
HR 161	Bernesga Mb.	20178.81	> D.L.	5250.93	40.87	10733.19
HR 162	Bernesga Mb.	28055.16	> D.L.	6515.17	54.6	13159.4
HR 163	Bernesga Mb.	27532.58	> D.L.	5915.94	71.47	25152.61
HR 164	Bernesga Mb.	22797.64	> D.L.	5203.52	58.77	9079.66
HR 165	Bernesga Mb.	5765.54	> D.L.	1611.15	> D.L.	545788.5
HR 166	Bernesga Mb.	22654.09	> D.L.	4895.37	> D.L.	58782.6
HR 167	Bernesga Mb.	21271.41	> D.L.	4758.19	> D.L.	13486.26
HR 168	Bernesga Mb.	9079.23	> D.L.	2097.91	> D.L.	34872.04
HR 169	Bernesga Mb.	20017.87	> D.L.	4425.48	126.46	160002.25
HR 170	Bernesga Mb.	19042.78	> D.L.	4369.52	> D.L.	10365.58
HR 171	Bernesga Mb.	22913.63	> D.L.	5679.74	42.89	9689.42
HR 172	Bernesga Mb.	23053.35	> D.L.	4919.89	54.27	25473.16
HR 173	Bernesga Mb.	21572.92	> D.L.	4680.24	68.35	29467.72
HR 174	Bernesga Mb.	13818.25	> D.L.	3446.84	> D.L.	158794.5
HR 175	Bernesga Mb.	24777.8	> D.L.	5828.52	55	9701.62
HR 176	Bernesga Mb.	26740.5	> D.L.	49876.48	45.63	13367.53
HR 177	Bernesga Mb.	35232.19	> D.L.	9887.01	62.99	14394.42
HR 178	Bernesga Mb.	32335.79	> D.L.	7404.06	54.07	6625.81
HR 179	Bernesga Mb.	33661.25	> D.L.	7262.65	> D.L.	29499.38
HR 180	Bernesga Mb.	32603.42	> D.L.	7430.54	52.68	15683.48
HR 181	Bernesga Mb.	20075.8	> D.L.	4855.25	> D.L.	24931.66
HR 182	Bernesga Mb.	17468.53	> D.L.	3584.29	62.51	14524.99
HR 183	Bernesga Mb.	31360.6	> D.L.	8654.42	46.31	7754.59
HR 184	Bernesga Mb.	12405.7	> D.L.	2665.83	> D.L.	10486.23
HR 185	Bernesga Mb.	16252.09	> D.L.	4205.22	> D.L.	159915.5
HR 186	Bernesga Mb.	32462.28	> D.L.	6471.15	77.1	27710.66
HR 187	Bernesga Mb.	22561.27	215.42	9395.14	54.18	8394.98
HR 188	Bernesga Mb.	32279.15	> D.L.	6622.93	63.25	7840.52
HR 189	Bernesga Mb.	14657.71	> D.L.	17738.89	> D.L.	5249.66
HR 190	Bernesga Mb.	21277.1	> D.L.	4919.48	91.68	9281.39
HR 191	Bernesga Mb.	19379.16	> D.L.	3990.57	> D.L.	20527.73
HR 192	Bernesga Mb.	29884.77	> D.L.	6528.96	> D.L.	10189.64
HR 193	Bernesga Mb.	23497.46	> D.L.	4955.2	> D.L.	7365.87
HR 194	Bernesga Mb.	26923.28	> D.L.	5678.33	82.66	25999.34
HR 195	Bernesga Mb.	29458.3	> D.L.	6321.9	> D.L.	17024.32
HR 196	Bernesga Mb.	27591.81	> D.L.	5976.85	47.53	8034.51
HR 197	Bernesga Mb.	28335.76	> D.L.	5851.63	> D.L.	26194.92
HR 198	Bernesga Mb.	30172.04	> D.L.	6623.56	> D.L.	23833.75
HR 199	Bernesga Mb.	30375.45	> D.L.	6518.32	56.27	17337.33
HR 200	Bernesga Mb.	20896.59	> D.L.	4425.82	89.71	69060.26

Sample	Formation	K	Ca	Ti	Mn	Fe
HR 201	Bernesga Mb.	17993.52	> D.L.	4703.42	102.31	46254.89
HR 202	Bernesga Mb.	12569.31	> D.L.	2955.27	> D.L.	184670.05
HR 203	Bernesga Mb.	12597.71	87.5	2683.31	> D.L.	40370.45
HR 204	Bernesga Mb.	26373.49	> D.L.	7020.62	58.19	17409.56
HR 205	Bernesga Mb.	17213.69	> D.L.	3825.44	112.93	68295.06
HR 206	Bernesga Mb.	15458.74	> D.L.	3264.52	> D.L.	15497.42
HR 207	Bernesga Mb.	7940.01	> D.L.	1741.11	> D.L.	180053.89
HR 208	Bernesga Mb.	33560.68	> D.L.	6926.2	> D.L.	10106.25
HR 209	Bernesga Mb.	39744.16	> D.L.	8319.36	44.89	17143.34
HR 210	Bernesga Mb.	25169.4	> D.L.	5321.79	45.36	8770.12
HR 211	Bernesga Mb.	11759.95	> D.L.	2679.29	> D.L.	17520.91
HR 212	Bernesga Mb.	24249.21	> D.L.	5134.39	59.35	28922.29
HR 213	Bernesga Mb.	3692.76	> D.L.	799.82	> D.L.	11018.76
HR 214	Bernesga Mb.	28008.96	> D.L.	6360.9	41.69	8761.62
HR 215	Bernesga Mb.	27034.18	> D.L.	5696.82	66.2	29773.91
HR 216	Bernesga Mb.	27214.74	> D.L.	6000.18	> D.L.	12089.91
HR 217	Bernesga Mb.	22679.36	> D.L.	4748.23	63.47	29602.04
HR 218	Bernesga Mb.	30530.36	> D.L.	6620.04	64.06	14346.55
HR 219	Bernesga Mb.	19863.17	> D.L.	5462.13	110.53	163248.28
HR 220	Bernesga Mb.	25983.37	> D.L.	6046.05	> D.L.	11023.59
HR 221	Bernesga Mb.	26506.54	> D.L.	5965.31	61.77	20400.09
HR 222	Bernesga Mb.	27866.82	> D.L.	6385.53	72.17	60814.36
HR 223	Bernesga Mb.	25404.62	> D.L.	5825.98	> D.L.	51430.82
HR 224	Bernesga Mb.	23722.94	> D.L.	5539.16	79.9	49281.54
HR 225	Bernesga Mb.	31630.3	> D.L.	7633.72	61.97	20282.27
HR 226	Bernesga Mb.	19535.51	380.72	4350.76	293.68	115547.73
HR 227	Bernesga Mb.	32232.29	267.25	7032.2	100.06	7545.34
HR 228	Bernesga Mb.	23163.59	336.05	5303.84	90.51	11372.93
HR 229	Bernesga Mb.	17429.58	> D.L.	3881.7	57.82	6896.16
HR 230	Bernesga Mb.	24118.94	> D.L.	5038.35	52.15	9902.05
HR 231	Bernesga Mb.	28962.93	> D.L.	6419.08	61	11102.94
HR 232	Bernesga Mb.	34664.82	> D.L.	7386.26	80.9	13365.08
HR 233	Bernesga Mb.	22754.86	> D.L.	4503.5	43.16	6773.69
HR 234	Bernesga Mb.	20365.84	> D.L.	4070.71	75.04	7143.08
HR 235	Bernesga Mb.	6990.58	> D.L.	1835.13	> D.L.	31922.4
HR 236	Bernesga Mb.	7978.3	> D.L.	2258.84	> D.L.	96668.21
HR 237	Bernesga Mb.	16088.71	> D.L.	3704.96	> D.L.	12268.98
HR 238	Bernesga Mb.	19201.46	> D.L.	4298.07	155.8	149690.06
HR 239	Bernesga Mb.	11717.51	> D.L.	2862.67	80.71	14327.42
HR 240	Bernesga Mb.	14741.07	> D.L.	3309.28	83.19	23839.23

Sample	Formation	K	Ca	Ti	Mn	Fe
HR 241	Bernesga Mb.	13766.61	> D.L.	3434.11	68.64	25445.63
HR 242	Bernesga Mb.	26325.89	> D.L.	6391.57	123.77	89062.77
HR 243	Bernesga Mb.	20998.6	> D.L.	4994.48	95.06	63884.14
HR 244	Bernesga Mb.	9316.18	> D.L.	2639.43	113.98	113236.58
HR 245	Bernesga Mb.	19631.68	> D.L.	5048.49	71.04	60681.41
HR 246	Bernesga Mb.	14191.68	> D.L.	3026.95	622.01	794651
HR 247	Bernesga Mb.	21073.7	191.08	5428.77	173.65	36074.46
HR 248	Bernesga Mb.	15925.85	361.4	4712.4	113.04	38194.58
HR 249	Bernesga Mb.	22642.03	> D.L.	7318.73	> D.L.	106406.15
HR 250	Bernesga Mb.	19401.69	> D.L.	5400.87	> D.L.	153060.73
HR 251	Bernesga Mb.	21363.04	> D.L.	6219.58	88.19	23568.65
HR 252	Bernesga Mb.	16690.79	> D.L.	4701.46	> D.L.	59464.08
HR 253	Bernesga Mb.	24712.74	> D.L.	6527.86	91.66	60532.53
HR 254	Bernesga Mb.	26550.77	> D.L.	6451.7	76.3	28914.19
HR 255	Bernesga Mb.	20265.2	239.46	5302.47	115.64	49878.43
HR 256	Bernesga Mb.	18274.74	> D.L.	4509.06	93.99	43435.83
HR 257	Bernesga Mb.	20393.43	> D.L.	4922.98	113.42	132732.77
HR 258	Bernesga Mb.	15461.79	> D.L.	3971.58	155.09	201211.75
HR 259	Bernesga Mb.	15657.65	> D.L.	3730.42	105.38	121517.01
HR 260	Bernesga Mb.	16419.29	> D.L.	3972.85	60.66	18093.23
HR 261	Bernesga Mb.	27544.77	> D.L.	6264.15	> D.L.	102011.27
HR 262	Bernesga Mb.	11355.62	> D.L.	2819.79	> D.L.	297812.03
HR 263	Bernesga Mb.	12712.63	> D.L.	3653.83	> D.L.	230568.55
HR 264	Bernesga Mb.	26629.68	> D.L.	5923.26	62.37	42441.51
HR 265	Bernesga Mb.	18265.15	> D.L.	4588.7	126.15	124813.03
HR 266	Bernesga Mb.	6967.6	> D.L.	1938.26	> D.L.	158656.39
HR 267	Bernesga Mb.	9307.91	> D.L.	2707.24	> D.L.	252796.55
HR 268	Bernesga Mb.	16608.73	> D.L.	4069.87	> D.L.	118950.05
HR 269	Bernesga Mb.	12821.71	> D.L.	3268.87	162.33	189096.67
HR 270	Bernesga Mb.	12411.03	> D.L.	3247.85	> D.L.	148002.59
HR 271	Bernesga Mb.	10197.29	148.13	2535.36	81.41	25956.37
HR 272	Bernesga Mb.	25212.68	> D.L.	5816.95	> D.L.	41183.79
HR 273	Bernesga Mb.	12332.27	> D.L.	3233.56	64.53	39516.06
HR 274	Bernesga Mb.	18249.1	> D.L.	4442.58	> D.L.	74013.01
HR 275	Bernesga Mb.	19137.15	> D.L.	5194.19	> D.L.	40906.07
HR 276	Bernesga Mb.	29940.36	> D.L.	7525.87	62.78	17868.76
HR 277	Bernesga Mb.	21136.08	> D.L.	5784.24	74.73	16159.78
HR 278	Bernesga Mb.	21625.41	> D.L.	5337.77	83.27	21582.68
HR 279	Bernesga Mb.	28383.28	> D.L.	6541.96	> D.L.	32459.31
HR 280	Bernesga Mb.	25431.93	> D.L.	6169.94	66.57	14221.53

Sample	Formation	K	Ca	Ti	Mn	Fe
HR 281	Bernesga Mb.	13100.52	> D.L.	3715.01	104.95	42517.17
HR 282	Bernesga Mb.	19018.68	> D.L.	4862.08	78.25	30397.13
HR 283	Bernesga Mb.	27250.28	> D.L.	7309.2	> D.L.	61787.62
HR 284	Bernesga Mb.	11970.1	> D.L.	3089.51	> D.L.	18172.29
HR 285	Bernesga Mb.	21857.31	> D.L.	5109.01	> D.L.	105123.35
HR 286	Bernesga Mb.	20198.96	> D.L.	4717.41	> D.L.	35476.38
HR 287	Bernesga Mb.	26385.01	> D.L.	6278.09	50.86	11590.66
HR 288	Bernesga Mb.	18763.51	> D.L.	4435.22	46.45	16770.99
HR 289	Bernesga Mb.	21385.28	> D.L.	5161.48	69.82	54062.98
HR 290	Bernesga Mb.	27522.75	> D.L.	6717.18	> D.L.	33139.02
HR 291	Bernesga Mb.	24503.34	> D.L.	6412.47	> D.L.	20327.19
HR 292	Bernesga Mb.	19129.04	> D.L.	5268.92	97.85	119795.91
HR 293	Bernesga Mb.	22627.84	> D.L.	5695.18	51.99	29349.13
HR 294	Bernesga Mb.	13061.62	> D.L.	3488.36	57.81	14531.24
HR 295	Bernesga Mb.	32953.33	> D.L.	7880.32	47.76	22545.29
HR 296	Bernesga Mb.	18658.34	> D.L.	5069.99	129.3	126080.87
HR 297	Bernesga Mb.	24148.21	> D.L.	5911.59	87.33	102386.15
HR 298	Bernesga Mb.	21249.55	> D.L.	5427.61	> D.L.	94453.93
HR 299	Bernesga Mb.	19704.02	> D.L.	6484.3	150.6	151272.03
HR 300	Bernesga Mb.	30146.54	> D.L.	6375.71	57.62	15549.33
HR 301	Bernesga Mb.	10123.47	> D.L.	2603.63	79.28	46410.54
HR 302	Bernesga Mb.	22209.86	> D.L.	5965.26	> D.L.	125979.08
HR 303	Bernesga Mb.	17063.29	> D.L.	4210.05	349.67	325799.44
HR 304	Bernesga Mb.	21545.1	> D.L.	5202.23	1012.64	253116.92
HR 305	Bernesga Mb.	22402.93	> D.L.	5134.62	62.7	24788.83
HR 306	Bernesga Mb.	17068.06	> D.L.	3903.49	94.27	101747.14
HR 307	Bernesga Mb.	14794.37	> D.L.	3261.56	99.75	103339.48
HR 308	Bernesga Mb.	21477.57	> D.L.	4483.91	404.8	184188.75
HR 309	Bernesga Mb.	13383.7	> D.L.	2992.68	190.58	50745.61
HR 310	Bernesga Mb.	23252.02	> D.L.	5335.96	51.58	22489.44
HR 311	Bernesga Mb.	16756.02	> D.L.	4458.43	97.75	59779.25
HR 312	Bernesga Mb.	21184.58	> D.L.	5281.3	> D.L.	86418.91
HR 313	Bernesga Mb.	27124.15	> D.L.	6183.56	592.68	109665.11
HR 314	Bernesga Mb.	24910.23	> D.L.	6213.2	258.08	98292.8
HR 315	Bernesga Mb.	18999.48	> D.L.	4666.02	> D.L.	12242.37
HR 316	Bernesga Mb.	18998.75	> D.L.	4421.55	180.8	56977.82
HR 317	Bernesga Mb.	22920.91	> D.L.	6402.35	197.2	137694.36
HR 318	Bernesga Mb.	19704.59	> D.L.	4616.16	> D.L.	11263.29
HR 319	Bernesga Mb.	16712.61	> D.L.	3812.2	95.96	30363.55
HR 320	Bernesga Mb.	13368.98	> D.L.	4038.21	173.85	237422.88

Sample	Formation	K	Ca	Ti	Mn	Fe
HR 321	Bernesga Mb.	28675.79	> D.L.	6615.06	68.32	14208.69
HR 322	Bernesga Mb.	22187.93	> D.L.	5428.58	65.56	39290.05
HR 323	Bernesga Mb.	21556.93	> D.L.	5529.65	65.81	34079.63
HR 324	Bernesga Mb.	29371.07	> D.L.	6729.04	73.46	16363
HR 325	Bernesga Mb.	12796.13	> D.L.	3376.84	> D.L.	18894.24
HR 326	Bernesga Mb.	17567.9	> D.L.	4410.78	79.77	56561.79
HR 327	Bernesga Mb.	14220.09	> D.L.	3685.61	> D.L.	51432.39
HR 328	Bernesga Mb.	30342.34	> D.L.	6897.81	> D.L.	46632.44
HR 329	Bernesga Mb.	28826.59	> D.L.	7198.98	87.35	15458.03
HR 330	Bernesga Mb.	23980	> D.L.	6610.66	99.72	52403.21
HR 331	Bernesga Mb.	26758.01	> D.L.	7201.09	87.68	50225.62
HR 332	Bernesga Mb.	26046.56	> D.L.	7469.92	68.88	31596.78
HR 333	Bernesga Mb.	20646.37	> D.L.	5395.98	> D.L.	33360.48
HR 334	Bernesga Mb.	28545.03	> D.L.	7528.98	91.18	26028.28
HR 335	Bernesga Mb.	25368.32	> D.L.	7162.77	85.04	36978.47
HR 336	Bernesga Mb.	18940.41	> D.L.	5176.46	91.7	38077.13
HR 337	Bernesga Mb.	26432.5	> D.L.	6840.66	> D.L.	22056.33
HR 338	Bernesga Mb.	13575.24	> D.L.	3014.17	95.63	103284.04
HR 339	Bernesga Mb.	3112.29	> D.L.	809.17	> D.L.	38442.88

2.5 High-res Aralla section – trace elements

Sample	Formation	S	Sc	V	Cr	Co	Ni	Cu	Zn	As	Se	Rb	Sr	Zr	Mo
HR 1	Getino	<D.L.	<D.L.	91.68	37.5	<D.L.	<D.L.	<D.L.	<D.L.	210.45	<D.L.	42.49	223.28	268.81	<D.L.
HR 2	Getino	<D.L.	<D.L.	67.75	48.57	<D.L.	<D.L.	17.46	<D.L.	68.31	<D.L.	117.73	450.56	156.91	<D.L.
HR 3	Getino	<D.L.	<D.L.	112.22	97.75	<D.L.	<D.L.	16.09	<D.L.	23.62	<D.L.	144.7	513.14	184.32	<D.L.
HR 4	Getino	<D.L.	<D.L.	<D.L.	137.73	<D.L.	<D.L.	<D.L.	<D.L.	53.82	<D.L.	147.93	509.84	170.41	<D.L.
HR 5	Getino	<D.L.	<D.L.	77.57	68.46	<D.L.	<D.L.	<D.L.	<D.L.	104.05	<D.L.	136.83	497.59	168.55	<D.L.
HR 6	Getino	<D.L.	<D.L.	<D.L.	74.9	<D.L.	<D.L.	<D.L.	<D.L.	127.34	<D.L.	152.29	546.75	186.34	<D.L.
HR 7	Getino	<D.L.	<D.L.	78.8	87.4	<D.L.	<D.L.	<D.L.	10.83	66.64	<D.L.	156.42	580.23	193.18	<D.L.
HR 8	Getino	<D.L.	<D.L.	<D.L.	88.81	<D.L.	<D.L.	<D.L.	7.5	35.4	<D.L.	148.87	573.22	188.76	<D.L.
HR 9	Getino	<D.L.	<D.L.	111.91	93.88	<D.L.	<D.L.	18.41	<D.L.	52.79	<D.L.	146.89	619.48	188.74	<D.L.
HR 10	Getino	<D.L.	<D.L.	38.48	22.82	<D.L.	<D.L.	<D.L.	10.53	39.06	<D.L.	131.66	653.36	174.57	<D.L.
HR 11	Getino	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	65.2	<D.L.	96.15	456.46	154.16	<D.L.
HR 12	Getino	<D.L.	<D.L.	78.43	51.48	<D.L.	<D.L.	<D.L.	<D.L.	56.75	<D.L.	125.83	635.27	192.25	<D.L.
HR 13	Getino	<D.L.	<D.L.	85.59	72.15	<D.L.	<D.L.	<D.L.	<D.L.	50.22	<D.L.	112.96	558.18	204.54	<D.L.
HR 14	Getino	318.98	<D.L.	100.84	65.38	<D.L.	<D.L.	27	<D.L.	67.78	<D.L.	83.67	402.03	241.08	<D.L.
HR 15	Getino	628.85	<D.L.	153.61	76.01	<D.L.	<D.L.	16.43	<D.L.	119.16	<D.L.	117.98	636.69	225.56	<D.L.
HR 16	Getino	637.63	<D.L.	169.22	104.26	<D.L.	<D.L.	19.6	<D.L.	184.03	<D.L.	112.22	776.49	214.59	4.01
HR 17	Getino	<D.L.	<D.L.	169.7	101.91	<D.L.	<D.L.	20.44	<D.L.	38.54	<D.L.	84.38	381.37	279.83	<D.L.
HR 18	Getino	<D.L.	<D.L.	141.06	91.73	<D.L.	<D.L.	18.23	<D.L.	61.79	<D.L.	84.09	341.26	257.11	<D.L.
HR 19	Getino	<D.L.	<D.L.	109.17	75.27	<D.L.	<D.L.	21.35	<D.L.	67.29	<D.L.	87.3	367.19	262.22	<D.L.
HR 20	Getino	<D.L.	<D.L.	94.04	48.14	<D.L.	<D.L.	30.9	<D.L.	76.26	<D.L.	94.85	368.83	198.85	<D.L.
HR 21	Getino	<D.L.	<D.L.	119.34	49.09	<D.L.	<D.L.	20.78	<D.L.	39.55	<D.L.	100.62	409.72	233.02	<D.L.
HR 22	Getino	<D.L.	<D.L.	97.57	68.1	<D.L.	<D.L.	<D.L.	<D.L.	34.24	<D.L.	91.62	342.14	308.94	<D.L.
HR 23	Getino	<D.L.	<D.L.	<D.L.	63.8	<D.L.	<D.L.	<D.L.	<D.L.	22.26	<D.L.	76.09	290.35	297.62	<D.L.
HR 24	Getino	<D.L.	<D.L.	72.28	65.45	<D.L.	<D.L.	16.96	<D.L.	33.09	<D.L.	89.39	350.54	285.24	<D.L.
HR 25	Getino	<D.L.	<D.L.	<D.L.	53.71	<D.L.	<D.L.	<D.L.	<D.L.	27.73	<D.L.	85.11	338.64	300.11	<D.L.

Sample	Formation	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba	W	Au	Hg	Pb	Th	U
HR 1	Getino	<D.L.	135.22	19.62	62.95	78.36	131.61	71.38	402.99	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 2	Getino	<D.L.	74.8	<D.L.	43.18	54.69	67.71	54.79	509.47	<D.L.	<D.L.	<D.L.	<D.L.	11.41	<D.L.
HR 3	Getino	<D.L.	73.2	<D.L.	40.98	55.26	60.64	56.03	557.26	<D.L.	<D.L.	6.08	<D.L.	18.26	<D.L.
HR 4	Getino	<D.L.	100.28	<D.L.	52.9	87.87	95.06	64.22	637.71	<D.L.	<D.L.	<D.L.	<D.L.	17.89	<D.L.
HR 5	Getino	<D.L.	138.77	22.14	83.6	108.42	190.81	95.77	753.13	<D.L.	<D.L.	<D.L.	<D.L.	12.95	<D.L.
HR 6	Getino	<D.L.	114.4	21.1	68.69	93.19	135.98	92.04	729.9	<D.L.	<D.L.	<D.L.	<D.L.	15.23	<D.L.
HR 7	Getino	<D.L.	104.48	20.95	73.27	79.6	151.56	76.66	691.21	<D.L.	<D.L.	<D.L.	7.7	20.01	<D.L.
HR 8	Getino	<D.L.	100.82	12.25	58.82	69.64	99.65	67.02	691.6	<D.L.	<D.L.	<D.L.	7.44	20.96	11.1
HR 9	Getino	<D.L.	74.06	<D.L.	41.64	48.81	70.25	58.94	676.99	<D.L.	<D.L.	<D.L.	12.61	20.6	<D.L.
HR 10	Getino	<D.L.	294.76	26.82	106.75	128.59	264.64	146.78	940.37	<D.L.	<D.L.	<D.L.	<D.L.	18.94	<D.L.
HR 11	Getino	<D.L.	533.46	<D.L.	134.33	160.84	255.56	148.19	1112.19	<D.L.	<D.L.	<D.L.	<D.L.	15.78	<D.L.
HR 12	Getino	<D.L.	126.87	18.96	85.97	94.16	133.72	83.53	781.16	<D.L.	<D.L.	<D.L.	<D.L.	25.3	<D.L.
HR 13	Getino	<D.L.	113.33	<D.L.	90.02	55.21	119.94	96.13	908.59	<D.L.	<D.L.	6.25	<D.L.	17.44	<D.L.
HR 14	Getino	<D.L.	88.08	<D.L.	<D.L.	55.88	105.92	61.25	565.07	<D.L.	<D.L.	<D.L.	12.6	16.19	<D.L.
HR 15	Getino	<D.L.	47.98	<D.L.	30.86	29.5	<D.L.	48.01	1125.71	<D.L.	<D.L.	8.16	47.49	22.48	14.68
HR 16	Getino	<D.L.	87.02	<D.L.	31.92	50.04	58.16	61.18	1001.5	<D.L.	<D.L.	<D.L.	73.94	28.77	<D.L.
HR 17	Getino	<D.L.	65.26	<D.L.	37.68	46.35	50.21	56.18	404.51	<D.L.	<D.L.	<D.L.	<D.L.	15.69	9.34
HR 18	Getino	<D.L.	74.58	<D.L.	33.03	66	88.23	58.84	546.17	<D.L.	<D.L.	<D.L.	<D.L.	10.91	<D.L.
HR 19	Getino	<D.L.	71.99	<D.L.	36.53	42.29	83.57	51.69	379.41	<D.L.	<D.L.	<D.L.	<D.L.	16.39	<D.L.
HR 20	Getino	<D.L.	122.81	27.22	82.21	91.11	159.54	82.86	563.68	<D.L.	<D.L.	<D.L.	<D.L.	19.28	<D.L.
HR 21	Getino	<D.L.	82	24.92	52.02	78.8	118.06	66.47	642.32	<D.L.	<D.L.	<D.L.	<D.L.	20.55	<D.L.
HR 22	Getino	<D.L.	80.17	12.98	60.46	80.1	120.62	65.09	456.23	<D.L.	<D.L.	<D.L.	<D.L.	16.4	10.4
HR 23	Getino	<D.L.	97.19	16.73	54.17	57.57	91.99	70.15	482.07	<D.L.	<D.L.	<D.L.	<D.L.	10.88	10.05
HR 24	Getino	<D.L.	108.45	<D.L.	50.4	62.7	100.13	77.23	494.97	<D.L.	<D.L.	<D.L.	<D.L.	9.74	<D.L.
HR 25	Getino	<D.L.	103.06	16.63	72.28	82.77	130.69	80.52	513.15	<D.L.	<D.L.	<D.L.	<D.L.	11.61	9.9

Sample	Formation	S	Sc	V	Cr	Co	Ni	Cu	Zn	As	Se	Rb	Sr	Zr	Mo
HR 26	Getino	<D.L.	<D.L.	122.2	129.5	<D.L.	<D.L.	18.29	7.54	50.96	<D.L.	96.83	426.6	341.58	<D.L.
HR 27	Getino	<D.L.	<D.L.	<D.L.	107.79	<D.L.	<D.L.	34.13	<D.L.	107.38	3.23	119.43	426.87	157.22	<D.L.
HR 28	Getino	<D.L.	<D.L.	177.36	84.01	<D.L.	<D.L.	28.93	<D.L.	99.95	<D.L.	113.86	415.12	165.13	<D.L.
HR 29	Getino	<D.L.	<D.L.	94.2	76.28	<D.L.	<D.L.	33.99	<D.L.	58.33	<D.L.	108.74	407.74	168.52	<D.L.
HR 30	Getino	<D.L.	<D.L.	204.16	95.43	407.63	<D.L.	124.36	<D.L.	184.57	<D.L.	100.78	368.02	165.72	6.22
HR 31	Getino	<D.L.	<D.L.	98.31	50.33	<D.L.	<D.L.	21.45	<D.L.	108.46	<D.L.	112.39	367.41	164.29	5.76
HR 32	Bernesga Mb.	<D.L.	<D.L.	<D.L.	107.98	<D.L.	<D.L.	<D.L.	<D.L.	62.41	<D.L.	119.54	419.18	197.15	<D.L.
HR 33	Bernesga Mb.	<D.L.	<D.L.	162.47	92.87	<D.L.	79.86	47.2	<D.L.	371.49	3.45	97.24	390.19	167.95	<D.L.
HR 34	Bernesga Mb.	<D.L.	<D.L.	97.8	36.56	<D.L.	66.17	27.37	<D.L.	446.76	4.76	88.79	311.58	150.66	<D.L.
HR 35	Bernesga Mb.	<D.L.	<D.L.	501.76	<D.L.	<D.L.	312.81	60.3	<D.L.	924.35	7.48	49.58	242.34	256.64	<D.L.
HR 36	Bernesga Mb.	645.72	<D.L.	<D.L.	76.38	<D.L.	44.09	18.24	<D.L.	315.68	<D.L.	104.13	371.44	166.68	<D.L.
HR 37	Bernesga Mb.	1061.9	<D.L.	156.69	31.38	<D.L.	132.54	92.82	<D.L.	766.87	7.19	53.66	303.96	116.3	9.86
HR 38	Bernesga Mb.	<D.L.	<D.L.	178.47	25.94	<D.L.	<D.L.	172.99	<D.L.	944.99	8.95	47.16	232.64	110.34	11.76
HR 39	Bernesga Mb.	<D.L.	<D.L.	255.75	58.21	<D.L.	77.39	49.92	<D.L.	374.1	<D.L.	85.74	341.49	153.88	7.41
HR 40	Bernesga Mb.	<D.L.	<D.L.	198.5	99.72	<D.L.	<D.L.	36.53	<D.L.	172.48	<D.L.	119.98	355.97	152.08	<D.L.
HR 41	Bernesga Mb.	<D.L.	<D.L.	236.35	63.78	<D.L.	<D.L.	132.19	<D.L.	548.71	5.06	67	295.39	136.07	6.6
HR 42	Bernesga Mb.	536.49	<D.L.	187.83	36.09	<D.L.	<D.L.	78.01	<D.L.	465.69	<D.L.	81.26	318.85	137.06	11.8
HR 43	Bernesga Mb.	<D.L.	<D.L.	135.32	42.54	<D.L.	<D.L.	80.53	<D.L.	500.97	6.33	82.81	268.39	136.46	11.76
HR 44	Bernesga Mb.	<D.L.	<D.L.	147.21	38.31	<D.L.	<D.L.	109.32	<D.L.	409.37	<D.L.	72.47	276.97	120.56	9.38
HR 45	Bernesga Mb.	<D.L.	<D.L.	104.43	39	<D.L.	<D.L.	31.46	<D.L.	143.06	<D.L.	92.05	280.94	147.46	6.05
HR 46	Bernesga Mb.	<D.L.	<D.L.	62.26	28.02	782.25	<D.L.	57.68	<D.L.	172.73	<D.L.	84.61	252.17	124.98	<D.L.
HR 47	Bernesga Mb.	<D.L.	<D.L.	228.97	116.15	1480.66	<D.L.	93.01	<D.L.	339.53	<D.L.	115.19	346.11	147.09	11.54
HR 48	Bernesga Mb.	<D.L.	<D.L.	105.7	78.89	920.88	<D.L.	62.46	<D.L.	192.58	<D.L.	99.02	299.26	164.72	9.38
HR 49	Bernesga Mb.	<D.L.	<D.L.	143.99	81.75	2027.28	<D.L.	85.53	<D.L.	239.56	<D.L.	100.5	290.43	131.47	11.96
HR 50	Bernesga Mb.	<D.L.	<D.L.	176.03	284.61	3367.51	<D.L.	134.4	<D.L.	370.99	5.05	87.42	267.8	120.38	8.68

Sample	Formation	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba	W	Au	Hg	Pb	Th	U
HR 26	Getino	<D.L.	67.17	<D.L.	40.08	37.58	57.58	46.82	378.32	<D.L.	<D.L.	<D.L.	<D.L.	16.51	<D.L.
HR 27	Getino	<D.L.	85.68	<D.L.	51.8	53.06	83.41	62.19	477.72	<D.L.	<D.L.	<D.L.	<D.L.	17.79	<D.L.
HR 28	Getino	<D.L.	88.08	13.51	43.38	61.14	96.19	60.65	504.53	<D.L.	<D.L.	<D.L.	<D.L.	15.8	<D.L.
HR 29	Getino	<D.L.	77.82	<D.L.	39.4	32.74	59.36	58.76	483.67	<D.L.	<D.L.	<D.L.	<D.L.	16.14	<D.L.
HR 30	Getino	15.62	175.37	19.49	93.03	110.64	204.52	120.07	804.19	<D.L.	<D.L.	<D.L.	<D.L.	8.88	<D.L.
HR 31	Getino	<D.L.	142.44	29.9	96.04	93.63	190.06	106.32	691.83	<D.L.	<D.L.	<D.L.	215.83	19.22	<D.L.
HR 32	Bernesga Mb.	<D.L.	70.41	<D.L.	47.01	40.62	58.37	56.02	482.48	<D.L.	<D.L.	<D.L.	17.32	18.31	<D.L.
HR 33	Bernesga Mb.	<D.L.	175	21.97	100.36	104.85	189.38	119.29	775.53	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	12.81
HR 34	Bernesga Mb.	<D.L.	236.79	44.85	132.8	151.07	294.94	165.08	915.84	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 35	Bernesga Mb.	<D.L.	439.85	38.37	180.65	188.52	340.48	264.29	1355.36	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 36	Bernesga Mb.	<D.L.	176.18	33.66	126.2	116.66	240.54	129.91	782.43	<D.L.	<D.L.	8.25	<D.L.	<D.L.	<D.L.
HR 37	Bernesga Mb.	31.41	405.18	59.15	228.23	276.57	504.65	297.28	2114.61	<D.L.	<D.L.	<D.L.	29.31	<D.L.	<D.L.
HR 38	Bernesga Mb.	<D.L.	371.26	49.83	162.13	252.06	291.02	199.51	1127.74	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 39	Bernesga Mb.	<D.L.	135.4	<D.L.	81.66	84.71	115.32	77.54	536.3	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 40	Bernesga Mb.	<D.L.	111.4	<D.L.	81.3	52.28	93.17	74.83	575.02	<D.L.	<D.L.	<D.L.	<D.L.	11.65	<D.L.
HR 41	Bernesga Mb.	25.91	288.19	37.97	159.58	219.73	353.09	195.74	1045.24	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 42	Bernesga Mb.	<D.L.	279.87	54.68	174.9	192.22	369.95	190.47	1149.42	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 43	Bernesga Mb.	<D.L.	249.53	29.33	104.67	141.32	250.2	147.02	850.51	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 44	Bernesga Mb.	<D.L.	287.59	33.97	164.82	187.58	308.85	175.73	940.69	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 45	Bernesga Mb.	<D.L.	168.06	25.27	124.19	110.67	211.4	121.41	727.34	<D.L.	<D.L.	10.95	<D.L.	<D.L.	<D.L.
HR 46	Bernesga Mb.	<D.L.	210.12	<D.L.	71.58	91.3	140.52	100.11	610.66	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 47	Bernesga Mb.	<D.L.	82.91	<D.L.	<D.L.	30.04	<D.L.	18.58	306.29	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 48	Bernesga Mb.	<D.L.	87.66	<D.L.	<D.L.	46.32	<D.L.	47.03	477.39	44.27	<D.L.	<D.L.	<D.L.	7.95	<D.L.
HR 49	Bernesga Mb.	<D.L.	117.11	<D.L.	<D.L.	<D.L.	<D.L.	29.49	370.3	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 50	Bernesga Mb.	<D.L.	147.13	<D.L.	63.78	69.74	83.52	73.43	506.59	53.52	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.

Sample	Formation	S	Sc	V	Cr	Co	Ni	Cu	Zn	As	Se	Rb	Sr	Zr	Mo
HR 51	Bernesga Mb.	<D.L.	<D.L.	183.33	33.14	<D.L.	<D.L.	91.07	<D.L.	485.44	<D.L.	61.06	241.8	116.33	7.81
HR 52	Bernesga Mb.	<D.L.	<D.L.	153.62	73.23	<D.L.	<D.L.	35.15	<D.L.	298.62	<D.L.	108.1	336.43	161.21	4.98
HR 53	Bernesga Mb.	546.62	<D.L.	146.68	81.46	<D.L.	45.6	23.01	<D.L.	56.58	<D.L.	116.58	386.68	209.01	<D.L.
HR 54	Bernesga Mb.	403.04	<D.L.	189.55	90.38	<D.L.	57.5	20.25	<D.L.	85.14	<D.L.	128.37	327.28	175.47	<D.L.
HR 55	Bernesga Mb.	410.99	<D.L.	269.81	117.74	<D.L.	42	25.79	<D.L.	87.53	<D.L.	139.17	367.24	182.83	<D.L.
HR 56	Bernesga Mb.	576.86	<D.L.	174.38	28.74	<D.L.	112.4	30.95	<D.L.	146.23	3.81	103.23	341.72	173.87	<D.L.
HR 57	Bernesga Mb.	1113.19	<D.L.	223.85	45.49	<D.L.	162.25	40.9	<D.L.	196.82	<D.L.	102.38	379.65	149.5	<D.L.
HR 58	Bernesga Mb.	<D.L.	<D.L.	<D.L.	142.51	<D.L.	<D.L.	<D.L.	12.01	51.6	<D.L.	131.28	413.45	192.14	<D.L.
HR 59	Bernesga Mb.	<D.L.	<D.L.	67.35	90.12	<D.L.	35.96	<D.L.	12.9	18.23	<D.L.	139.74	378.36	170.37	<D.L.
HR 60	Bernesga Mb.	<D.L.	<D.L.	105.25	53.82	<D.L.	<D.L.	26.62	<D.L.	69.41	<D.L.	107.62	377.51	163.62	<D.L.
HR 61	Bernesga Mb.	426.38	<D.L.	86.89	136.02	<D.L.	<D.L.	19.77	11.97	39.91	<D.L.	132.29	411.37	174.52	<D.L.
HR 62	Bernesga Mb.	<D.L.	<D.L.	103.22	97.15	<D.L.	<D.L.	21.58	9.35	92.27	3.67	140.32	436.34	181.5	<D.L.
HR 63	Bernesga Mb.	<D.L.	<D.L.	90.08	70.65	<D.L.	43.78	<D.L.	13.07	24.87	<D.L.	126	359.16	182.3	<D.L.
HR 64	Bernesga Mb.	<D.L.	<D.L.	<D.L.	39.06	<D.L.	<D.L.	109.32	<D.L.	320.61	<D.L.	36.32	207.08	99.2	<D.L.
HR 65	Bernesga Mb.	1591.01	<D.L.	<D.L.	51.48	<D.L.	460.54	139.38	<D.L.	485.84	<D.L.	18.12	156.72	56.34	<D.L.
HR 66	Bernesga Mb.	632.06	<D.L.	<D.L.	60.66	<D.L.	154.67	118.47	<D.L.	156.15	<D.L.	77.21	282.32	144.63	<D.L.
HR 67	Bernesga Mb.	517.11	<D.L.	123.47	90.8	<D.L.	<D.L.	38.01	<D.L.	151.51	5.61	132.3	410.18	187.62	<D.L.
HR 68	Bernesga Mb.	397.72	<D.L.	102.55	55.42	<D.L.	<D.L.	41.04	<D.L.	117.98	<D.L.	118.84	270.25	147.5	<D.L.
HR 69	Bernesga Mb.	<D.L.	<D.L.	106.15	52.47	<D.L.	88.43	43.77	<D.L.	113.94	3.92	96.33	272.18	224.11	<D.L.
HR 70	Bernesga Mb.	<D.L.	<D.L.	150.04	63.43	<D.L.	<D.L.	20.87	<D.L.	46.8	<D.L.	118.9	350.47	180.19	<D.L.
HR 71	Bernesga Mb.	415.81	<D.L.	84.5	<D.L.	<D.L.	70.6	75.35	<D.L.	148.68	5.34	60.34	239.27	210.52	<D.L.
HR 72	Bernesga Mb.	510.96	<D.L.	155.37	<D.L.	<D.L.	83.28	76.32	<D.L.	162.46	<D.L.	73.12	245.21	252.73	8.87
HR 73	Bernesga Mb.	651.83	<D.L.	260.63	89.51	<D.L.	89.98	36.22	<D.L.	109.48	3.16	110.44	299.26	209.14	<D.L.
HR 74	Bernesga Mb.	265.64	<D.L.	200.35	63.34	<D.L.	44.03	23.06	<D.L.	75.8	<D.L.	107.46	280.83	217.67	9.66
HR 75	Bernesga Mb.	<D.L.	<D.L.	161.97	48.91	<D.L.	<D.L.	<D.L.	<D.L.	52.84	<D.L.	117.35	304.16	193.99	11.5

Sample	Formation	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba	W	Au	Hg	Pb	Th	U
HR 51	Bernesga Mb.	<D.L.	330.18	46.41	163.93	233.48	375.21	232.48	1217.58	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 52	Bernesga Mb.	16.43	154.41	31.38	105.69	111.58	203.7	123.42	762.39	<D.L.	<D.L.	<D.L.	<D.L.	10.71	<D.L.
HR 53	Bernesga Mb.	<D.L.	107.35	13.33	70.69	67.83	120.76	81.45	600.15	<D.L.	<D.L.	<D.L.	<D.L.	14.68	<D.L.
HR 54	Bernesga Mb.	<D.L.	131.01	14.02	91.91	97.33	147.31	97.36	695.51	<D.L.	<D.L.	<D.L.	<D.L.	13.55	13.13
HR 55	Bernesga Mb.	<D.L.	144.78	20.6	87.29	70.2	160.66	96.6	747.83	<D.L.	<D.L.	6.84	<D.L.	16.23	9.84
HR 56	Bernesga Mb.	23.69	230.15	37.89	145.38	149.33	272.94	165.91	950.26	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 57	Bernesga Mb.	<D.L.	183.62	29.97	123.97	141.17	240.72	137.94	888.27	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 58	Bernesga Mb.	14.2	104.63	19.31	61.68	73.99	114.34	78.88	589.47	<D.L.	<D.L.	<D.L.	<D.L.	20.36	<D.L.
HR 59	Bernesga Mb.	<D.L.	93.7	16.3	63.6	65.11	139.56	70.17	539.59	<D.L.	<D.L.	<D.L.	<D.L.	18.78	<D.L.
HR 60	Bernesga Mb.	<D.L.	136.71	18.24	60.04	76.26	151.12	88.13	619.63	<D.L.	<D.L.	<D.L.	<D.L.	9.69	10.71
HR 61	Bernesga Mb.	<D.L.	80.88	<D.L.	42.47	59.16	67.63	63.04	519.41	<D.L.	<D.L.	<D.L.	<D.L.	23.48	<D.L.
HR 62	Bernesga Mb.	<D.L.	112.09	18.98	76.11	85.46	151.9	84.78	656.4	<D.L.	<D.L.	<D.L.	<D.L.	22.77	<D.L.
HR 63	Bernesga Mb.	<D.L.	161.52	18.93	102.46	87.31	190.83	106.63	752.4	<D.L.	<D.L.	<D.L.	<D.L.	22.89	<D.L.
HR 64	Bernesga Mb.	<D.L.	345.43	59.4	215.53	166.67	323.7	194.91	984.88	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 65	Bernesga Mb.	34.54	369.51	42.46	189.87	156.65	335.36	164.48	744.68	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 66	Bernesga Mb.	26.4	290.83	49.71	190.57	235.49	382.27	216.2	1192.5	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 67	Bernesga Mb.	<D.L.	68.79	<D.L.	<D.L.	<D.L.	56.36	43.73	412.75	<D.L.	<D.L.	8.77	<D.L.	<D.L.	<D.L.
HR 68	Bernesga Mb.	<D.L.	119.91	21.57	87.18	88.08	121.58	84.04	605.31	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 69	Bernesga Mb.	<D.L.	89.14	<D.L.	<D.L.	32.45	81.23	44.94	412.19	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 70	Bernesga Mb.	<D.L.	159.73	23.41	101.3	90.03	193.2	110.84	725.29	<D.L.	<D.L.	<D.L.	<D.L.	13.43	<D.L.
HR 71	Bernesga Mb.	<D.L.	243.7	29.3	132.21	159.22	248.64	165.19	904.53	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 72	Bernesga Mb.	<D.L.	167.92	19.38	76.34	103.85	197.56	103.78	664.34	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 73	Bernesga Mb.	15.52	160.68	29.09	108.45	97.1	195.19	124.93	777.75	<D.L.	<D.L.	7.23	<D.L.	10.43	<D.L.
HR 74	Bernesga Mb.	<D.L.	162.26	28.33	91.32	106.7	205.48	113.41	692.31	<D.L.	<D.L.	<D.L.	116.73	15.41	<D.L.
HR 75	Bernesga Mb.	<D.L.	132.1	<D.L.	94.48	109.09	165.28	98.08	661.61	<D.L.	<D.L.	<D.L.	<D.L.	15.43	12.07

Sample	Formation	S	Sc	V	Cr	Co	Ni	Cu	Zn	As	Se	Rb	Sr	Zr	Mo
HR 76	Bernesga Mb.	467.65	<D.L.	298.79	133.93	<D.L.	76.82	41.36	<D.L.	72.67	<D.L.	127.4	341.17	203.8	7.27
HR 77	Bernesga Mb.	234.2	<D.L.	196.2	64.3	<D.L.	<D.L.	20.36	<D.L.	36.16	<D.L.	110.95	309.29	218.88	9.47
HR 78	Bernesga Mb.	<D.L.	<D.L.	225.27	67.09	<D.L.	<D.L.	<D.L.	<D.L.	11.44	<D.L.	122.29	320.18	185.59	<D.L.
HR 79	Bernesga Mb.	<D.L.	<D.L.	332.4	100.51	<D.L.	<D.L.	19.88	<D.L.	19.96	<D.L.	108.33	366.33	228.43	<D.L.
HR 80	Bernesga Mb.	<D.L.	<D.L.	423.24	55.77	<D.L.	229.8	146.21	<D.L.	566.12	5.5	52.06	218.04	152.81	9.44
HR 81	Bernesga Mb.	316.78	<D.L.	285.28	110.34	<D.L.	<D.L.	24.86	<D.L.	177.27	4.14	133.25	357.9	242.19	21.53
HR 82	Bernesga Mb.	<D.L.	<D.L.	347.37	111.42	154.17	<D.L.	40.23	<D.L.	171.3	5.12	110.89	323.57	174.77	14.26
HR 83	Bernesga Mb.	595.81	<D.L.	405.86	117.57	<D.L.	207.91	36.61	<D.L.	226.76	<D.L.	107.75	363.62	175.64	9.66
HR 84	Bernesga Mb.	1090.96	<D.L.	124.75	43.34	<D.L.	587.29	117.5	<D.L.	212.99	10.51	29.49	135.5	110.9	<D.L.
HR 85	Bernesga Mb.	<D.L.	<D.L.	187.05	63.44	<D.L.	<D.L.	39.84	<D.L.	95.57	<D.L.	115.7	262.25	170.76	<D.L.
HR 86	Bernesga Mb.	<D.L.	<D.L.	297.83	41.27	<D.L.	257.48	87.04	<D.L.	188.08	4.41	73.41	220.75	185.79	<D.L.
HR 87	Bernesga Mb.	448.71	<D.L.	292.32	99.81	<D.L.	59.61	56.38	<D.L.	71.7	3.81	118.9	298.65	195.88	<D.L.
HR 88	Bernesga Mb.	222.5	<D.L.	85.39	30.95	<D.L.	<D.L.	<D.L.	<D.L.	20.18	<D.L.	110.8	262.4	192.62	<D.L.
HR 89	Bernesga Mb.	592.47	<D.L.	307.69	133.8	<D.L.	98.62	90.41	<D.L.	93.53	3.79	107.73	298.1	200.94	<D.L.
HR 90	Bernesga Mb.	738.1	<D.L.	307.83	104.72	<D.L.	83.29	78.44	<D.L.	332.62	6.06	100.41	278.42	192.64	12.1
HR 91	Bernesga Mb.	1060.61	<D.L.	638.83	48.28	<D.L.	283.09	91.12	<D.L.	417.68	<D.L.	26.22	142.76	143.48	<D.L.
HR 92	Bernesga Mb.	1069.8	<D.L.	279.93	49.44	<D.L.	208.07	105.12	<D.L.	127.98	<D.L.	107.51	244.84	192.92	<D.L.
HR 93	Bernesga Mb.	677.24	<D.L.	331.03	123.73	<D.L.	69.51	31.36	<D.L.	95.82	<D.L.	127.58	339.96	258	<D.L.
HR 94	Bernesga Mb.	<D.L.	<D.L.	186.52	116.75	<D.L.	<D.L.	19.48	<D.L.	40.79	<D.L.	128.4	263.52	213	<D.L.
HR 95	Bernesga Mb.	585.02	<D.L.	466.24	77.67	<D.L.	95.92	72.17	<D.L.	164.07	<D.L.	91.8	225.89	177.73	<D.L.
HR 96	Bernesga Mb.	953.46	<D.L.	172.92	<D.L.	<D.L.	261.29	173.41	<D.L.	197.66	5.52	49.78	142.66	146.55	<D.L.
HR 97	Bernesga Mb.	<D.L.	<D.L.	206.35	83.27	<D.L.	<D.L.	28.5	<D.L.	55.45	<D.L.	124.44	263.34	195.86	<D.L.
HR 98	Bernesga Mb.	<D.L.	<D.L.	175.78	87.41	<D.L.	64.65	23.53	<D.L.	37.5	<D.L.	121.84	237.61	205.74	<D.L.
HR 99	Bernesga Mb.	<D.L.	<D.L.	168.73	48.77	<D.L.	98.57	96.36	<D.L.	105.56	4.58	94	220.69	185.81	<D.L.
HR 100	Bernesga Mb.	351.86	<D.L.	137.43	85.43	<D.L.	89.61	51.59	<D.L.	71.54	<D.L.	118.8	241.46	189.81	<D.L.

Sample	Formation	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba	W	Au	Hg	Pb	Th	U
HR 76	Bernesga Mb.	<D.L.	119.55	16.78	79.88	83.23	123.05	94.29	658	<D.L.	<D.L.	<D.L.	<D.L.	13.62	10.08
HR 77	Bernesga Mb.	<D.L.	116.09	23.59	58.09	84.26	135.6	87.44	635.81	<D.L.	<D.L.	<D.L.	<D.L.	16.13	11.28
HR 78	Bernesga Mb.	<D.L.	114.84	26.37	65.42	99.29	144.46	79.67	559.92	<D.L.	<D.L.	<D.L.	8.65	21.4	<D.L.
HR 79	Bernesga Mb.	<D.L.	106.04	15.62	61.45	44.53	103.84	77.18	568.29	<D.L.	<D.L.	9.98	<D.L.	23.11	14.61
HR 80	Bernesga Mb.	35.09	371.78	72.68	215.01	245.34	481.01	257.42	1266.25	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 81	Bernesga Mb.	<D.L.	103.68	12.7	75.92	83.71	126.21	79.43	611.9	<D.L.	<D.L.	<D.L.	<D.L.	25.27	10.4
HR 82	Bernesga Mb.	<D.L.	147.82	21.97	95.41	101.09	198.24	105.14	702.24	<D.L.	<D.L.	<D.L.	<D.L.	12.87	12.03
HR 83	Bernesga Mb.	<D.L.	210.09	24.37	124.46	124.54	197.49	139.41	878.51	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	13.24
HR 84	Bernesga Mb.	45.58	613.83	88.06	398.22	435.43	793.44	450.95	2123.87	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 85	Bernesga Mb.	<D.L.	193.46	31.96	123.58	151.15	254.52	140.39	871.35	<D.L.	<D.L.	<D.L.	30.37	6.73	<D.L.
HR 86	Bernesga Mb.	23.32	328.51	71.88	187.9	235.8	435.14	259.32	1314.53	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 87	Bernesga Mb.	<D.L.	146.15	19.61	101.77	87.87	168.46	100.01	699.55	<D.L.	<D.L.	<D.L.	<D.L.	12.94	<D.L.
HR 88	Bernesga Mb.	<D.L.	198.98	33.37	68.18	118.92	209.76	110.06	686.53	<D.L.	<D.L.	<D.L.	<D.L.	15.91	<D.L.
HR 89	Bernesga Mb.	<D.L.	191.91	18.91	97.09	111.82	211.09	139.53	864.27	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	16.21
HR 90	Bernesga Mb.	<D.L.	126.03	<D.L.	56.98	69.62	129.4	76.06	607.39	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	12.22
HR 91	Bernesga Mb.	28.99	350.64	66.32	198.03	254.86	459.39	245.87	1319.14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 92	Bernesga Mb.	<D.L.	169.71	29.01	102.49	109.48	211.26	140.66	862.04	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 93	Bernesga Mb.	<D.L.	128.87	15.26	87.05	78.01	143.63	85.51	692.07	<D.L.	<D.L.	<D.L.	164.62	17.83	12.91
HR 94	Bernesga Mb.	<D.L.	80.91	<D.L.	48.47	36.96	90.4	62.12	501.9	<D.L.	<D.L.	<D.L.	<D.L.	15.69	<D.L.
HR 95	Bernesga Mb.	<D.L.	156.48	28.88	93.31	95.57	181.13	119.98	707.15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 96	Bernesga Mb.	28.08	320.27	49.91	178.71	153.47	330.38	212.41	1055.45	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 97	Bernesga Mb.	<D.L.	118.72	30.48	77.31	83.72	151.19	98.46	620.09	<D.L.	<D.L.	7.26	<D.L.	7.75	10.53
HR 98	Bernesga Mb.	<D.L.	120.01	<D.L.	52.67	82.15	137.34	90.51	687.38	<D.L.	<D.L.	<D.L.	25.73	11.6	10.67
HR 99	Bernesga Mb.	<D.L.	210.54	19.63	130.11	120.1	238.22	139.22	879.2	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 100	Bernesga Mb.	<D.L.	135.93	24.18	81.89	85.04	159.95	94.99	666.48	<D.L.	<D.L.	<D.L.	<D.L.	9.25	<D.L.

Sample	Formation	S	Sc	V	Cr	Co	Ni	Cu	Zn	As	Se	Rb	Sr	Zr	Mo
HR 101	Bernesga Mb.	<D.L.	<D.L.	117.7	54.87	<D.L.	106.33	106.38	<D.L.	87.47	<D.L.	101.74	203.81	177.67	<D.L.
HR 102	Bernesga Mb.	<D.L.	<D.L.	125.33	60.25	<D.L.	313.63	196.61	<D.L.	177.09	<D.L.	48.49	156.98	121.01	<D.L.
HR 103	Bernesga Mb.	<D.L.	<D.L.	142.62	46.56	<D.L.	<D.L.	120.72	<D.L.	142.64	<D.L.	76.94	199.07	200.69	<D.L.
HR 104	Bernesga Mb.	<D.L.	<D.L.	40.56	20.96	<D.L.	<D.L.	47.62	<D.L.	89.95	<D.L.	81.15	176.58	205.68	<D.L.
HR 105	Bernesga Mb.	<D.L.	<D.L.	150.7	48.57	<D.L.	56.01	64.82	<D.L.	89.07	<D.L.	108.3	220.94	216.86	<D.L.
HR 106	Bernesga Mb.	530.32	<D.L.	225.58	78.03	<D.L.	80	62.65	<D.L.	141.23	<D.L.	108.68	244.8	191.76	<D.L.
HR 107	Bernesga Mb.	573.6	<D.L.	201.74	83.67	<D.L.	75.22	50.36	<D.L.	96.95	<D.L.	108.62	268.34	197.08	<D.L.
HR 108	Bernesga Mb.	668.52	<D.L.	290.43	105.48	<D.L.	98.04	40.29	<D.L.	123.63	<D.L.	126.27	257.34	241.6	<D.L.
HR 109	Bernesga Mb.	820.88	<D.L.	267.61	101.15	<D.L.	146.26	74.34	<D.L.	107.24	<D.L.	105.51	241.99	211.94	<D.L.
HR 110	Bernesga Mb.	941.36	<D.L.	310.84	79.88	<D.L.	134.61	84.72	<D.L.	133.54	<D.L.	99.11	245.05	176.68	<D.L.
HR 111	Bernesga Mb.	693.38	<D.L.	300.8	118.16	<D.L.	112.63	73.58	<D.L.	116.84	<D.L.	113.24	249.4	189.21	<D.L.
HR 112	Bernesga Mb.	421.57	<D.L.	149.44	49.46	<D.L.	60.57	96.91	<D.L.	117.96	<D.L.	89.6	196.19	182.98	<D.L.
HR 113	Bernesga Mb.	1052.98	<D.L.	400.91	<D.L.	<D.L.	204.54	90.13	<D.L.	370.82	<D.L.	95.14	253.45	178.83	<D.L.
HR 114	Bernesga Mb.	<D.L.	<D.L.	183	53.22	<D.L.	98.35	43.71	<D.L.	121.85	<D.L.	94.17	218.1	173.88	<D.L.
HR 115	Bernesga Mb.	462	<D.L.	297.5	161.7	<D.L.	43	26.36	8.75	31.45	<D.L.	151.13	275.12	216.65	<D.L.
HR 116	Bernesga Mb.	1015.3	<D.L.	233.87	88.35	<D.L.	259.82	121.97	<D.L.	180.63	5.1	74.97	200.18	178.63	<D.L.
HR 117	Bernesga Mb.	<D.L.	<D.L.	149.95	26.16	<D.L.	138.72	93.97	<D.L.	319.22	<D.L.	58.64	187.55	157.04	<D.L.
HR 118	Bernesga Mb.	261.63	<D.L.	211.15	100.75	<D.L.	39.03	27.7	<D.L.	32.39	<D.L.	124.29	251.19	194.42	<D.L.
HR 119	Bernesga Mb.	<D.L.	<D.L.	253.68	44.15	<D.L.	232.41	75.24	<D.L.	335.63	6.19	58.99	171.88	133.16	<D.L.
HR 120	Bernesga Mb.	<D.L.	<D.L.	319.31	57.28	<D.L.	66.51	33.35	<D.L.	193.37	4.61	70.68	208.07	167.03	4.76
HR 121	Bernesga Mb.	<D.L.	<D.L.	136.89	55.44	<D.L.	<D.L.	27.11	<D.L.	59.22	<D.L.	102.44	221.09	189.83	7.05
HR 122	Bernesga Mb.	499.41	21.36	256.57	60.38	<D.L.	54.67	83.75	<D.L.	92.71	5.66	107.01	290.52	211.73	4.54
HR 123	Bernesga Mb.	<D.L.	<D.L.	237.28	97.49	<D.L.	46.88	32.61	<D.L.	46.52	<D.L.	123.13	287.64	208.59	5.95
HR 124	Bernesga Mb.	<D.L.	<D.L.	236.22	43.15	<D.L.	89.35	75.5	<D.L.	200.17	4.15	71.19	192.29	211.26	7.39
HR 125	Bernesga Mb.	<D.L.	<D.L.	230.27	76.49	<D.L.	<D.L.	55.45	<D.L.	135.7	5.92	111.79	254.94	192.54	24.18

Sample	Formation	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba	W	Au	Hg	Pb	Th	U
HR 101	Bernesga Mb.	23.38	247.01	43.86	149.63	161.06	335.09	182.49	1021.36	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 102	Bernesga Mb.	25.92	437.68	80.05	305.1	315.99	570.02	317.72	1658.48	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 103	Bernesga Mb.	<D.L.	138.87	<D.L.	53.58	63.54	96.38	90.32	563.99	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 104	Bernesga Mb.	<D.L.	252.05	45.33	154.89	162.35	303.44	154.05	851.5	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 105	Bernesga Mb.	<D.L.	140.31	36.84	67.99	108.91	178.71	93.23	653.44	<D.L.	<D.L.	<D.L.	<D.L.	8.38	<D.L.
HR 106	Bernesga Mb.	<D.L.	157.04	29.69	101.19	105.13	200.86	115.54	774.14	<D.L.	<D.L.	<D.L.	30.3	<D.L.	<D.L.
HR 107	Bernesga Mb.	<D.L.	192.23	18.16	104.31	92.43	212.5	131.27	811.73	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 108	Bernesga Mb.	<D.L.	105.3	13.44	65.8	57.26	102.62	73.46	592.83	<D.L.	<D.L.	<D.L.	48.84	11.78	11.2
HR 109	Bernesga Mb.	<D.L.	171.94	24.27	101.24	116.58	190.87	123.24	807.17	<D.L.	<D.L.	9.67	<D.L.	<D.L.	<D.L.
HR 110	Bernesga Mb.	<D.L.	199.18	31.48	113.6	117.1	219.63	142.29	898.8	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	11.54
HR 111	Bernesga Mb.	<D.L.	184.58	21.89	92.66	103.79	207.03	121.88	774.29	<D.L.	<D.L.	10.31	<D.L.	7.85	<D.L.
HR 112	Bernesga Mb.	<D.L.	212.38	28.73	138.59	113.93	261.59	151.38	927.01	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 113	Bernesga Mb.	17.89	228.38	45.7	162.62	154.79	333.91	177.48	1028.29	<D.L.	<D.L.	10.87	176.46	<D.L.	<D.L.
HR 114	Bernesga Mb.	<D.L.	235.07	23.28	112.84	124.46	261.59	171.46	985.76	<D.L.	<D.L.	<D.L.	<D.L.	7.48	<D.L.
HR 115	Bernesga Mb.	<D.L.	57.52	<D.L.	23.33	<D.L.	<D.L.	28.1	401.85	<D.L.	<D.L.	<D.L.	97.33	24.04	<D.L.
HR 116	Bernesga Mb.	<D.L.	326.24	50.22	190.52	199.08	376.15	226.57	1262.47	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	13.55
HR 117	Bernesga Mb.	<D.L.	415.38	76.21	179.99	215.89	474.47	252.37	1294.33	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 118	Bernesga Mb.	<D.L.	134.9	28.58	83.49	81.25	182.2	100.94	687.33	<D.L.	<D.L.	<D.L.	24.4	18.98	10.41
HR 119	Bernesga Mb.	24.85	475.5	65.18	255.66	284.08	529.47	308.28	1686.02	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 120	Bernesga Mb.	<D.L.	139.49	14.08	52.97	79.29	160.44	94.01	651.99	<D.L.	<D.L.	9.45	<D.L.	<D.L.	14.54
HR 121	Bernesga Mb.	<D.L.	121.5	17.57	85.21	74.25	157.07	90.88	622.94	<D.L.	<D.L.	<D.L.	<D.L.	14.08	<D.L.
HR 122	Bernesga Mb.	<D.L.	143.5	26.19	94.83	100.84	147.53	102.81	641.73	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 123	Bernesga Mb.	<D.L.	124.82	<D.L.	46.19	77.96	112.75	85.94	627.34	<D.L.	<D.L.	<D.L.	12.29	22.64	15.08
HR 124	Bernesga Mb.	<D.L.	224.92	29.83	124.08	129.4	279.17	168.51	912.64	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 125	Bernesga Mb.	<D.L.	176.96	31.42	112.04	116.95	212.88	128.88	776.04	<D.L.	<D.L.	<D.L.	<D.L.	8.19	<D.L.

Sample	Formation	S	Sc	V	Cr	Co	Ni	Cu	Zn	As	Se	Rb	Sr	Zr	Mo
HR 126	Bernesga Mb.	1795.23	<D.L.	477.94	73.55	<D.L.	307.98	138.15	<D.L.	213.96	7.13	86.37	230.83	165.68	<D.L.
HR 127	Bernesga Mb.	976.65	<D.L.	487.74	89.37	<D.L.	302.37	49.16	<D.L.	325.99	5.83	58.33	179.57	127.93	8.87
HR 128	Bernesga Mb.	<D.L.	<D.L.	158.5	59.77	<D.L.	55.52	68.76	<D.L.	109.25	6.15	117.31	257.17	193	<D.L.
HR 129	Bernesga Mb.	574.88	<D.L.	343.56	75.63	<D.L.	89.88	46.74	<D.L.	104.06	<D.L.	123.57	263.43	204.91	<D.L.
HR 130	Bernesga Mb.	718.43	<D.L.	280.9	77.59	<D.L.	185.69	41.51	<D.L.	86.03	<D.L.	116.58	252.41	213.05	<D.L.
HR 131	Bernesga Mb.	<D.L.	<D.L.	264.32	56.93	<D.L.	102.41	37.67	<D.L.	80.01	<D.L.	110.97	250.98	222.01	<D.L.
HR 132	Bernesga Mb.	<D.L.	<D.L.	361.42	42.11	<D.L.	101.56	69.75	<D.L.	213.6	<D.L.	99.77	211.36	197.9	<D.L.
HR 133	Bernesga Mb.	<D.L.	<D.L.	202.12	92.39	<D.L.	88.62	61.5	<D.L.	174.73	4.85	104.51	254.06	183.93	5.41
HR 134	Bernesga Mb.	<D.L.	<D.L.	126.21	58.6	<D.L.	<D.L.	82.68	<D.L.	270.7	<D.L.	104.17	253.89	178.11	12.4
HR 135	Bernesga Mb.	<D.L.	<D.L.	129.6	68.96	<D.L.	<D.L.	21.17	<D.L.	49.86	<D.L.	127.09	257.88	222.21	<D.L.
HR 136	Bernesga Mb.	2158.98	<D.L.	258.26	96.67	<D.L.	194.68	113.08	<D.L.	118.14	4.67	72.74	179.16	203.34	<D.L.
HR 137	Bernesga Mb.	532.63	<D.L.	194.42	127.88	<D.L.	77.28	42.96	<D.L.	79.77	<D.L.	117.17	271.21	221.01	<D.L.
HR 138	Bernesga Mb.	735.96	<D.L.	353.96	54.86	<D.L.	109.76	39.91	<D.L.	233.14	<D.L.	96.2	249.02	194.1	<D.L.
HR 139	Bernesga Mb.	409.57	<D.L.	238.87	125.55	<D.L.	67.01	37.97	<D.L.	46.22	<D.L.	115.84	306.7	186.69	<D.L.
HR 140	Bernesga Mb.	<D.L.	<D.L.	129.26	70.14	<D.L.	<D.L.	38.32	<D.L.	66.88	<D.L.	128.58	310.64	188.65	<D.L.
HR 141	Bernesga Mb.	<D.L.	<D.L.	200.57	104.23	<D.L.	74.9	51.6	<D.L.	78.73	<D.L.	104.9	245.2	151.32	7.75
HR 142	Bernesga Mb.	222.02	<D.L.	152.06	53.07	<D.L.	<D.L.	24.18	<D.L.	65.58	3.51	80.96	191.05	186.08	9.68
HR 143	Bernesga Mb.	311.66	<D.L.	224.01	36.81	<D.L.	<D.L.	24.81	<D.L.	31.93	<D.L.	113.14	241.21	238.95	<D.L.
HR 144	Bernesga Mb.	<D.L.	<D.L.	240.41	61.39	<D.L.	<D.L.	40.86	<D.L.	47.66	<D.L.	115.4	283.65	196.28	9.37
HR 145	Bernesga Mb.	<D.L.	<D.L.	255.44	82.47	<D.L.	<D.L.	33.84	<D.L.	92.17	4.67	87.82	231.44	180.13	9.84
HR 146	Bernesga Mb.	362.07	<D.L.	252.88	104.33	<D.L.	<D.L.	37.23	<D.L.	38.17	<D.L.	110.73	265.07	196.55	3.87
HR 147	Bernesga Mb.	251.84	<D.L.	199.18	58.54	<D.L.	<D.L.	25.64	<D.L.	55.85	<D.L.	93.76	256.2	166.1	<D.L.
HR 148	Bernesga Mb.	<D.L.	<D.L.	436.5	<D.L.	<D.L.	115.45	56.15	<D.L.	216.52	4.65	68.41	206.77	174.83	4.43
HR 149	Bernesga Mb.	<D.L.	<D.L.	252.58	71.29	<D.L.	<D.L.	81.17	<D.L.	116.09	3.64	109.86	212.73	154.13	<D.L.
HR 150	Bernesga Mb.	<D.L.	<D.L.	87.58	50.53	<D.L.	<D.L.	28.59	<D.L.	36.97	<D.L.	99.69	194.11	188.57	<D.L.

Sample	Formation	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba	W	Au	Hg	Pb	Th	U
HR 126	Bernesga Mb.	35.99	319.13	61.15	224.79	238.45	476.28	263.25	1379.75	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 127	Bernesga Mb.	30.76	369.88	69.37	233.84	253.91	497.82	286.49	1535.44	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 128	Bernesga Mb.	<D.L.	182.54	32.49	109.1	135.33	270.93	142.16	892.46	<D.L.	<D.L.	<D.L.	<D.L.	11.39	<D.L.
HR 129	Bernesga Mb.	24.8	199.27	49.41	137.83	157.87	322.77	162.89	933.78	<D.L.	<D.L.	<D.L.	<D.L.	11.73	<D.L.
HR 130	Bernesga Mb.	15.12	191.64	28.76	105.68	103.37	202.2	126.37	823.44	<D.L.	<D.L.	<D.L.	<D.L.	10.01	11.38
HR 131	Bernesga Mb.	<D.L.	107.32	24.03	73.03	72.96	140.56	85.84	606.98	<D.L.	<D.L.	7.93	<D.L.	7.18	<D.L.
HR 132	Bernesga Mb.	31.88	239.11	51.46	169.13	174.99	339.34	194.66	1067.62	<D.L.	<D.L.	<D.L.	119.61	<D.L.	<D.L.
HR 133	Bernesga Mb.	15.94	219.68	42.53	151.43	141.45	281.13	155.15	926.44	<D.L.	<D.L.	<D.L.	<D.L.	9	<D.L.
HR 134	Bernesga Mb.	<D.L.	168.96	23.1	122.22	121.88	209.25	125.86	778.29	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 135	Bernesga Mb.	<D.L.	122.99	27.6	73.45	72	195.2	97.41	680.96	<D.L.	<D.L.	<D.L.	<D.L.	16.19	<D.L.
HR 136	Bernesga Mb.	<D.L.	217.58	24.12	102.18	81.25	208.88	139.42	881.04	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 137	Bernesga Mb.	<D.L.	122.86	18.28	76.31	66.08	131.12	89.72	645.57	<D.L.	<D.L.	8.18	22.63	18.96	9
HR 138	Bernesga Mb.	<D.L.	166.06	39.3	105.46	110.52	245.4	132.24	811.03	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 139	Bernesga Mb.	<D.L.	118.68	20.58	73.39	66.26	145.48	92.87	667.95	<D.L.	<D.L.	7.52	<D.L.	19.9	<D.L.
HR 140	Bernesga Mb.	<D.L.	120.9	<D.L.	67.63	60.18	116.72	86.22	604.79	<D.L.	<D.L.	<D.L.	<D.L.	17.39	<D.L.
HR 141	Bernesga Mb.	<D.L.	267.85	33.04	152.09	141.08	312.29	184.94	1093.29	<D.L.	12.35	<D.L.	<D.L.	9.75	<D.L.
HR 142	Bernesga Mb.	16.96	119.84	17.39	79.25	89.32	157.98	91.41	574.59	<D.L.	<D.L.	<D.L.	<D.L.	15.91	9.71
HR 143	Bernesga Mb.	<D.L.	79.76	17.55	48.22	45.95	107.25	59.78	560.04	<D.L.	<D.L.	8.13	13.47	21.74	14.15
HR 144	Bernesga Mb.	<D.L.	109.99	18.73	67.59	91.17	148.53	81.56	698.18	<D.L.	<D.L.	<D.L.	<D.L.	15.65	12.43
HR 145	Bernesga Mb.	<D.L.	101.03	14.85	41.84	50.24	129	74.26	524.88	<D.L.	<D.L.	<D.L.	<D.L.	14.09	9.76
HR 146	Bernesga Mb.	<D.L.	131.07	26.28	82.55	63.3	148.47	88.38	614.88	<D.L.	<D.L.	<D.L.	21.59	19.97	<D.L.
HR 147	Bernesga Mb.	<D.L.	163.28	30.05	98.01	116.3	226.55	116.6	676.25	<D.L.	<D.L.	<D.L.	<D.L.	15.78	9.94
HR 148	Bernesga Mb.	23.54	246.62	53.66	135.87	182.11	325.58	198.89	1037.67	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 149	Bernesga Mb.	<D.L.	135.39	16.43	100.21	84.2	165.31	106.41	718.59	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 150	Bernesga Mb.	<D.L.	124.23	18.16	69.05	97.22	170.25	81.33	613.34	<D.L.	<D.L.	<D.L.	<D.L.	12.01	<D.L.

Sample	Formation	S	Sc	V	Cr	Co	Ni	Cu	Zn	As	Se	Rb	Sr	Zr	Mo
HR 151	Bernesga Mb.	<D.L.	<D.L.	136.01	48.37	<D.L.	199.87	150.74	<D.L.	139.98	<D.L.	50.37	136.78	128.75	<D.L.
HR 152	Bernesga Mb.	<D.L.	<D.L.	183.85	95.73	<D.L.	<D.L.	50.59	<D.L.	54.54	<D.L.	118.82	217.02	175.15	<D.L.
HR 153	Bernesga Mb.	<D.L.	<D.L.	227.64	136.97	<D.L.	67.13	31.71	<D.L.	42.24	<D.L.	128.12	234.39	207.33	5.14
HR 154	Bernesga Mb.	1864.93	<D.L.	559.06	54.36	<D.L.	274.72	122.51	<D.L.	162.26	<D.L.	89.18	180.65	154.88	<D.L.
HR 155	Bernesga Mb.	1554.31	<D.L.	299.71	82.8	<D.L.	353.21	120.69	<D.L.	173.43	<D.L.	50.62	131.68	159.38	<D.L.
HR 156	Bernesga Mb.	781.77	<D.L.	364.75	94.53	<D.L.	189.58	56.66	<D.L.	108.4	<D.L.	107.29	169.47	169.22	<D.L.
HR 157	Bernesga Mb.	<D.L.	<D.L.	217.97	87.93	<D.L.	49.44	30.67	<D.L.	49.4	<D.L.	126.69	228.01	181.98	<D.L.
HR 158	Bernesga Mb.	1099.32	<D.L.	350.13	52.47	<D.L.	225.42	83.82	<D.L.	138.64	5.31	93.43	200.04	148.33	10.77
HR 159	Bernesga Mb.	<D.L.	<D.L.	229.2	126.09	<D.L.	55.23	24.55	<D.L.	39.82	<D.L.	134.22	244.2	193.96	<D.L.
HR 160	Bernesga Mb.	<D.L.	<D.L.	205.79	110.88	<D.L.	<D.L.	35.11	<D.L.	58.76	3.92	109.83	248.47	220.19	5.56
HR 161	Bernesga Mb.	<D.L.	<D.L.	177.43	83.01	<D.L.	48.15	24.9	7.87	29.91	<D.L.	112.2	225.4	255.09	<D.L.
HR 162	Bernesga Mb.	279.2	<D.L.	235.74	116.93	<D.L.	53.72	<D.L.	8.23	22.97	<D.L.	119.86	247.05	292.25	<D.L.
HR 163	Bernesga Mb.	<D.L.	<D.L.	210.26	114.6	<D.L.	44.26	26.61	<D.L.	50.43	<D.L.	130.27	232.9	175	5.05
HR 164	Bernesga Mb.	<D.L.	<D.L.	171.41	112.25	<D.L.	<D.L.	17.22	<D.L.	23.17	<D.L.	125.89	231.67	173.96	3.7
HR 165	Bernesga Mb.	2110.52	<D.L.	273.13	<D.L.	<D.L.	392.06	144.88	<D.L.	208.92	<D.L.	54.55	146.98	113.62	<D.L.
HR 166	Bernesga Mb.	<D.L.	<D.L.	262.08	81.06	<D.L.	118.57	26.75	<D.L.	112.97	<D.L.	119.19	232.75	191.67	<D.L.
HR 167	Bernesga Mb.	<D.L.	<D.L.	176.54	86.66	<D.L.	<D.L.	<D.L.	8.22	24.8	<D.L.	126.53	233.15	169.55	<D.L.
HR 168	Bernesga Mb.	301.78	<D.L.	128.32	41.71	<D.L.	<D.L.	<D.L.	<D.L.	99.48	<D.L.	110.06	208.01	149.83	<D.L.
HR 169	Bernesga Mb.	<D.L.	<D.L.	195.72	51.38	<D.L.	205.23	71.03	<D.L.	164.17	3.51	96.76	194.18	136.56	<D.L.
HR 170	Bernesga Mb.	<D.L.	<D.L.	152.72	96.63	<D.L.	<D.L.	<D.L.	11.34	24.58	<D.L.	131.3	233.5	176.5	<D.L.
HR 171	Bernesga Mb.	<D.L.	<D.L.	158.18	87.8	<D.L.	<D.L.	<D.L.	9.53	32.66	<D.L.	137.22	286.41	208.34	<D.L.
HR 172	Bernesga Mb.	<D.L.	<D.L.	171.71	104.55	<D.L.	<D.L.	34.17	<D.L.	99.46	<D.L.	122.46	246.37	155.49	4.09
HR 173	Bernesga Mb.	<D.L.	<D.L.	153.71	92.68	<D.L.	46.61	<D.L.	<D.L.	79.09	<D.L.	126.69	239.31	175.46	<D.L.
HR 174	Bernesga Mb.	949.51	<D.L.	499.1	39.81	<D.L.	218.97	34.58	<D.L.	367.5	4.63	95.25	212.21	137.95	4.57
HR 175	Bernesga Mb.	<D.L.	<D.L.	154.15	110.69	<D.L.	122.49	<D.L.	13.89	20.36	<D.L.	120.91	271.9	205.93	<D.L.

Sample	Formation	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba	W	Au	Hg	Pb	Th	U
HR 151	Bernesga Mb.	29.21	348.44	65.56	215.66	223.18	423.43	248.39	1302.75	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 152	Bernesga Mb.	<D.L.	131.07	18.95	61.88	67.04	190.06	99.12	715.4	<D.L.	<D.L.	<D.L.	<D.L.	10.47	<D.L.
HR 153	Bernesga Mb.	<D.L.	89.13	<D.L.	64.65	40.46	75.02	60.57	533.51	<D.L.	<D.L.	<D.L.	<D.L.	19.1	9.58
HR 154	Bernesga Mb.	21	208.25	40.95	135.03	124.04	271.91	152.62	919.78	<D.L.	<D.L.	<D.L.	38.36	<D.L.	<D.L.
HR 155	Bernesga Mb.	33.68	278.63	48.13	180.21	177.8	369.25	203.6	1102.36	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 156	Bernesga Mb.	<D.L.	147.02	27.57	103.82	83.3	179.56	114.72	738.26	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 157	Bernesga Mb.	<D.L.	109.11	16.17	80.71	71.37	136.01	96.48	644.63	<D.L.	<D.L.	6.48	<D.L.	16.3	<D.L.
HR 158	Bernesga Mb.	17.91	217.83	23.91	140.83	139.05	268.69	156.05	975.82	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 159	Bernesga Mb.	<D.L.	108.23	19.83	64.51	58.54	119.78	79.63	610.71	<D.L.	<D.L.	<D.L.	48.29	19.57	9.16
HR 160	Bernesga Mb.	<D.L.	57.29	<D.L.	33.42	<D.L.	<D.L.	26.29	350.44	<D.L.	<D.L.	9.55	<D.L.	16.23	11.81
HR 161	Bernesga Mb.	<D.L.	62.84	<D.L.	40.05	49.94	72.72	57.53	449.98	<D.L.	<D.L.	<D.L.	<D.L.	19.17	<D.L.
HR 162	Bernesga Mb.	<D.L.	85.99	16.59	52.07	46.03	110.94	65.23	515.95	<D.L.	<D.L.	<D.L.	<D.L.	17.67	<D.L.
HR 163	Bernesga Mb.	<D.L.	101.58	<D.L.	69.74	55.05	111.17	74.54	583.43	<D.L.	<D.L.	<D.L.	<D.L.	15.13	<D.L.
HR 164	Bernesga Mb.	<D.L.	100.74	<D.L.	59.07	63.57	111.01	81.17	568.7	<D.L.	<D.L.	<D.L.	11.23	17.53	<D.L.
HR 165	Bernesga Mb.	31.48	280.22	39.39	174.19	161.17	312.33	182.32	1019.99	<D.L.	<D.L.	14.31	<D.L.	<D.L.	<D.L.
HR 166	Bernesga Mb.	<D.L.	141.97	25.09	106.7	99.54	191.18	115.38	719.28	<D.L.	<D.L.	9.96	<D.L.	6.63	<D.L.
HR 167	Bernesga Mb.	<D.L.	100.44	17.45	77.71	71.06	112.83	80.57	590.31	<D.L.	<D.L.	<D.L.	<D.L.	18.05	<D.L.
HR 168	Bernesga Mb.	<D.L.	210.49	34.75	133.38	142.84	277.3	153.86	907.34	<D.L.	<D.L.	<D.L.	<D.L.	13.42	<D.L.
HR 169	Bernesga Mb.	<D.L.	238.3	35.17	139.05	147.8	268.99	177.88	1010.04	<D.L.	<D.L.	9.53	<D.L.	<D.L.	11.28
HR 170	Bernesga Mb.	<D.L.	96.82	19.61	57.85	73.71	118.18	81.36	589.52	<D.L.	<D.L.	<D.L.	<D.L.	14.65	12.3
HR 171	Bernesga Mb.	<D.L.	79.51	22.93	57.57	51.4	94.32	62.9	478.5	<D.L.	<D.L.	<D.L.	9.67	23.75	9.89
HR 172	Bernesga Mb.	<D.L.	150.17	19.5	86.79	90.84	172.73	96.86	700.42	<D.L.	<D.L.	<D.L.	<D.L.	15.86	<D.L.
HR 173	Bernesga Mb.	<D.L.	145.5	23.99	95.08	89.36	173.81	103.93	686.65	<D.L.	<D.L.	<D.L.	<D.L.	11.63	<D.L.
HR 174	Bernesga Mb.	<D.L.	184.75	37.84	107.97	107.36	222.98	143.05	804.26	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 175	Bernesga Mb.	13.92	150.4	19.22	73.93	82.63	180.5	108.1	706.85	<D.L.	<D.L.	<D.L.	10.61	17.39	<D.L.

Sample	Formation	S	Sc	V	Cr	Co	Ni	Cu	Zn	As	Se	Rb	Sr	Zr	Mo
HR 176	Bernesga Mb.	<D.L.	<D.L.	158.34	117.74	<D.L.	<D.L.	<D.L.	<D.L.	39.21	<D.L.	131.96	259.89	164.83	<D.L.
HR 177	Bernesga Mb.	<D.L.	<D.L.	204.39	143.57	<D.L.	52.59	<D.L.	7.88	30.69	<D.L.	138.69	246.31	164.09	<D.L.
HR 178	Bernesga Mb.	<D.L.	<D.L.	230.66	125.21	<D.L.	<D.L.	<D.L.	12.34	16.24	<D.L.	139.52	251.38	177.21	<D.L.
HR 179	Bernesga Mb.	445.08	<D.L.	281.4	130.04	<D.L.	81.08	26.49	<D.L.	65.69	4.06	132.34	236.5	163.6	<D.L.
HR 180	Bernesga Mb.	366.28	<D.L.	264.8	149.82	<D.L.	70.75	24.72	<D.L.	61.21	<D.L.	134.31	242.75	192.28	3.7
HR 181	Bernesga Mb.	2593.93	<D.L.	190.5	77.48	<D.L.	<D.L.	15.76	<D.L.	72.17	3.6	116.75	216.6	167.89	6.83
HR 182	Bernesga Mb.	2320.37	<D.L.	160.43	89	<D.L.	<D.L.	<D.L.	<D.L.	47.28	<D.L.	119.04	239.16	162.53	7.85
HR 183	Bernesga Mb.	294.87	38.22	278.28	128.73	<D.L.	63.59	<D.L.	7.29	23.42	<D.L.	132.44	280.94	187.98	<D.L.
HR 184	Bernesga Mb.	<D.L.	<D.L.	73.32	46.42	<D.L.	<D.L.	<D.L.	<D.L.	38.72	<D.L.	121.87	210.25	138.7	<D.L.
HR 185	Bernesga Mb.	1383.86	<D.L.	490.91	90.77	<D.L.	253.88	<D.L.	<D.L.	128.13	<D.L.	91.31	181.95	151.64	<D.L.
HR 186	Bernesga Mb.	940.27	<D.L.	179.36	137.28	<D.L.	73.96	22.43	<D.L.	85.74	<D.L.	131.89	216.34	146.55	<D.L.
HR 187	Bernesga Mb.	481.03	<D.L.	144.4	89.94	<D.L.	<D.L.	<D.L.	<D.L.	17.34	<D.L.	117.11	200.45	172.47	<D.L.
HR 188	Bernesga Mb.	<D.L.	<D.L.	155.33	131.71	<D.L.	<D.L.	<D.L.	10.98	15.01	3.23	138.13	252.08	172.7	<D.L.
HR 189	Bernesga Mb.	<D.L.	<D.L.	<D.L.	45.53	<D.L.	<D.L.	<D.L.	9.69	12.07	<D.L.	113.8	211.36	150.13	<D.L.
HR 190	Bernesga Mb.	<D.L.	<D.L.	129.27	86.19	<D.L.	<D.L.	<D.L.	<D.L.	25.01	<D.L.	131.92	236.12	170.54	<D.L.
HR 191	Bernesga Mb.	<D.L.	<D.L.	94.69	67.47	<D.L.	<D.L.	<D.L.	<D.L.	63	<D.L.	129.57	260.59	167.85	<D.L.
HR 192	Bernesga Mb.	<D.L.	<D.L.	130.45	113.13	<D.L.	<D.L.	<D.L.	15.16	16.11	<D.L.	144.81	274.12	212.79	<D.L.
HR 193	Bernesga Mb.	<D.L.	<D.L.	86.3	79.07	<D.L.	<D.L.	<D.L.	13.83	5.94	<D.L.	140.65	247.34	167.95	<D.L.
HR 194	Bernesga Mb.	<D.L.	<D.L.	102.58	90.07	<D.L.	<D.L.	21.83	<D.L.	41.7	<D.L.	140.11	228.37	182.91	<D.L.
HR 195	Bernesga Mb.	753.41	<D.L.	152.24	70.87	<D.L.	<D.L.	<D.L.	<D.L.	29.51	2.95	128.75	218.77	187.69	<D.L.
HR 196	Bernesga Mb.	<D.L.	<D.L.	114.92	97.72	<D.L.	<D.L.	<D.L.	11.53	12.79	<D.L.	144.06	287.18	188.94	<D.L.
HR 197	Bernesga Mb.	393.44	<D.L.	173.82	71.35	<D.L.	38.34	<D.L.	<D.L.	50.71	<D.L.	133.93	230.5	167.66	<D.L.
HR 198	Bernesga Mb.	327.57	<D.L.	180	116.89	<D.L.	50.78	24.11	<D.L.	88	<D.L.	131.8	252.37	153.96	<D.L.
HR 199	Bernesga Mb.	<D.L.	<D.L.	172.18	125.48	<D.L.	<D.L.	19.26	12.84	33.33	<D.L.	140.75	197.16	196.12	<D.L.
HR 200	Bernesga Mb.	370.54	<D.L.	160.43	71.36	<D.L.	89.12	29.8	<D.L.	68.91	<D.L.	121.67	234.85	205.69	<D.L.

Sample	Formation	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba	W	Au	Hg	Pb	Th	U
HR 176	Bernesga Mb.	<D.L.	40.76	<D.L.	<D.L.	24.3	<D.L.	23.37	308.04	<D.L.	<D.L.	<D.L.	<D.L.	17.32	10.7
HR 177	Bernesga Mb.	<D.L.	67.71	<D.L.	45.04	40.88	80.41	58.06	464.64	<D.L.	<D.L.	<D.L.	<D.L.	18.62	11.65
HR 178	Bernesga Mb.	16.49	67.77	14.96	51.87	59.44	90.59	67.34	491.55	<D.L.	<D.L.	<D.L.	<D.L.	25.39	<D.L.
HR 179	Bernesga Mb.	<D.L.	127.01	<D.L.	87.13	88.69	129.21	86.46	637.3	<D.L.	<D.L.	7.35	<D.L.	12.03	<D.L.
HR 180	Bernesga Mb.	<D.L.	99.49	11.49	57.76	46.94	120.87	74.55	563.56	<D.L.	<D.L.	7.11	35.91	20.24	10.68
HR 181	Bernesga Mb.	<D.L.	120.52	16.46	55.63	90.83	144.25	88.09	604.43	<D.L.	<D.L.	<D.L.	114.63	12.7	16.98
HR 182	Bernesga Mb.	<D.L.	100.83	13.7	65.31	68.09	123.54	84.47	701.79	<D.L.	<D.L.	<D.L.	89.26	21.49	11.64
HR 183	Bernesga Mb.	<D.L.	89.39	<D.L.	73.59	57.59	97.11	73.76	533.38	<D.L.	<D.L.	8.31	12.12	23.91	16.12
HR 184	Bernesga Mb.	<D.L.	169.23	20.54	74.66	91.78	204.34	102.58	636.96	<D.L.	<D.L.	10.41	8.92	17.27	<D.L.
HR 185	Bernesga Mb.	<D.L.	219.21	37.92	130.72	128.66	256.98	158.05	934.79	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 186	Bernesga Mb.	<D.L.	129.84	<D.L.	67.25	77.39	156.89	86.39	656.01	<D.L.	<D.L.	<D.L.	99.64	18.12	<D.L.
HR 187	Bernesga Mb.	<D.L.	101.43	15.72	61.72	38.72	101.38	68.55	539.06	<D.L.	<D.L.	<D.L.	<D.L.	14.5	<D.L.
HR 188	Bernesga Mb.	<D.L.	95.06	13.55	47.38	53.97	94.5	68.02	530.38	<D.L.	<D.L.	<D.L.	14.84	19.79	8.77
HR 189	Bernesga Mb.	<D.L.	142.75	19.17	93.16	103.51	183.52	103.96	601.47	<D.L.	<D.L.	<D.L.	<D.L.	20.49	<D.L.
HR 190	Bernesga Mb.	<D.L.	97.62	13.25	47.02	56.95	121.98	76.87	531.5	<D.L.	<D.L.	<D.L.	<D.L.	17.95	<D.L.
HR 191	Bernesga Mb.	<D.L.	125.76	20.65	83.69	80.12	131.98	98.22	613.49	<D.L.	<D.L.	<D.L.	<D.L.	19.61	<D.L.
HR 192	Bernesga Mb.	<D.L.	81.33	15.94	67.38	57.31	131.07	69.2	517.76	<D.L.	<D.L.	<D.L.	7.72	22.31	<D.L.
HR 193	Bernesga Mb.	<D.L.	96.53	25.74	61.56	58.97	123.31	71.02	527.97	<D.L.	<D.L.	7.74	<D.L.	20.56	<D.L.
HR 194	Bernesga Mb.	<D.L.	78.6	12.08	59.33	43.83	93.42	59.59	492.58	<D.L.	<D.L.	8.49	<D.L.	16.75	<D.L.
HR 195	Bernesga Mb.	<D.L.	64.21	<D.L.	36.76	37.22	71.83	60.87	481.08	<D.L.	<D.L.	<D.L.	17.61	16.32	<D.L.
HR 196	Bernesga Mb.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	228.43	<D.L.	<D.L.	<D.L.	9.29	25.14	<D.L.
HR 197	Bernesga Mb.	<D.L.	74.34	<D.L.	47.43	41.59	65.54	55.28	488.91	<D.L.	<D.L.	<D.L.	71.28	16.74	<D.L.
HR 198	Bernesga Mb.	<D.L.	77.81	<D.L.	42.8	44.83	85.99	57.89	508.73	<D.L.	<D.L.	<D.L.	<D.L.	16.4	<D.L.
HR 199	Bernesga Mb.	<D.L.	118.19	17.12	68.31	58.78	136.75	83.76	617.44	<D.L.	<D.L.	6.64	<D.L.	16.6	<D.L.
HR 200	Bernesga Mb.	<D.L.	170.11	30.93	97.97	102.97	195.25	116.48	722.01	<D.L.	<D.L.	9.2	<D.L.	9.41	<D.L.

Sample	Formation	S	Sc	V	Cr	Co	Ni	Cu	Zn	As	Se	Rb	Sr	Zr	Mo
HR 201	Bernesga Mb.	279.18	<D.L.	141.3	58.12	<D.L.	<D.L.	41.14	<D.L.	94.45	<D.L.	132.76	258.09	238.87	<D.L.
HR 202	Bernesga Mb.	<D.L.	<D.L.	85.63	41.21	<D.L.	<D.L.	56.33	<D.L.	117.57	<D.L.	72.66	165.73	141.22	<D.L.
HR 203	Bernesga Mb.	<D.L.	<D.L.	73.72	49.98	<D.L.	60.82	<D.L.	<D.L.	60.77	<D.L.	108.41	207.04	194.18	<D.L.
HR 204	Bernesga Mb.	<D.L.	<D.L.	190.65	80.95	<D.L.	53.8	<D.L.	<D.L.	31.03	<D.L.	132.99	209.37	186.77	<D.L.
HR 205	Bernesga Mb.	<D.L.	<D.L.	126.95	51.91	<D.L.	45.99	<D.L.	<D.L.	69.69	<D.L.	114.91	213.18	192.46	<D.L.
HR 206	Bernesga Mb.	<D.L.	<D.L.	118.51	46.97	<D.L.	57.7	<D.L.	10.6	50.94	<D.L.	116.97	200.48	145.62	<D.L.
HR 207	Bernesga Mb.	1211.16	<D.L.	646.83	72.23	<D.L.	246.51	21.1	<D.L.	344.42	<D.L.	80.03	156.03	114.81	<D.L.
HR 208	Bernesga Mb.	<D.L.	<D.L.	191.4	138.33	<D.L.	80.25	<D.L.	9.95	18.68	<D.L.	151.42	229.33	148.45	<D.L.
HR 209	Bernesga Mb.	<D.L.	<D.L.	228.3	167.45	<D.L.	42.05	27.64	8.14	41.24	<D.L.	140.54	252.08	175.36	<D.L.
HR 210	Bernesga Mb.	<D.L.	<D.L.	156.87	84.92	<D.L.	47.82	<D.L.	13.26	19.86	<D.L.	131.7	231.29	153.68	<D.L.
HR 211	Bernesga Mb.	<D.L.	<D.L.	92.7	49.98	<D.L.	<D.L.	<D.L.	<D.L.	33.56	<D.L.	110.01	187.09	148.97	<D.L.
HR 212	Bernesga Mb.	<D.L.	<D.L.	133.58	85.42	<D.L.	<D.L.	46.34	<D.L.	45.97	<D.L.	131.47	200.37	162.42	<D.L.
HR 213	Bernesga Mb.	<D.L.	<D.L.	30.95	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	20.76	<D.L.	109.16	176.25	120.07	<D.L.
HR 214	Bernesga Mb.	253.51	<D.L.	172.15	121.98	<D.L.	<D.L.	<D.L.	11.39	19.46	<D.L.	146.71	241.86	167.91	<D.L.
HR 215	Bernesga Mb.	<D.L.	<D.L.	175.57	105.17	<D.L.	<D.L.	19.79	<D.L.	52.41	<D.L.	138.42	219.18	170.52	<D.L.
HR 216	Bernesga Mb.	<D.L.	<D.L.	172.47	128.29	<D.L.	47.89	17.22	<D.L.	32.21	<D.L.	124.56	221.54	155.61	<D.L.
HR 217	Bernesga Mb.	<D.L.	<D.L.	151.2	72.59	<D.L.	<D.L.	20.55	<D.L.	37.8	<D.L.	131.27	203.9	147	<D.L.
HR 218	Bernesga Mb.	<D.L.	<D.L.	199.77	112.11	<D.L.	42.55	26.01	7.92	25.09	<D.L.	131.06	239.72	175.09	<D.L.
HR 219	Bernesga Mb.	577.02	<D.L.	148.09	30.58	<D.L.	<D.L.	118.17	<D.L.	113.77	4.18	72.49	169.54	148.25	<D.L.
HR 220	Bernesga Mb.	<D.L.	<D.L.	152.74	96.13	<D.L.	<D.L.	<D.L.	10.67	21.36	<D.L.	139.51	232.27	167.94	<D.L.
HR 221	Bernesga Mb.	279.96	<D.L.	165.16	90.2	<D.L.	84.65	20.61	<D.L.	54.79	<D.L.	129.75	220.8	163.09	<D.L.
HR 222	Bernesga Mb.	<D.L.	<D.L.	256.37	96.48	<D.L.	106.89	50.87	<D.L.	88.87	<D.L.	111.88	189.23	138.29	<D.L.
HR 223	Bernesga Mb.	447.06	<D.L.	225.97	86.11	<D.L.	77.4	42.47	<D.L.	67.99	<D.L.	120.01	199.92	171.68	<D.L.
HR 224	Bernesga Mb.	677.65	<D.L.	190.42	76.08	<D.L.	52.09	51.16	<D.L.	69.85	<D.L.	123.44	206.54	162.11	<D.L.
HR 225	Bernesga Mb.	<D.L.	<D.L.	217.55	116.75	<D.L.	66.07	20.78	<D.L.	56.92	<D.L.	129.6	235.01	176.34	<D.L.

Sample	Formation	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba	W	Au	Hg	Pb	Th	U
HR 201	Bernesga Mb.	<D.L.	67.43	<D.L.	<D.L.	34.7	56.12	51.92	420.95	<D.L.	<D.L.	<D.L.	<D.L.	13.29	12.47
HR 202	Bernesga Mb.	<D.L.	211.1	26.25	113.37	107.89	217.97	118.73	683.97	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 203	Bernesga Mb.	<D.L.	189.66	19.93	103.45	101.86	186.75	123.82	758.43	<D.L.	<D.L.	<D.L.	<D.L.	10.25	<D.L.
HR 204	Bernesga Mb.	<D.L.	80.1	<D.L.	40.7	35.01	81.91	53.52	467.78	<D.L.	<D.L.	7.48	<D.L.	16.27	<D.L.
HR 205	Bernesga Mb.	<D.L.	107.9	<D.L.	55.53	57.57	133.83	86.75	503.65	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 206	Bernesga Mb.	<D.L.	159.4	18.67	98.03	109.72	183.77	117.84	740.37	<D.L.	<D.L.	11.47	<D.L.	11.17	<D.L.
HR 207	Bernesga Mb.	28.32	279.26	66.03	173.6	204.49	406.66	223.95	1138.45	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 208	Bernesga Mb.	<D.L.	108.85	22.29	60.78	55.65	98.5	69.85	584.15	<D.L.	<D.L.	<D.L.	<D.L.	20.92	<D.L.
HR 209	Bernesga Mb.	13.28	103.86	17.17	70.54	52.65	113.03	73.2	543.48	<D.L.	<D.L.	<D.L.	<D.L.	22.41	9.48
HR 210	Bernesga Mb.	<D.L.	73.18	<D.L.	34.71	27.98	<D.L.	46.59	422.53	<D.L.	<D.L.	<D.L.	<D.L.	18.19	<D.L.
HR 211	Bernesga Mb.	<D.L.	142	20.38	77.55	78.98	142.19	97.25	619.86	<D.L.	<D.L.	<D.L.	<D.L.	13.25	<D.L.
HR 212	Bernesga Mb.	<D.L.	94.97	13.55	69.29	69.08	137.84	76.98	552.4	<D.L.	<D.L.	<D.L.	<D.L.	20.88	<D.L.
HR 213	Bernesga Mb.	<D.L.	306.62	50.28	116.46	135.93	254.17	136.87	706.22	<D.L.	<D.L.	<D.L.	<D.L.	10.19	<D.L.
HR 214	Bernesga Mb.	<D.L.	80.03	<D.L.	42.87	44.84	91.66	62.21	483.71	<D.L.	<D.L.	10.05	40.78	21.09	<D.L.
HR 215	Bernesga Mb.	<D.L.	76.45	12.8	36.69	43.06	72.42	57.71	465.14	<D.L.	<D.L.	<D.L.	<D.L.	20.03	<D.L.
HR 216	Bernesga Mb.	<D.L.	123.76	20.13	64.81	77.83	129.69	84.25	642.25	<D.L.	<D.L.	<D.L.	<D.L.	17.13	<D.L.
HR 217	Bernesga Mb.	<D.L.	72.72	<D.L.	63.92	35.5	100.63	64.06	475.74	<D.L.	<D.L.	<D.L.	<D.L.	13.21	<D.L.
HR 218	Bernesga Mb.	<D.L.	114.99	15.83	71.48	68.75	121.87	75.8	571.04	<D.L.	<D.L.	7.54	<D.L.	20	<D.L.
HR 219	Bernesga Mb.	<D.L.	283.17	58.8	194.65	166.82	411.05	222.77	1185.76	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 220	Bernesga Mb.	<D.L.	99.62	13.43	67.65	60.86	103.24	73.07	512.8	<D.L.	<D.L.	<D.L.	<D.L.	23.13	10.87
HR 221	Bernesga Mb.	<D.L.	97.36	23.89	75.09	64.79	122.13	75.23	539.97	<D.L.	<D.L.	<D.L.	<D.L.	16.61	<D.L.
HR 222	Bernesga Mb.	<D.L.	185.38	27.04	109.25	116.19	234.15	139.68	826.93	<D.L.	9.37	<D.L.	<D.L.	9.93	<D.L.
HR 223	Bernesga Mb.	<D.L.	153.89	21.32	102.03	80.5	152.15	115.49	715.63	<D.L.	<D.L.	6.84	<D.L.	9.42	<D.L.
HR 224	Bernesga Mb.	<D.L.	131.94	16.28	85.84	92.76	153.71	103.14	661.17	<D.L.	<D.L.	<D.L.	<D.L.	8.36	<D.L.
HR 225	Bernesga Mb.	<D.L.	94.42	15.51	57.12	46.58	88.19	64.42	519.56	<D.L.	<D.L.	<D.L.	<D.L.	16.16	<D.L.

Sample	Formation	S	Sc	V	Cr	Co	Ni	Cu	Zn	As	Se	Rb	Sr	Zr	Mo
HR 226	Bernesga Mb.	842.41	<D.L.	194.81	74.45	<D.L.	67.37	27.24	<D.L.	72.01	<D.L.	108.72	164.74	145.67	<D.L.
HR 227	Bernesga Mb.	<D.L.	<D.L.	197.65	106.05	<D.L.	<D.L.	<D.L.	16.79	12.62	<D.L.	155.32	214.41	156.91	<D.L.
HR 228	Bernesga Mb.	329.92	<D.L.	150.79	73.44	<D.L.	<D.L.	<D.L.	13.07	22.33	<D.L.	130.35	204.21	173.8	<D.L.
HR 229	Bernesga Mb.	<D.L.	<D.L.	111.06	42.66	<D.L.	<D.L.	17.2	13.39	15.11	<D.L.	137.01	189.79	154.39	<D.L.
HR 230	Bernesga Mb.	<D.L.	<D.L.	189.19	90.41	<D.L.	98.19	17.29	12.75	30.2	<D.L.	140.13	226.33	162.4	<D.L.
HR 231	Bernesga Mb.	<D.L.	<D.L.	179.32	90.99	<D.L.	<D.L.	<D.L.	16.01	15.22	<D.L.	136.76	233.56	215.15	<D.L.
HR 232	Bernesga Mb.	<D.L.	<D.L.	253.04	120.48	<D.L.	54.17	15.02	10.24	15.47	<D.L.	139.71	231.23	193.04	<D.L.
HR 233	Bernesga Mb.	239.43	<D.L.	165.01	79.23	<D.L.	<D.L.	<D.L.	10.51	12.42	<D.L.	131.98	179.37	168.31	<D.L.
HR 234	Bernesga Mb.	<D.L.	<D.L.	149.29	71.93	<D.L.	44.28	15.12	11.84	16.22	<D.L.	138.01	180.26	164.44	<D.L.
HR 235	Bernesga Mb.	<D.L.	<D.L.	60.99	24.99	<D.L.	<D.L.	29.39	<D.L.	76.78	5.26	107.04	188.23	145.81	5.65
HR 236	Bernesga Mb.	<D.L.	<D.L.	72.43	41.34	1987.7	<D.L.	89.51	<D.L.	169.19	7.3	96.05	178.97	163.63	16.63
HR 237	Bernesga Mb.	<D.L.	<D.L.	129.28	59.32	<D.L.	<D.L.	<D.L.	<D.L.	16.54	<D.L.	124.28	212.78	146.72	<D.L.
HR 238	Bernesga Mb.	718.91	<D.L.	162.89	<D.L.	<D.L.	118.47	115.37	<D.L.	102.17	3.92	99.91	179.84	192.3	<D.L.
HR 239	Bernesga Mb.	<D.L.	<D.L.	90.7	33.48	<D.L.	<D.L.	19.76	<D.L.	25.76	<D.L.	121.09	207.88	182.86	<D.L.
HR 240	Bernesga Mb.	<D.L.	<D.L.	123.05	55.76	<D.L.	<D.L.	<D.L.	<D.L.	33.82	<D.L.	94.83	177.45	222.98	<D.L.
HR 241	Bernesga Mb.	<D.L.	<D.L.	96.35	48.89	<D.L.	<D.L.	<D.L.	<D.L.	40.93	<D.L.	112.86	181.54	196.55	<D.L.
HR 242	Bernesga Mb.	<D.L.	<D.L.	269.97	88.1	<D.L.	66.81	54.55	<D.L.	75.76	<D.L.	106.34	169.28	151.83	<D.L.
HR 243	Bernesga Mb.	429.52	<D.L.	184.91	59.12	<D.L.	<D.L.	49.14	<D.L.	81.87	<D.L.	96.94	144.96	171.83	<D.L.
HR 244	Bernesga Mb.	<D.L.	<D.L.	64.36	43.81	852.05	<D.L.	41.62	<D.L.	87.21	<D.L.	69.28	174.51	259.83	7.78
HR 245	Bernesga Mb.	426.47	<D.L.	186.23	60.91	<D.L.	<D.L.	24.98	<D.L.	39.08	<D.L.	108.76	191.74	162.61	<D.L.
HR 246	Bernesga Mb.	<D.L.	<D.L.	88.57	<D.L.	2918.73	<D.L.	<D.L.	<D.L.	194.05	<D.L.	19.78	96.16	103.14	<D.L.
HR 247	Bernesga Mb.	313.24	<D.L.	165.39	74.94	<D.L.	<D.L.	19.17	<D.L.	46.29	3.14	128.69	214.75	247.75	4.09
HR 248	Bernesga Mb.	303.69	<D.L.	121.51	74.11	<D.L.	<D.L.	26.58	<D.L.	67.08	4.11	102.31	206.32	196.13	7.79
HR 249	Bernesga Mb.	<D.L.	<D.L.	316.1	82.07	<D.L.	56.32	38.53	<D.L.	155.32	5.89	99.35	187.83	183.28	<D.L.
HR 250	Bernesga Mb.	973.95	<D.L.	247.63	57.47	<D.L.	94.84	43.45	<D.L.	123.51	5.81	74.22	155.21	181.5	<D.L.

Sample	Formation	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba	W	Au	Hg	Pb	Th	U
HR 226	Bernesga Mb.	<D.L.	121.63	18.07	64.37	66.64	126.79	85.24	564.59	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 227	Bernesga Mb.	<D.L.	39.53	<D.L.	27.68	<D.L.	45.21	35.93	354.35	<D.L.	<D.L.	<D.L.	<D.L.	24.17	<D.L.
HR 228	Bernesga Mb.	<D.L.	71.5	13.84	53.53	56.75	82.79	58.76	407.83	<D.L.	<D.L.	8.66	<D.L.	19.25	<D.L.
HR 229	Bernesga Mb.	<D.L.	74.04	21.02	36.71	68.54	87.05	53.41	434.85	<D.L.	<D.L.	<D.L.	<D.L.	22.09	<D.L.
HR 230	Bernesga Mb.	14.48	178.21	15.41	106.25	87.61	179.35	115.72	772.87	<D.L.	<D.L.	<D.L.	10.34	19.43	<D.L.
HR 231	Bernesga Mb.	<D.L.	45.62	<D.L.	<D.L.	28.21	49.89	39.21	377.15	<D.L.	<D.L.	<D.L.	<D.L.	19.97	<D.L.
HR 232	Bernesga Mb.	<D.L.	139.28	23.37	75.88	76.64	150.35	97.84	644.47	<D.L.	<D.L.	6.47	<D.L.	25.74	9.49
HR 233	Bernesga Mb.	<D.L.	84.21	<D.L.	60.86	46.15	100.25	70.42	527.38	<D.L.	<D.L.	6.28	<D.L.	20.75	<D.L.
HR 234	Bernesga Mb.	<D.L.	98.54	<D.L.	36.43	45.41	95.23	73.1	530.19	<D.L.	<D.L.	<D.L.	<D.L.	22.69	<D.L.
HR 235	Bernesga Mb.	23.01	292.61	42.12	145.79	152.7	309.14	153.3	874.74	<D.L.	<D.L.	<D.L.	<D.L.	11.74	<D.L.
HR 236	Bernesga Mb.	<D.L.	203.87	<D.L.	59.75	46.76	90.41	101.95	660.73	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 237	Bernesga Mb.	<D.L.	190.88	46.82	133.01	152.74	260.76	139.89	805.38	<D.L.	<D.L.	<D.L.	<D.L.	20.23	<D.L.
HR 238	Bernesga Mb.	19.05	232.95	41.91	165.5	152.79	354.28	185.01	1014.51	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 239	Bernesga Mb.	<D.L.	156.64	26	82.73	93.29	192.42	111.66	665.78	<D.L.	<D.L.	<D.L.	<D.L.	14.46	<D.L.
HR 240	Bernesga Mb.	<D.L.	34.72	<D.L.	<D.L.	<D.L.	<D.L.	25.57	273.22	<D.L.	<D.L.	<D.L.	<D.L.	9.81	<D.L.
HR 241	Bernesga Mb.	<D.L.	56.02	<D.L.	<D.L.	27.48	<D.L.	40.46	337.69	<D.L.	<D.L.	<D.L.	<D.L.	13.09	<D.L.
HR 242	Bernesga Mb.	<D.L.	218.09	25.25	121.15	129.18	268.95	157.67	901.09	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 243	Bernesga Mb.	14.45	124.22	17.84	90.11	72.88	143.67	104.85	592.2	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 244	Bernesga Mb.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 245	Bernesga Mb.	<D.L.	71.89	<D.L.	30.51	<D.L.	47.3	46.54	405	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 246	Bernesga Mb.	<D.L.	245.2	36.48	134.79	96.63	203.12	132.06	629.04	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 247	Bernesga Mb.	<D.L.	29.58	<D.L.	<D.L.	<D.L.	<D.L.	15.87	273.36	<D.L.	<D.L.	9.4	<D.L.	14.78	10.7
HR 248	Bernesga Mb.	<D.L.	147.99	23.68	75.19	95.94	180.2	109.62	683.9	<D.L.	<D.L.	<D.L.	<D.L.	6.05	<D.L.
HR 249	Bernesga Mb.	<D.L.	154.61	22.57	108.56	82.63	158.56	108.14	704.83	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 250	Bernesga Mb.	23.44	258.41	36.67	152.77	158.87	332.55	179.42	1011.08	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.

Sample	Formation	S	Sc	V	Cr	Co	Ni	Cu	Zn	As	Se	Rb	Sr	Zr	Mo
HR 251	Bernesga Mb.	<D.L.	<D.L.	166.79	59.6	<D.L.	74.43	16.42	<D.L.	35.13	<D.L.	129.08	187.21	203.57	<D.L.
HR 252	Bernesga Mb.	447.76	<D.L.	165.14	36.64	<D.L.	55.93	42.62	<D.L.	58.12	4.72	80.15	154.95	189.21	<D.L.
HR 253	Bernesga Mb.	<D.L.	<D.L.	380.9	105.67	<D.L.	95.62	25.64	<D.L.	61.07	<D.L.	113.58	187.65	197.33	<D.L.
HR 254	Bernesga Mb.	<D.L.	<D.L.	150.41	89.46	<D.L.	<D.L.	36.85	<D.L.	39.48	<D.L.	120.02	186.69	243.76	<D.L.
HR 255	Bernesga Mb.	447.14	<D.L.	132.53	65.53	<D.L.	70.4	63.75	<D.L.	69.44	<D.L.	106.14	163.08	177.46	<D.L.
HR 256	Bernesga Mb.	<D.L.	<D.L.	86.19	73.29	<D.L.	<D.L.	41.93	<D.L.	48.79	<D.L.	113.79	162.89	179.69	<D.L.
HR 257	Bernesga Mb.	927.19	<D.L.	356.05	167.93	<D.L.	198.64	56.76	<D.L.	100.03	<D.L.	99.05	152.09	131.17	<D.L.
HR 258	Bernesga Mb.	719.28	<D.L.	221.68	101.21	<D.L.	187.14	62.57	<D.L.	96.99	<D.L.	78.8	149.38	158.85	<D.L.
HR 259	Bernesga Mb.	687.68	<D.L.	168.81	75.53	<D.L.	53.74	45.49	<D.L.	104.13	<D.L.	95.28	158.12	142.46	<D.L.
HR 260	Bernesga Mb.	<D.L.	<D.L.	98.87	58.37	<D.L.	<D.L.	17.38	<D.L.	32.39	<D.L.	116.64	169.15	162.23	<D.L.
HR 261	Bernesga Mb.	<D.L.	<D.L.	226.7	125.2	<D.L.	109.56	59.92	<D.L.	58.91	<D.L.	114.09	169.26	129.46	<D.L.
HR 262	Bernesga Mb.	748.3	<D.L.	90.95	37.4	<D.L.	216.52	56.18	<D.L.	118.47	<D.L.	58	142.14	164.53	<D.L.
HR 263	Bernesga Mb.	2297.96	<D.L.	191.89	96.62	<D.L.	365.88	86.45	<D.L.	103.83	<D.L.	76.8	143.2	134.49	<D.L.
HR 264	Bernesga Mb.	405.26	<D.L.	172.4	110.77	<D.L.	82.09	42.89	<D.L.	43.57	<D.L.	129.2	188.23	166.13	<D.L.
HR 265	Bernesga Mb.	675.92	<D.L.	152.39	53.32	<D.L.	97.13	60.37	<D.L.	107.23	<D.L.	92.03	149.83	146.58	<D.L.
HR 266	Bernesga Mb.	387.89	<D.L.	136.16	26.07	<D.L.	101.93	48.56	<D.L.	98.61	<D.L.	76.63	133.37	136.9	<D.L.
HR 267	Bernesga Mb.	841.59	<D.L.	193.38	53.46	<D.L.	168.3	74.65	<D.L.	113.78	4.61	76.62	126.6	144.46	<D.L.
HR 268	Bernesga Mb.	913.97	<D.L.	106.63	37.26	<D.L.	162.53	100.99	<D.L.	90.55	<D.L.	93.28	162.56	149.4	<D.L.
HR 269	Bernesga Mb.	<D.L.	<D.L.	130.66	<D.L.	<D.L.	163.84	70.94	<D.L.	96.93	<D.L.	76.36	141.78	160.76	<D.L.
HR 270	Bernesga Mb.	<D.L.	<D.L.	81.44	<D.L.	<D.L.	78.06	40.1	<D.L.	86.42	<D.L.	70.27	141.85	167.32	<D.L.
HR 271	Bernesga Mb.	<D.L.	<D.L.	56.16	26.05	<D.L.	<D.L.	20.88	<D.L.	49.74	<D.L.	120.36	179.48	173.27	<D.L.
HR 272	Bernesga Mb.	<D.L.	<D.L.	178.13	76.3	<D.L.	<D.L.	54.52	<D.L.	60.85	<D.L.	123.12	199.57	160.75	<D.L.
HR 273	Bernesga Mb.	<D.L.	<D.L.	119.17	59.51	<D.L.	<D.L.	<D.L.	<D.L.	42.02	<D.L.	87.93	150.19	367.17	<D.L.
HR 274	Bernesga Mb.	<D.L.	<D.L.	163.48	63.01	<D.L.	50.76	32.07	<D.L.	90.12	<D.L.	101.04	169.69	195.93	<D.L.
HR 275	Bernesga Mb.	<D.L.	<D.L.	175.08	73.61	<D.L.	<D.L.	29.92	<D.L.	64.46	<D.L.	102	177.34	249.14	<D.L.

Sample	Formation	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba	W	Au	Hg	Pb	Th	U
HR 251	Bernesga Mb.	<D.L.	100.01	<D.L.	48.6	44.66	67.01	59.83	467.87	<D.L.	<D.L.	<D.L.	<D.L.	14.57	<D.L.
HR 252	Bernesga Mb.	21.21	199.98	23.54	125.17	139.84	239.15	147.15	845.76	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 253	Bernesga Mb.	<D.L.	143.81	18.95	75.91	81.18	180.48	95.84	660.9	<D.L.	<D.L.	6.53	30.13	9.86	<D.L.
HR 254	Bernesga Mb.	<D.L.	89.7	<D.L.	56.17	49.87	113.26	80.13	554.03	<D.L.	<D.L.	<D.L.	<D.L.	16.98	<D.L.
HR 255	Bernesga Mb.	<D.L.	122.78	19.22	87.32	72.64	135.39	98.61	629.9	<D.L.	<D.L.	<D.L.	<D.L.	6.28	<D.L.
HR 256	Bernesga Mb.	<D.L.	142.83	24.34	61.69	90.14	177.23	98.7	618.64	<D.L.	<D.L.	<D.L.	<D.L.	6.62	<D.L.
HR 257	Bernesga Mb.	16.4	221.54	33.95	124.77	141.57	266.63	171.13	953.94	<D.L.	<D.L.	9.84	<D.L.	<D.L.	<D.L.
HR 258	Bernesga Mb.	18.22	250.56	28.01	130.66	127.1	256.07	184.4	985.53	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 259	Bernesga Mb.	<D.L.	229.64	36.2	118.72	159.8	301.46	170.64	914.38	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 260	Bernesga Mb.	<D.L.	142.37	15.58	75.01	83.53	140.24	102.16	676.66	<D.L.	<D.L.	10.04	134.38	13.11	<D.L.
HR 261	Bernesga Mb.	<D.L.	225.75	25.02	121.98	104.53	218.82	144.02	870.28	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 262	Bernesga Mb.	23.34	160.15	<D.L.	49.84	83.15	151.38	105.41	624.85	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 263	Bernesga Mb.	28.95	342.01	61.1	198.26	219.75	444.35	246.9	1324.21	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 264	Bernesga Mb.	<D.L.	144.09	16.16	66.85	56.36	137.76	89.07	678.22	<D.L.	<D.L.	<D.L.	<D.L.	12.51	<D.L.
HR 265	Bernesga Mb.	<D.L.	250.1	25.94	123.15	157.16	288.67	188.28	1001.87	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 266	Bernesga Mb.	<D.L.	220.97	30.45	114.19	95.29	233.08	138.33	750.17	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 267	Bernesga Mb.	<D.L.	213.27	27.29	136.91	121.21	228.89	137.24	842.52	<D.L.	<D.L.	14.83	<D.L.	<D.L.	<D.L.
HR 268	Bernesga Mb.	21.66	235.37	39.38	166.64	165.61	352.91	183.13	1031.36	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 269	Bernesga Mb.	27.5	358.44	31.69	205.26	188.89	374.29	245.72	1295.18	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 270	Bernesga Mb.	<D.L.	273.42	39.56	154.36	148.77	339.32	186.9	988.15	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 271	Bernesga Mb.	<D.L.	166.85	24.38	105.05	113.38	224.55	105.34	660.18	<D.L.	<D.L.	<D.L.	<D.L.	14.57	<D.L.
HR 272	Bernesga Mb.	<D.L.	148.47	25.35	123	106.46	215.47	123.35	767.58	<D.L.	<D.L.	<D.L.	<D.L.	12.82	<D.L.
HR 273	Bernesga Mb.	<D.L.	128.13	<D.L.	79.62	61.44	135.09	91.48	583.83	<D.L.	<D.L.	<D.L.	<D.L.	7.43	<D.L.
HR 274	Bernesga Mb.	<D.L.	139.57	<D.L.	77.04	67.55	120.41	97.78	637.12	<D.L.	<D.L.	9.7	<D.L.	<D.L.	<D.L.
HR 275	Bernesga Mb.	<D.L.	70.73	16.11	65.11	59.16	81.05	57.14	404.46	<D.L.	<D.L.	<D.L.	<D.L.	8.82	<D.L.

Sample	Formation	S	Sc	V	Cr	Co	Ni	Cu	Zn	As	Se	Rb	Sr	Zr	Mo
HR 276	Bernesga Mb.	304.79	<D.L.	198.62	116.85	<D.L.	70.77	18.18	<D.L.	31.12	<D.L.	128.79	198.77	206.98	<D.L.
HR 277	Bernesga Mb.	<D.L.	<D.L.	108.92	77.19	<D.L.	<D.L.	<D.L.	<D.L.	29.32	<D.L.	128.13	170.62	230.48	<D.L.
HR 278	Bernesga Mb.	<D.L.	<D.L.	115.91	82.28	<D.L.	<D.L.	19.28	<D.L.	38.65	<D.L.	112.84	199.45	303.55	<D.L.
HR 279	Bernesga Mb.	507.74	<D.L.	179.86	118.14	<D.L.	71.16	29.85	<D.L.	67.47	<D.L.	112.89	192.54	187.94	<D.L.
HR 280	Bernesga Mb.	<D.L.	<D.L.	145.12	107.09	<D.L.	<D.L.	<D.L.	9.17	17.21	<D.L.	126.57	198.69	206.33	<D.L.
HR 281	Bernesga Mb.	<D.L.	<D.L.	99.5	44.94	<D.L.	<D.L.	25.59	<D.L.	50.84	<D.L.	98.37	164.88	227.92	<D.L.
HR 282	Bernesga Mb.	<D.L.	<D.L.	126.07	70.09	<D.L.	<D.L.	24.08	<D.L.	34.74	<D.L.	110.1	168.28	169.32	<D.L.
HR 283	Bernesga Mb.	695.89	<D.L.	186.19	84.93	<D.L.	89.99	56.51	<D.L.	69.58	2.71	111.74	180.02	189.51	<D.L.
HR 284	Bernesga Mb.	<D.L.	<D.L.	58.4	52.18	<D.L.	<D.L.	<D.L.	10.05	27.45	<D.L.	97.58	155.24	320.69	<D.L.
HR 285	Bernesga Mb.	862.77	<D.L.	156.06	127.01	<D.L.	157.71	38.36	<D.L.	65.16	<D.L.	107.48	166.82	172.86	<D.L.
HR 286	Bernesga Mb.	<D.L.	<D.L.	109.38	89.36	<D.L.	71.66	32.46	<D.L.	43.46	<D.L.	115.5	164.93	171.28	<D.L.
HR 287	Bernesga Mb.	<D.L.	<D.L.	131.84	117.23	<D.L.	37.48	15.36	9.49	25.2	<D.L.	117.09	207.77	183.78	<D.L.
HR 288	Bernesga Mb.	<D.L.	<D.L.	114.17	76.11	<D.L.	<D.L.	<D.L.	<D.L.	24.02	<D.L.	121.37	193.34	159.33	<D.L.
HR 289	Bernesga Mb.	<D.L.	<D.L.	177.12	66.02	<D.L.	<D.L.	39.89	<D.L.	90.06	<D.L.	107.9	176.33	172.79	<D.L.
HR 290	Bernesga Mb.	<D.L.	<D.L.	224.77	95.03	<D.L.	54.18	25.61	<D.L.	120.08	2.77	114.46	177.27	180.66	<D.L.
HR 291	Bernesga Mb.	<D.L.	<D.L.	161.9	82.21	<D.L.	<D.L.	16.53	<D.L.	50.89	<D.L.	125.65	195.17	167.15	<D.L.
HR 292	Bernesga Mb.	<D.L.	<D.L.	164.86	76.29	<D.L.	<D.L.	69.77	<D.L.	96.65	<D.L.	90.86	163.41	151.92	<D.L.
HR 293	Bernesga Mb.	<D.L.	<D.L.	146.99	78.79	<D.L.	59.91	22.04	<D.L.	27.11	<D.L.	123.29	183.16	167.8	<D.L.
HR 294	Bernesga Mb.	<D.L.	<D.L.	80.27	36.48	<D.L.	<D.L.	18.29	<D.L.	25.96	<D.L.	119.02	165.66	174.17	<D.L.
HR 295	Bernesga Mb.	<D.L.	<D.L.	158.61	114.74	<D.L.	39.98	26.13	14.23	27.31	<D.L.	143.71	182.35	182.04	<D.L.
HR 296	Bernesga Mb.	<D.L.	<D.L.	143.76	64.08	<D.L.	173.26	65.65	<D.L.	93.83	4.69	88.46	155.2	200.99	<D.L.
HR 297	Bernesga Mb.	<D.L.	<D.L.	257.35	96.57	<D.L.	140.37	59.98	<D.L.	84.65	3.78	112.37	194.54	156.76	<D.L.
HR 298	Bernesga Mb.	511.28	<D.L.	123.55	71.47	<D.L.	156.4	73.61	<D.L.	61.03	<D.L.	114.19	191.22	165.87	<D.L.
HR 299	Bernesga Mb.	583.16	<D.L.	157.8	70.49	<D.L.	161.2	103.19	<D.L.	97.03	<D.L.	90.6	149.16	217.26	<D.L.
HR 300	Bernesga Mb.	<D.L.	<D.L.	131.66	96.82	<D.L.	<D.L.	<D.L.	<D.L.	22.77	<D.L.	147.63	212.1	176.55	<D.L.

Sample	Formation	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba	W	Au	Hg	Pb	Th	U
HR 276	Bernesga Mb.	<D.L.	107.82	<D.L.	58.01	52.9	102.27	75.78	556.4	<D.L.	<D.L.	<D.L.	<D.L.	19.35	<D.L.
HR 277	Bernesga Mb.	<D.L.	118.17	22.65	79.97	79.81	156.15	89.04	621.16	<D.L.	<D.L.	<D.L.	<D.L.	18.63	<D.L.
HR 278	Bernesga Mb.	<D.L.	96	12.92	66.21	45.77	120.59	79.53	548.22	<D.L.	<D.L.	7.1	<D.L.	13.11	<D.L.
HR 279	Bernesga Mb.	<D.L.	112.74	<D.L.	67.52	50.57	120.68	85.46	546.77	<D.L.	<D.L.	<D.L.	<D.L.	13.73	<D.L.
HR 280	Bernesga Mb.	<D.L.	63.69	<D.L.	36.85	43.12	72.84	53.51	470.27	<D.L.	<D.L.	<D.L.	<D.L.	17.4	9.21
HR 281	Bernesga Mb.	<D.L.	120.78	15.37	49.36	67.42	125.66	95.1	622.36	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 282	Bernesga Mb.	<D.L.	107.86	18.4	78.05	80.79	151.06	94.17	572.85	<D.L.	<D.L.	<D.L.	<D.L.	9.53	<D.L.
HR 283	Bernesga Mb.	18.02	137.53	25.34	95.39	101.19	184.26	117.86	707.59	<D.L.	<D.L.	8.81	<D.L.	<D.L.	<D.L.
HR 284	Bernesga Mb.	<D.L.	142.58	21.52	72.12	83.32	152.01	94.73	639.88	<D.L.	<D.L.	8.03	<D.L.	11.95	<D.L.
HR 285	Bernesga Mb.	<D.L.	158.37	18.22	97.5	76.92	148.87	109.1	657.64	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 286	Bernesga Mb.	<D.L.	169.48	15.53	99.43	75.68	178.84	119.26	710.3	<D.L.	<D.L.	<D.L.	<D.L.	11.66	<D.L.
HR 287	Bernesga Mb.	<D.L.	71.72	13.41	52.1	49.21	92.18	73.88	502.42	<D.L.	<D.L.	<D.L.	<D.L.	18.97	<D.L.
HR 288	Bernesga Mb.	<D.L.	143.97	34.49	81.62	110.72	212.25	111.6	681.78	<D.L.	<D.L.	<D.L.	<D.L.	12.73	<D.L.
HR 289	Bernesga Mb.	<D.L.	147.51	30.48	104.61	95.25	195.77	125.44	698.97	<D.L.	<D.L.	<D.L.	<D.L.	6.78	<D.L.
HR 290	Bernesga Mb.	<D.L.	105.05	19.05	61.56	68.03	143.65	83.27	558.66	<D.L.	<D.L.	7.13	<D.L.	10.94	<D.L.
HR 291	Bernesga Mb.	<D.L.	103.97	12.98	70.67	71.46	135.94	94.42	560.25	<D.L.	<D.L.	<D.L.	<D.L.	14.69	8.79
HR 292	Bernesga Mb.	<D.L.	200.9	38.67	130.54	133.2	295.38	149.46	858.47	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 293	Bernesga Mb.	<D.L.	165.31	<D.L.	82.23	83.32	120.57	106.36	698.3	<D.L.	<D.L.	<D.L.	<D.L.	12.6	<D.L.
HR 294	Bernesga Mb.	<D.L.	104.58	14.44	59.77	66.36	106.08	71.04	495.74	<D.L.	<D.L.	<D.L.	<D.L.	14.87	<D.L.
HR 295	Bernesga Mb.	<D.L.	87.55	<D.L.	58.93	44.69	66.95	60.53	480.17	<D.L.	<D.L.	5.97	<D.L.	20.53	9.62
HR 296	Bernesga Mb.	<D.L.	256.98	<D.L.	125.23	87.38	174.47	147.63	874.13	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 297	Bernesga Mb.	<D.L.	176.76	45.28	102.68	114.31	244.5	137.88	801.97	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 298	Bernesga Mb.	<D.L.	188.42	<D.L.	87.4	75.89	160.55	116.22	745.62	<D.L.	<D.L.	8.6	<D.L.	<D.L.	<D.L.
HR 299	Bernesga Mb.	<D.L.	196.74	24.14	87.56	97.06	216.93	116.96	769.34	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 300	Bernesga Mb.	<D.L.	76.25	23.19	63.03	49.45	109.6	61.23	511.22	<D.L.	<D.L.	<D.L.	<D.L.	21.05	<D.L.

Sample	Formation	S	Sc	V	Cr	Co	Ni	Cu	Zn	As	Se	Rb	Sr	Zr	Mo
HR 301	Bernesga Mb.	<D.L.	<D.L.	71.38	44.61	<D.L.	62.52	32.25	<D.L.	53.17	<D.L.	93.09	156.13	173.62	<D.L.
HR 302	Bernesga Mb.	<D.L.	<D.L.	256.18	100.96	<D.L.	164.11	50.15	<D.L.	100.95	<D.L.	91.44	160.91	144.47	<D.L.
HR 303	Bernesga Mb.	<D.L.	<D.L.	161.12	72.97	<D.L.	123.11	124.75	<D.L.	123.94	<D.L.	71.49	129.42	133.43	<D.L.
HR 304	Bernesga Mb.	874.26	<D.L.	126.15	94.34	<D.L.	89.27	83.92	<D.L.	98.3	4.85	102.75	157.22	130.6	<D.L.
HR 305	Bernesga Mb.	274.46	<D.L.	117.97	76.11	<D.L.	<D.L.	29.3	<D.L.	36.8	<D.L.	136.96	188.43	188.07	<D.L.
HR 306	Bernesga Mb.	<D.L.	<D.L.	74.68	26.55	<D.L.	51.95	66.63	<D.L.	71.79	<D.L.	110.06	155.33	155.76	<D.L.
HR 307	Bernesga Mb.	<D.L.	<D.L.	124.93	42.2	<D.L.	<D.L.	26.89	<D.L.	101.79	<D.L.	97.18	141.28	126.71	<D.L.
HR 308	Bernesga Mb.	<D.L.	<D.L.	102.58	71.5	<D.L.	97.66	32.47	<D.L.	89.73	<D.L.	93.47	152.08	142.84	<D.L.
HR 309	Bernesga Mb.	<D.L.	<D.L.	71.28	35.08	<D.L.	<D.L.	<D.L.	<D.L.	36.25	<D.L.	116.2	155.3	172.96	<D.L.
HR 310	Bernesga Mb.	282.92	<D.L.	121.77	80.24	<D.L.	48.33	<D.L.	<D.L.	26.52	<D.L.	135.49	176.32	193.15	<D.L.
HR 311	Bernesga Mb.	<D.L.	<D.L.	139.27	53.31	<D.L.	51.59	36.13	<D.L.	69.47	<D.L.	100.59	146.68	206.85	<D.L.
HR 312	Bernesga Mb.	591.32	<D.L.	265.76	90.7	<D.L.	89.56	53.49	<D.L.	141.78	<D.L.	115.84	191.73	162.79	<D.L.
HR 313	Bernesga Mb.	<D.L.	<D.L.	136.18	81.83	<D.L.	87.7	49.38	<D.L.	60.63	<D.L.	118.62	162.92	157.37	<D.L.
HR 314	Bernesga Mb.	<D.L.	<D.L.	191.97	88.16	<D.L.	47.4	29.19	<D.L.	58.94	<D.L.	104.46	152.98	150.97	<D.L.
HR 315	Bernesga Mb.	<D.L.	<D.L.	95	44.11	<D.L.	<D.L.	<D.L.	<D.L.	19.36	<D.L.	120.9	165.36	170.47	<D.L.
HR 316	Bernesga Mb.	<D.L.	<D.L.	135.03	74.34	<D.L.	<D.L.	31.07	<D.L.	60.62	<D.L.	116.98	178.16	153.28	<D.L.
HR 317	Bernesga Mb.	<D.L.	<D.L.	140.41	70.83	<D.L.	101.06	63.61	<D.L.	80.53	<D.L.	98.44	155.09	160.92	<D.L.
HR 318	Bernesga Mb.	<D.L.	<D.L.	107.19	55.46	<D.L.	<D.L.	<D.L.	<D.L.	25.19	<D.L.	110.94	160.94	198.72	<D.L.
HR 319	Bernesga Mb.	<D.L.	<D.L.	82.5	57.4	<D.L.	<D.L.	18.84	<D.L.	41.98	3.82	116.17	146.61	165.07	<D.L.
HR 320	Bernesga Mb.	1042.39	<D.L.	134.47	57.87	<D.L.	215	133.59	<D.L.	114.12	<D.L.	75.52	149.93	139.4	<D.L.
HR 321	Bernesga Mb.	<D.L.	<D.L.	155.3	101.09	<D.L.	71.54	16.24	9.46	25.79	<D.L.	131.53	177.14	191.39	<D.L.
HR 322	Bernesga Mb.	470.05	<D.L.	183.38	77.27	<D.L.	87.09	21.12	<D.L.	69.23	<D.L.	117.6	162.54	172.9	<D.L.
HR 323	Bernesga Mb.	<D.L.	<D.L.	121.13	46.88	<D.L.	<D.L.	26.5	<D.L.	42.81	<D.L.	122.72	186.72	259.17	<D.L.
HR 324	Bernesga Mb.	<D.L.	<D.L.	138.53	113.77	<D.L.	59.82	39.21	<D.L.	25.94	<D.L.	149.51	198.8	183.7	<D.L.
HR 325	Bernesga Mb.	<D.L.	<D.L.	74.78	41.1	<D.L.	<D.L.	26.17	<D.L.	24.54	<D.L.	109.77	166.6	154.26	<D.L.

Sample	Formation	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba	W	Au	Hg	Pb	Th	U
HR 301	Bernesga Mb.	<D.L.	170.13	22.82	98.22	108.56	224.89	115.54	720.75	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 302	Bernesga Mb.	17.27	179.97	<D.L.	103.11	68.37	171.81	129.04	711	<D.L.	<D.L.	10.47	<D.L.	<D.L.	<D.L.
HR 303	Bernesga Mb.	<D.L.	270.04	20.7	139.87	119.94	213.26	165.84	899.41	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 304	Bernesga Mb.	<D.L.	112.21	<D.L.	<D.L.	<D.L.	<D.L.	29.07	323.39	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 305	Bernesga Mb.	<D.L.	123.16	29.99	76.88	73.77	167.92	90.98	606.32	<D.L.	<D.L.	<D.L.	<D.L.	15.84	<D.L.
HR 306	Bernesga Mb.	<D.L.	200.44	26.87	143.35	134.28	314.2	148.27	824.94	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 307	Bernesga Mb.	<D.L.	217.84	42.82	113.72	132.31	243.08	153.27	799.77	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 308	Bernesga Mb.	<D.L.	170.96	20.42	75.99	89.08	155.63	90.3	624.27	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 309	Bernesga Mb.	<D.L.	106.81	<D.L.	39.78	51.68	124.09	79.27	539.11	<D.L.	<D.L.	<D.L.	<D.L.	9.17	<D.L.
HR 310	Bernesga Mb.	<D.L.	72.69	<D.L.	34.87	37.62	72.89	53.46	426.56	<D.L.	<D.L.	<D.L.	9	16.08	<D.L.
HR 311	Bernesga Mb.	<D.L.	158.18	23.17	105.61	74.3	168.95	113.74	684.61	<D.L.	<D.L.	7.99	<D.L.	<D.L.	<D.L.
HR 312	Bernesga Mb.	21.15	121.28	27.82	79.43	85.52	167.63	96.88	601.11	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 313	Bernesga Mb.	<D.L.	170.46	38.14	131.81	107.53	219.89	128.63	763.14	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 314	Bernesga Mb.	<D.L.	128.75	20.33	89.63	86.26	196.18	99.32	622.18	<D.L.	<D.L.	8.99	<D.L.	<D.L.	<D.L.
HR 315	Bernesga Mb.	<D.L.	78.76	<D.L.	52.63	50.11	95.53	51.19	408.69	<D.L.	<D.L.	<D.L.	<D.L.	15.83	<D.L.
HR 316	Bernesga Mb.	19.06	229.02	36.14	149.15	154.13	306.32	170.36	917.13	<D.L.	<D.L.	<D.L.	<D.L.	6.27	<D.L.
HR 317	Bernesga Mb.	<D.L.	152.71	<D.L.	82.91	81.91	153.55	85.01	570.2	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 318	Bernesga Mb.	<D.L.	77.01	14.1	<D.L.	30.24	69.75	43.5	400.43	<D.L.	<D.L.	<D.L.	<D.L.	13.81	<D.L.
HR 319	Bernesga Mb.	<D.L.	122.25	18.6	47.25	74.8	130.86	75.87	552.75	<D.L.	<D.L.	<D.L.	<D.L.	11.18	<D.L.
HR 320	Bernesga Mb.	<D.L.	297.27	43.17	144.12	144.65	324.81	196.23	1090.99	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 321	Bernesga Mb.	<D.L.	97.21	<D.L.	44	48.15	85.02	62.31	510.06	<D.L.	<D.L.	7.28	<D.L.	17.42	<D.L.
HR 322	Bernesga Mb.	<D.L.	120.83	<D.L.	64.82	61.61	108.2	82.06	592.25	<D.L.	<D.L.	<D.L.	<D.L.	5.45	9.75
HR 323	Bernesga Mb.	<D.L.	69.91	13.33	41.76	39.96	69.23	55.54	424.38	<D.L.	<D.L.	8.09	<D.L.	15.21	<D.L.
HR 324	Bernesga Mb.	<D.L.	103.19	16.4	72.11	59.99	124.02	78.85	547.9	<D.L.	<D.L.	<D.L.	<D.L.	20.85	12.34
HR 325	Bernesga Mb.	<D.L.	167.25	24.74	106.53	108.66	209.51	111.39	690.66	<D.L.	<D.L.	<D.L.	<D.L.	15.58	<D.L.

Sample	Formation	S	Sc	V	Cr	Co	Ni	Cu	Zn	As	Se	Rb	Sr	Zr	Mo
HR 326	Bernesga Mb.	<D.L.	<D.L.	91.02	63.02	<D.L.	<D.L.	68.05	<D.L.	49.24	<D.L.	126.74	185.37	166.46	<D.L.
HR 327	Bernesga Mb.	<D.L.	<D.L.	83.05	41.33	<D.L.	<D.L.	25.41	<D.L.	56	4.02	108.97	163.58	200.38	<D.L.
HR 328	Bernesga Mb.	418.19	<D.L.	163.67	94.73	<D.L.	77.66	41.3	<D.L.	53.53	<D.L.	125.4	186.54	161.1	<D.L.
HR 329	Bernesga Mb.	<D.L.	<D.L.	180.04	93.17	<D.L.	73.91	20.79	<D.L.	24.04	<D.L.	140.04	201.01	180.49	<D.L.
HR 330	Bernesga Mb.	<D.L.	<D.L.	158.49	78.58	218.66	<D.L.	50.3	<D.L.	64.71	<D.L.	107.46	165.81	144.02	<D.L.
HR 331	Bernesga Mb.	<D.L.	<D.L.	175.42	70.6	<D.L.	105.22	92.9	<D.L.	48.45	3.52	105.7	167.1	148.3	<D.L.
HR 332	Bernesga Mb.	<D.L.	<D.L.	171.78	89.77	<D.L.	39.8	37.94	<D.L.	33.81	<D.L.	119.93	188.79	181.98	<D.L.
HR 333	Bernesga Mb.	<D.L.	<D.L.	142.8	83.12	<D.L.	51.73	49.26	<D.L.	36.35	<D.L.	118.33	177.08	140.33	<D.L.
HR 334	Bernesga Mb.	<D.L.	<D.L.	188.92	102.97	<D.L.	44.57	29.54	<D.L.	31.45	<D.L.	130.94	192.54	159.33	<D.L.
HR 335	Bernesga Mb.	<D.L.	<D.L.	187.75	95.19	<D.L.	51.37	37.6	<D.L.	46.9	<D.L.	118.61	182.17	143.36	<D.L.
HR 336	Bernesga Mb.	<D.L.	<D.L.	135.22	68.88	<D.L.	<D.L.	19.78	<D.L.	38.6	<D.L.	133.99	207.69	178.67	<D.L.
HR 337	Bernesga Mb.	<D.L.	<D.L.	158.79	111.06	<D.L.	69.42	<D.L.	11.01	21.63	<D.L.	126.18	168.76	144.9	<D.L.
HR 338	Bernesga Mb.	<D.L.	<D.L.	74.47	35.61	<D.L.	<D.L.	<D.L.	<D.L.	57.23	<D.L.	104.73	172.12	156.73	<D.L.
HR 339	Bernesga Mb.	<D.L.	<D.L.	19.05	9.33	<D.L.	<D.L.	<D.L.	<D.L.	45.21	<D.L.	93.21	143.86	151.77	<D.L.

Sample	Formation	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba	W	Au	Hg	Pb	Th	U
HR 326	Bernesga Mb.	<D.L.	148.25	22.19	79.52	88.44	157.21	103.06	654.65	<D.L.	<D.L.	<D.L.	<D.L.	11.69	<D.L.
HR 327	Bernesga Mb.	<D.L.	83.66	<D.L.	46.24	58.31	57.27	47.11	367.83	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 328	Bernesga Mb.	22.27	121.28	35.6	89.27	91.81	159.94	97.36	632.67	<D.L.	<D.L.	6.94	<D.L.	13.24	<D.L.
HR 329	Bernesga Mb.	17.96	108.14	24.69	78.49	78.4	126.81	88.07	605.07	<D.L.	<D.L.	<D.L.	<D.L.	20.15	10.86
HR 330	Bernesga Mb.	<D.L.	159.2	13.71	85.45	76.1	147.45	102.79	703.38	<D.L.	<D.L.	<D.L.	<D.L.	7.11	<D.L.
HR 331	Bernesga Mb.	<D.L.	184.47	17.91	104.8	79.95	203.69	127.67	781.21	<D.L.	<D.L.	7.13	<D.L.	8.87	<D.L.
HR 332	Bernesga Mb.	<D.L.	127.47	18.21	71.48	80.81	141.63	93.15	648.44	<D.L.	<D.L.	<D.L.	<D.L.	13.59	9.09
HR 333	Bernesga Mb.	<D.L.	142.37	17.13	76.83	98.45	181.13	107.74	651.99	<D.L.	<D.L.	8.85	<D.L.	10.22	<D.L.
HR 334	Bernesga Mb.	<D.L.	103.14	<D.L.	56.61	49.07	107.7	74.05	530.95	<D.L.	<D.L.	<D.L.	<D.L.	15.24	<D.L.
HR 335	Bernesga Mb.	<D.L.	119.85	16.31	61.49	66	140.66	84.13	600.85	<D.L.	<D.L.	<D.L.	<D.L.	10.75	<D.L.
HR 336	Bernesga Mb.	<D.L.	59.53	<D.L.	<D.L.	<D.L.	<D.L.	24.91	317.89	<D.L.	<D.L.	<D.L.	<D.L.	10.3	11.86
HR 337	Bernesga Mb.	<D.L.	116.97	12.64	69.55	58.98	115.48	92.7	597.54	<D.L.	<D.L.	7.02	<D.L.	15.26	<D.L.
HR 338	Bernesga Mb.	<D.L.	202.52	35.83	114.03	127.12	238.46	138.37	741.25	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.
HR 339	Bernesga Mb.	<D.L.	259.31	<D.L.	99.7	89.6	148.68	102.7	518.07	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.	<D.L.

3. Geochemical Results – Caldas de Luna section

3.1 Major elements

Sample	Formation	NaO Wt % (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO (Wt%)	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
Caldas 1	Bernesga Mb.	1.76	1.14	28.50	54.33	5.35	< D.L.	1.16	0.08	3.88
Caldas 2	Bernesga Mb.	1.53	1.18	28.58	52.94	4.52	< D.L.	1.26	0.07	4.57
Caldas 3	Bernesga Mb.	1.61	1.06	28.37	52.95	4.79	< D.L.	1.19	0.07	4.09
Caldas 4	Bernesga Mb.	1.50	1.11	31.06	51.70	4.40	0.21	1.15	0.11	9.41
Caldas 5	Bernesga Mb.	1.53	1.25	29.09	54.26	4.52	< D.L.	1.25	0.06	4.06
Caldas 6	Bernesga Mb.	1.50	1.18	30.41	55.75	4.40	< D.L.	1.23	0.06	4.27
Caldas 7	Bernesga Mb.	1.42	1.25	29.19	54.17	4.12	< D.L.	1.29	0.06	4.31
Caldas 8	Bernesga Mb.	1.49	1.14	27.74	54.87	4.36	0.18	1.24	0.06	3.72
Caldas 9	Bernesga Mb.	0.88	< D.L.	25.99	31.05	2.16	0.35	0.66	0.05	58.38
Caldas 10	Bernesga Mb.	1.41	0.96	25.30	52.20	4.07	0.18	1.19	0.06	3.65
Caldas 11	Bernesga Mb.	1.50	1.11	27.25	53.92	4.39	0.20	1.20	0.06	3.65
Caldas 12	Bernesga Mb.	1.38	1.12	29.60	43.91	3.96	0.26	0.97	0.12	21.23
Caldas 13	Bernesga Mb.	1.39	1.03	29.64	49.31	4.02	0.26	1.11	0.06	10.98
Caldas 14	Bernesga Mb.	1.39	1.10	28.62	42.73	4.00	0.30	0.98	0.07	21.75
Caldas 15	Bernesga Mb.	1.24	< D.L.	27.10	38.78	3.48	0.32	0.82	0.06	31.81
Caldas 16	Bernesga Mb.	1.38	1.08	27.55	42.89	3.95	0.28	0.98	0.07	18.91
Caldas 17	Bernesga Mb.	1.15	< D.L.	26.36	35.78	3.15	0.34	0.79	0.07	37.50
Caldas 18	Bernesga Mb.	1.49	1.27	32.95	50.56	4.35	0.24	1.08	0.06	11.99
Caldas 19	Bernesga Mb.	1.51	1.23	29.77	55.50	4.43	< D.L.	1.12	0.06	3.61
Caldas 20	Bernesga Mb.	1.49	1.02	28.24	52.32	4.35	< D.L.	1.17	0.06	5.21
Caldas 21	Bernesga Mb.	1.53	1.04	26.17	52.60	4.53	0.19	1.21	0.06	4.03
Caldas 22	Bernesga Mb.	1.58	1.18	27.28	53.95	4.68	< D.L.	1.17	0.06	3.72
Caldas 23	Bernesga Mb.	1.39	1.13	28.38	49.20	4.01	0.25	1.11	0.06	8.38
Caldas 24	Bernesga Mb.	1.42	1.00	27.09	49.66	4.10	0.24	1.11	0.06	7.33
Caldas 25	Bernesga Mb.	1.53	1.30	29.33	51.65	4.51	0.21	1.13	0.06	6.88

Sample	Formation	NaO Wt % (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO (Wt%)	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
Caldas 26	Bernesga Mb.	1.29	< D.L.	27.32	41.47	3.65	0.28	0.96	0.06	19.27
Caldas 27	Bernesga Mb.	1.28	1.13	29.35	47.92	3.61	0.24	1.09	0.06	12.60
Caldas 28	Bernesga Mb.	1.16	< D.L.	28.35	43.20	3.16	0.28	1.08	0.06	16.95
Caldas 29	Bernesga Mb.	1.22	1.16	32.52	46.26	3.39	0.27	1.05	0.06	17.62
Caldas 30	Bernesga Mb.	1.37	< D.L.	29.12	50.48	3.93	0.20	1.22	0.06	6.24
Caldas 31	Bernesga Mb.	1.40	1.09	32.45	50.04	4.04	0.24	1.13	0.06	10.28
Caldas 32	Bernesga Mb.	1.00	< D.L.	28.43	37.75	2.61	0.32	0.78	0.10	37.32
Caldas 33	Bernesga Mb.	1.35	1.04	29.74	49.16	3.87	0.22	1.05	0.06	11.19
Caldas 34	Bernesga Mb.	1.39	1.05	30.49	53.47	3.99	< D.L.	1.19	0.06	4.18
Caldas 35	Bernesga Mb.	1.40	1.00	30.20	51.74	4.03	< D.L.	1.20	0.06	4.67
Caldas 36	Bernesga Mb.	1.44	1.18	30.47	53.74	4.18	< D.L.	1.17	0.06	4.06
Caldas 37	Bernesga Mb.	1.30	< D.L.	29.72	51.23	3.70	< D.L.	1.24	0.06	4.85
Caldas 38	Bernesga Mb.	1.40	1.03	28.41	51.69	4.04	< D.L.	1.23	0.06	4.06
Caldas 39	Bernesga Mb.	1.37	0.93	28.56	51.48	3.94	< D.L.	1.20	0.06	4.31
Caldas 40	Bernesga Mb.	1.35	1.06	28.55	52.28	3.86	< D.L.	1.22	0.06	4.43
Caldas 41	Bernesga Mb.	1.05	< D.L.	28.57	49.14	2.79	0.20	1.00	0.07	11.20
Caldas 42	Bernesga Mb.	1.20	< D.L.	30.34	48.76	3.32	< D.L.	1.09	0.06	12.04
Caldas 43	Bernesga Mb.	1.45	1.11	30.38	50.15	4.22	< D.L.	1.23	0.06	4.75
Caldas 44	Bernesga Mb.	1.41	1.09	32.07	50.98	4.09	< D.L.	1.19	0.06	6.27
Caldas 45	Bernesga Mb.	1.25	0.98	29.01	51.96	3.49	< D.L.	1.07	0.06	7.02
Caldas 46	Bernesga Mb.	1.36	1.11	33.01	45.98	3.91	0.25	1.11	0.07	12.75
Caldas 47	Bernesga Mb.	1.14	< D.L.	28.71	35.06	3.09	0.29	0.86	0.14	30.75
Caldas 48	Bernesga Mb.	1.29	1.05	31.11	45.81	3.65	0.23	1.04	0.09	15.80
Caldas 49	Bernesga Mb.	1.19	1.05	25.47	54.48	3.27	< D.L.	1.08	0.06	7.08
Caldas 50	Bernesga Mb.	1.03	< D.L.	26.62	36.43	2.70	0.32	0.85	0.15	34.30

Sample	Formation	NaO Wt % (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO (Wt%)	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
Caldas 51	Bernesga Mb.	1.15	< D.L.	30.05	36.87	3.15	0.24	0.93	0.12	26.55
Caldas 52	Bernesga Mb.	1.08	0.98	33.33	50.42	2.87	< D.L.	1.25	0.06	4.80
Caldas 53	Bernesga Mb.	1.44	1.03	29.16	48.32	4.19	< D.L.	1.19	0.06	6.02
Caldas 54	Bernesga Mb.	1.29	1.03	30.27	44.58	3.65	0.35	1.11	0.09	11.50
Caldas 55	Bernesga Mb.	1.34	1.08	32.00	49.25	3.83	0.21	1.20	0.07	5.86
Caldas 56	Bernesga Mb.	1.00	< D.L.	24.49	52.63	2.59	0.20	0.91	0.09	10.94
Caldas 57	Bernesga Mb.	1.27	1.08	29.17	50.63	3.59	< D.L.	1.22	0.06	4.57
Caldas 58	Bernesga Mb.	1.14	1.05	30.27	50.22	3.09	< D.L.	1.07	0.07	7.33
Caldas 59	Bernesga Mb.	1.18	0.98	29.49	55.86	3.23	< D.L.	1.16	0.06	4.87
Caldas 60	Bernesga Mb.	1.16	1.27	29.98	45.57	3.17	0.33	1.03	0.11	12.11
Caldas 61	Bernesga Mb.	1.36	1.18	29.85	48.35	3.88	< D.L.	1.19	0.06	5.02
Caldas 62	Bernesga Mb.	1.32	1.04	27.19	46.47	3.76	< D.L.	1.11	0.06	5.99
Caldas 63	Bernesga Mb.	1.11	< D.L.	30.81	42.22	2.98	0.23	0.97	0.08	20.54
Caldas 64	Bernesga Mb.	1.15	< D.L.	31.78	46.30	3.15	< D.L.	1.02	0.07	14.54
Caldas 65	Bernesga Mb.	1.26	1.04	29.82	48.73	3.53	< D.L.	1.15	0.06	5.60
Caldas 66	Bernesga Mb.	1.23	1.00	31.65	46.27	3.43	< D.L.	1.10	0.06	11.08
Caldas 67	Bernesga Mb.	1.32	1.10	30.77	52.89	3.76	< D.L.	1.16	0.06	3.78
Caldas 68	Bernesga Mb.	1.39	1.06	27.32	47.12	4.01	< D.L.	1.18	0.06	4.08
Caldas 69	Bernesga Mb.	1.10	< D.L.	33.11	41.30	2.94	0.23	0.87	0.05	25.49
Caldas 70	Bernesga Mb.	1.19	< D.L.	32.62	46.74	3.28	0.21	1.00	0.06	14.45
Caldas 71	Bernesga Mb.	1.31	1.23	34.05	50.20	3.71	< D.L.	1.12	0.06	9.38
Caldas 72	Bernesga Mb.	1.31	0.98	29.39	48.49	3.72	< D.L.	1.10	0.06	6.62
Caldas 73	Bernesga Mb.	1.32	1.04	32.86	49.36	3.76	< D.L.	1.20	0.06	6.11
Caldas 74	Bernesga Mb.	1.38	1.01	33.34	49.72	3.98	< D.L.	1.17	0.06	7.32
Caldas 75	Bernesga Mb.	1.27	< D.L.	31.33	50.60	3.57	< D.L.	1.16	0.06	6.23

Sample	Formation	NaO Wt % (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO (Wt%)	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
Caldas 76	Bernesga Mb.	1.38	0.98	31.73	47.44	3.96	< D.L.	1.24	0.06	7.44
Caldas 77	Bernesga Mb.	1.39	1.03	31.23	48.75	3.99	< D.L.	1.15	0.06	6.55
Caldas 78	Bernesga Mb.	1.45	1.06	30.89	53.94	4.23	< D.L.	1.16	0.06	4.41
Caldas 79	Bernesga Mb.	1.43	1.04	29.04	51.82	4.14	< D.L.	1.16	0.06	4.10
Caldas 80	Bernesga Mb.	1.18	< D.L.	29.26	48.95	3.23	< D.L.	0.96	0.06	10.09
Caldas 81	Bernesga Mb.	1.33	1.02	32.21	51.18	3.79	< D.L.	1.15	0.06	6.59
Caldas 82	Bernesga Mb.	1.35	0.98	31.69	48.49	3.87	< D.L.	1.13	0.06	8.48
Caldas 83	Bernesga Mb.	1.36	1.02	32.32	51.36	3.89	< D.L.	1.16	0.06	6.30
Caldas 84	Bernesga Mb.	1.16	< D.L.	33.18	48.08	3.19	< D.L.	1.02	0.06	14.53
Caldas 85	Bernesga Mb.	1.25	< D.L.	31.28	47.75	3.49	< D.L.	1.12	0.06	8.39
Caldas 86	Bernesga Mb.	1.26	< D.L.	31.08	47.02	3.54	< D.L.	1.07	0.06	10.93
Caldas 87	Bernesga Mb.	1.27	1.06	32.86	48.81	3.55	< D.L.	1.05	0.07	10.35
Caldas 88	Bernesga Mb.	1.25	1.01	32.54	51.38	3.49	< D.L.	1.07	0.06	8.47
Caldas 89	Bernesga Mb.	1.22	< D.L.	28.07	53.04	3.37	< D.L.	1.08	0.06	6.22
Caldas 90	Bernesga Mb.	1.39	1.06	30.69	49.88	4.01	< D.L.	1.18	0.06	5.42
Caldas 91	Bernesga Mb.	1.23	< D.L.	29.63	42.34	3.41	< D.L.	1.06	0.06	13.27
Caldas 92	Bernesga Mb.	1.36	0.98	30.20	50.91	3.89	< D.L.	1.14	0.06	5.58
Caldas 93	Bernesga Mb.	0.96	< D.L.	33.51	47.22	2.46	0.20	0.95	0.06	14.24
Caldas 94	Bernesga Mb.	1.30	1.07	33.23	51.98	3.66	< D.L.	1.12	0.06	7.36
Caldas 95	Bernesga Mb.	1.32	1.10	31.77	53.04	3.74	< D.L.	1.12	0.06	6.09
Caldas 96	Bernesga Mb.	1.35	1.23	32.32	52.09	3.85	< D.L.	1.13	0.06	5.00
Caldas 97	Bernesga Mb.	1.35	1.54	31.90	51.68	3.86	< D.L.	1.16	0.06	4.56
Caldas 98	Bernesga Mb.	1.33	1.04	30.16	49.52	3.80	< D.L.	1.14	0.06	5.59

3.2 Trace elements

Sample	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
Caldas 1	Bernesga Mb.	< D.L.	< D.L.	476.58	< D.L.	232.18	135.13	< D.L.	81.38	34.43	< D.L.	27.99	< D.L.	189.84
Caldas 2	Bernesga Mb.	< D.L.	< D.L.	412.46	< D.L.	270.10	141.37	< D.L.	115.50	70.65	< D.L.	58.90	< D.L.	166.87
Caldas 3	Bernesga Mb.	< D.L.	< D.L.	495.65	< D.L.	239.58	137.40	< D.L.	91.60	42.92	< D.L.	40.65	< D.L.	181.90
Caldas 4	Bernesga Mb.	< D.L.	< D.L.	684.54	< D.L.	347.76	125.59	< D.L.	122.23	64.82	< D.L.	121.62	2.80	143.77
Caldas 5	Bernesga Mb.	< D.L.	< D.L.	367.66	< D.L.	253.48	133.55	< D.L.	50.19	31.50	< D.L.	32.06	< D.L.	172.37
Caldas 6	Bernesga Mb.	< D.L.	< D.L.	534.39	21.75	355.64	146.23	< D.L.	61.44	32.28	< D.L.	28.93	< D.L.	170.16
Caldas 7	Bernesga Mb.	< D.L.	412.22	388.21	< D.L.	503.79	150.84	< D.L.	93.33	41.49	< D.L.	43.45	3.18	167.06
Caldas 8	Bernesga Mb.	< D.L.	337.17	487.89	20.54	535.09	145.75	< D.L.	64.68	15.32	< D.L.	24.18	2.01	186.26
Caldas 9	Bernesga Mb.	< D.L.	708.63	1265.02	< D.L.	296.45	56.05	< D.L.	237.36	147.63	47.33	70.20	6.23	70.60
Caldas 10	Bernesga Mb.	< D.L.	< D.L.	473.85	< D.L.	477.58	151.28	< D.L.	49.58	24.72	< D.L.	14.19	< D.L.	173.88
Caldas 11	Bernesga Mb.	< D.L.	< D.L.	474.61	< D.L.	277.76	138.61	< D.L.	40.99	18.16	< D.L.	11.95	2.16	179.88
Caldas 12	Bernesga Mb.	< D.L.	< D.L.	920.12	< D.L.	183.86	108.32	< D.L.	142.74	145.62	54.61	88.81	5.72	110.46
Caldas 13	Bernesga Mb.	< D.L.	308.01	747.80	< D.L.	285.17	121.46	< D.L.	112.04	86.68	< D.L.	74.32	3.99	136.36
Caldas 14	Bernesga Mb.	< D.L.	301.26	719.69	< D.L.	192.77	83.96	< D.L.	147.15	140.81	49.44	75.40	3.75	114.38
Caldas 15	Bernesga Mb.	< D.L.	778.36	1040.39	< D.L.	221.25	73.36	< D.L.	146.86	186.54	46.08	94.93	6.28	91.55
Caldas 16	Bernesga Mb.	< D.L.	425.32	852.19	< D.L.	210.84	90.97	< D.L.	131.24	199.95	< D.L.	74.93	3.29	116.56
Caldas 17	Bernesga Mb.	370.16	662.47	1105.71	< D.L.	184.25	88.38	< D.L.	187.91	231.44	65.01	73.54	4.78	86.10
Caldas 18	Bernesga Mb.	< D.L.	355.18	680.21	< D.L.	238.47	101.02	< D.L.	84.91	119.32	< D.L.	71.04	3.40	137.16
Caldas 19	Bernesga Mb.	< D.L.	303.05	482.77	21.60	249.73	137.96	< D.L.	75.19	13.48	< D.L.	10.76	< D.L.	184.78
Caldas 20	Bernesga Mb.	< D.L.	< D.L.	574.59	< D.L.	291.74	123.00	< D.L.	93.90	57.12	< D.L.	39.29	< D.L.	167.81
Caldas 21	Bernesga Mb.	< D.L.	< D.L.	512.07	25.65	308.02	133.79	< D.L.	64.94	31.05	< D.L.	35.89	2.06	177.19
Caldas 22	Bernesga Mb.	< D.L.	< D.L.	499.31	< D.L.	301.78	139.07	< D.L.	55.42	27.67	< D.L.	17.96	< D.L.	185.80
Caldas 23	Bernesga Mb.	< D.L.	< D.L.	726.51	< D.L.	409.92	114.81	< D.L.	92.55	130.78	< D.L.	104.12	3.01	146.26
Caldas 24	Bernesga Mb.	< D.L.	< D.L.	666.49	< D.L.	406.27	122.55	< D.L.	88.23	100.68	< D.L.	102.70	4.00	149.70
Caldas 25	Bernesga Mb.	< D.L.	< D.L.	616.68	< D.L.	337.14	131.92	< D.L.	86.26	84.99	< D.L.	61.86	2.80	164.84

Sample	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
Caldas 1	Bernesga Mb.	245.79	143.76	21.43	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	10.80	386.83	< D.L.
Caldas 2	Bernesga Mb.	247.42	150.38	22.67	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	18.84	< D.L.	21.94	1529.34	< D.L.
Caldas 3	Bernesga Mb.	235.99	140.07	22.10	3.93	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	309.98	< D.L.
Caldas 4	Bernesga Mb.	225.37	137.75	21.03	< D.L.	< D.L.	61.26	< D.L.	< D.L.	36.65	58.10	49.56	699.60	32.48
Caldas 5	Bernesga Mb.	230.01	144.17	24.09	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	10.79	1390.58	< D.L.
Caldas 6	Bernesga Mb.	222.54	156.92	23.88	3.86	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	336.13	< D.L.
Caldas 7	Bernesga Mb.	233.85	159.14	23.77	7.36	< D.L.	< D.L.	< D.L.	< D.L.	20.16	< D.L.	13.80	2100.96	< D.L.
Caldas 8	Bernesga Mb.	228.66	159.71	25.58	5.01	< D.L.	< D.L.	< D.L.	21.42	< D.L.	< D.L.	< D.L.	248.16	< D.L.
Caldas 9	Bernesga Mb.	182.04	69.96	8.53	7.20	23.06	175.48	19.52	48.47	70.96	145.46	112.77	942.90	< D.L.
Caldas 10	Bernesga Mb.	222.59	161.18	24.61	4.90	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	270.20	21.20
Caldas 11	Bernesga Mb.	218.50	162.22	24.05	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	312.66	< D.L.
Caldas 12	Bernesga Mb.	196.27	117.57	17.80	5.55	17.68	110.91	< D.L.	< D.L.	60.21	103.82	80.82	896.31	39.88
Caldas 13	Bernesga Mb.	212.66	135.00	19.79	4.89	< D.L.	63.05	< D.L.	29.19	29.25	61.65	48.95	680.12	< D.L.
Caldas 14	Bernesga Mb.	197.24	117.35	16.22	< D.L.	< D.L.	123.94	< D.L.	47.84	45.59	91.97	75.22	888.57	38.98
Caldas 15	Bernesga Mb.	182.92	95.42	12.68	6.15	< D.L.	137.95	17.32	< D.L.	60.51	130.28	96.42	979.59	< D.L.
Caldas 16	Bernesga Mb.	198.71	119.86	16.42	6.41	< D.L.	106.53	< D.L.	< D.L.	42.94	93.29	68.80	821.15	< D.L.
Caldas 17	Bernesga Mb.	189.13	96.54	13.27	< D.L.	< D.L.	152.74	22.05	< D.L.	67.53	140.58	103.27	1012.49	< D.L.
Caldas 18	Bernesga Mb.	207.97	136.14	20.15	5.00	< D.L.	82.21	< D.L.	< D.L.	29.01	61.24	60.84	758.05	47.17
Caldas 19	Bernesga Mb.	241.27	138.04	21.61	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	253.76	< D.L.
Caldas 20	Bernesga Mb.	238.71	135.40	22.52	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	15.51	420.06	30.53
Caldas 21	Bernesga Mb.	235.92	155.19	24.26	< D.L.	< D.L.	< D.L.	< D.L.	24.17	< D.L.	< D.L.	11.19	345.60	< D.L.
Caldas 22	Bernesga Mb.	234.91	146.46	22.77	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	323.51	20.71
Caldas 23	Bernesga Mb.	233.60	138.10	20.95	8.33	< D.L.	40.58	< D.L.	28.05	33.16	51.53	44.68	589.23	32.50
Caldas 24	Bernesga Mb.	228.98	137.32	21.18	7.74	< D.L.	< D.L.	< D.L.	< D.L.	31.13	48.99	36.25	477.34	29.58
Caldas 25	Bernesga Mb.	229.34	134.81	22.06	4.12	< D.L.	< D.L.	< D.L.	< D.L.	27.10	45.46	32.72	515.00	< D.L.

Sample	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
Caldas 1	Bernesga Mb.	< D.L.	5.44	< D.L.	< D.L.	19.46	12.38
Caldas 2	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	16.53	11.32
Caldas 3	Bernesga Mb.	< D.L.	5.33	< D.L.	< D.L.	19.64	14.47
Caldas 4	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	6.35	10.83
Caldas 5	Bernesga Mb.	< D.L.	5.22	< D.L.	< D.L.	19.04	15.45
Caldas 6	Bernesga Mb.	< D.L.	6.78	< D.L.	< D.L.	20.23	15.93
Caldas 7	Bernesga Mb.	< D.L.	9.61	57.38	< D.L.	19.47	19.02
Caldas 8	Bernesga Mb.	< D.L.	6.47	< D.L.	< D.L.	20.77	19.76
Caldas 9	Bernesga Mb.	< D.L.	< D.L.	< D.L.	61.81	39.46	18.63
Caldas 10	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	21.05	11.15
Caldas 11	Bernesga Mb.	< D.L.	4.93	29.64	< D.L.	17.80	11.93
Caldas 12	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	13.76
Caldas 13	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	11.09
Caldas 14	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 15	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 16	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	11.76
Caldas 17	Bernesga Mb.	12.79	11.23	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 18	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	11.59
Caldas 19	Bernesga Mb.	< D.L.	< D.L.	47.32	< D.L.	20.93	15.79
Caldas 20	Bernesga Mb.	< D.L.	6.95	< D.L.	< D.L.	14.19	15.52
Caldas 21	Bernesga Mb.	< D.L.	6.32	37.20	< D.L.	19.91	15.06
Caldas 22	Bernesga Mb.	< D.L.	6.98	69.78	< D.L.	23.14	16.28
Caldas 23	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	5.70	9.39
Caldas 24	Bernesga Mb.	< D.L.	6.89	< D.L.	< D.L.	7.53	12.01
Caldas 25	Bernesga Mb.	< D.L.	7.05	< D.L.	< D.L.	10.02	11.71

Sample	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
Caldas 26	Bernesga Mb.	410.87	1412.93	889.86	< D.L.	357.30	105.52	< D.L.	136.73	122.81	< D.L.	149.39	4.39	104.84
Caldas 27	Bernesga Mb.	< D.L.	977.35	785.49	< D.L.	447.36	94.94	< D.L.	98.55	83.88	< D.L.	81.48	4.99	123.72
Caldas 28	Bernesga Mb.	< D.L.	545.05	858.80	< D.L.	286.95	100.33	< D.L.	133.42	97.07	< D.L.	56.49	3.56	106.90
Caldas 29	Bernesga Mb.	< D.L.	449.34	714.99	< D.L.	190.68	99.55	< D.L.	140.63	117.41	47.44	54.79	3.63	116.99
Caldas 30	Bernesga Mb.	< D.L.	< D.L.	616.85	< D.L.	211.53	116.02	< D.L.	72.85	41.16	< D.L.	25.24	< D.L.	157.65
Caldas 31	Bernesga Mb.	< D.L.	< D.L.	703.92	< D.L.	225.68	117.54	< D.L.	97.86	60.59	< D.L.	47.72	3.58	143.30
Caldas 32	Bernesga Mb.	277.32	539.05	1106.30	< D.L.	193.30	62.10	< D.L.	204.48	127.29	55.22	67.63	< D.L.	75.11
Caldas 33	Bernesga Mb.	< D.L.	641.47	752.98	< D.L.	210.86	120.51	< D.L.	93.50	86.12	< D.L.	55.21	< D.L.	125.26
Caldas 34	Bernesga Mb.	< D.L.	< D.L.	518.55	30.56	193.81	126.14	< D.L.	55.87	40.93	< D.L.	9.71	< D.L.	168.17
Caldas 35	Bernesga Mb.	< D.L.	< D.L.	514.27	< D.L.	202.41	131.63	< D.L.	66.06	48.79	< D.L.	14.06	2.07	165.07
Caldas 36	Bernesga Mb.	< D.L.	288.21	364.52	< D.L.	207.15	140.35	< D.L.	68.55	26.15	< D.L.	14.94	< D.L.	176.33
Caldas 37	Bernesga Mb.	< D.L.	< D.L.	571.15	< D.L.	208.53	133.26	< D.L.	61.49	32.64	< D.L.	16.64	2.05	160.90
Caldas 38	Bernesga Mb.	< D.L.	< D.L.	519.16	18.68	194.82	141.75	< D.L.	59.35	22.33	< D.L.	7.78	< D.L.	172.83
Caldas 39	Bernesga Mb.	< D.L.	< D.L.	530.14	< D.L.	190.75	131.62	< D.L.	59.70	20.34	< D.L.	10.16	2.01	169.76
Caldas 40	Bernesga Mb.	< D.L.	< D.L.	544.71	< D.L.	197.63	130.61	< D.L.	72.71	21.07	< D.L.	12.03	< D.L.	160.08
Caldas 41	Bernesga Mb.	< D.L.	390.90	777.35	< D.L.	172.43	96.09	< D.L.	117.26	58.53	37.49	37.76	< D.L.	101.21
Caldas 42	Bernesga Mb.	< D.L.	582.92	748.90	< D.L.	171.87	104.63	< D.L.	136.98	44.83	50.24	42.01	< D.L.	123.26
Caldas 43	Bernesga Mb.	< D.L.	291.72	411.86	< D.L.	207.49	138.73	< D.L.	83.02	26.03	< D.L.	15.57	< D.L.	180.52
Caldas 44	Bernesga Mb.	< D.L.	1143.28	608.64	< D.L.	201.09	115.19	< D.L.	95.57	22.97	< D.L.	19.14	2.70	173.21
Caldas 45	Bernesga Mb.	< D.L.	< D.L.	611.94	< D.L.	200.03	100.62	< D.L.	79.91	41.16	< D.L.	26.39	2.32	146.02
Caldas 46	Bernesga Mb.	< D.L.	< D.L.	744.08	< D.L.	213.26	103.55	< D.L.	131.18	51.14	47.67	46.95	3.16	138.56
Caldas 47	Bernesga Mb.	< D.L.	< D.L.	987.13	< D.L.	187.81	83.67	< D.L.	224.88	44.26	87.96	57.54	4.26	94.63
Caldas 48	Bernesga Mb.	< D.L.	< D.L.	811.22	< D.L.	202.00	91.86	< D.L.	124.44	41.46	54.32	55.52	3.27	120.30
Caldas 49	Bernesga Mb.	< D.L.	< D.L.	473.45	< D.L.	171.50	83.53	< D.L.	83.46	31.28	< D.L.	27.17	< D.L.	122.41
Caldas 50	Bernesga Mb.	< D.L.	< D.L.	1085.39	< D.L.	182.37	57.08	< D.L.	227.47	38.79	90.55	50.57	< D.L.	84.78

Sample	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
Caldas 26	Bernesga Mb.	211.02	106.30	15.29	4.87	15.83	96.38	14.48	< D.L.	58.89	98.90	76.37	826.46	< D.L.
Caldas 27	Bernesga Mb.	220.05	133.02	19.77	9.58	< D.L.	63.24	< D.L.	< D.L.	32.43	55.38	52.60	636.31	34.39
Caldas 28	Bernesga Mb.	192.61	113.69	16.94	< D.L.	< D.L.	93.93	14.01	32.00	49.05	72.20	68.45	710.36	< D.L.
Caldas 29	Bernesga Mb.	184.61	107.40	16.71	< D.L.	< D.L.	108.38	16.31	< D.L.	37.81	74.59	67.17	811.97	< D.L.
Caldas 30	Bernesga Mb.	191.45	129.63	20.04	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	24.14	444.18	< D.L.
Caldas 31	Bernesga Mb.	189.05	111.72	18.28	5.33	< D.L.	61.69	< D.L.	< D.L.	29.74	67.97	52.59	698.38	30.68
Caldas 32	Bernesga Mb.	175.58	84.24	14.01	< D.L.	20.14	170.17	25.36	44.18	65.98	146.81	101.62	884.69	< D.L.
Caldas 33	Bernesga Mb.	221.80	116.14	17.63	< D.L.	< D.L.	52.87	< D.L.	< D.L.	30.92	80.27	59.09	852.30	< D.L.
Caldas 34	Bernesga Mb.	186.40	124.36	20.16	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	274.37	< D.L.
Caldas 35	Bernesga Mb.	191.65	130.87	20.73	3.60	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	14.30	306.93	< D.L.
Caldas 36	Bernesga Mb.	187.88	123.74	19.81	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	645.97	< D.L.
Caldas 37	Bernesga Mb.	186.35	123.23	20.80	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	12.74	294.26	21.96
Caldas 38	Bernesga Mb.	184.88	132.94	19.89	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	222.61	< D.L.
Caldas 39	Bernesga Mb.	181.87	134.98	19.57	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	10.69	313.38	< D.L.
Caldas 40	Bernesga Mb.	183.17	140.50	20.37	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	14.26	293.91	< D.L.
Caldas 41	Bernesga Mb.	175.63	105.23	15.14	< D.L.	12.61	71.09	< D.L.	< D.L.	33.19	69.98	52.96	511.84	< D.L.
Caldas 42	Bernesga Mb.	176.37	133.02	18.70	< D.L.	< D.L.	60.70	< D.L.	< D.L.	25.76	65.70	59.66	623.75	< D.L.
Caldas 43	Bernesga Mb.	182.50	118.46	19.41	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	17.79	884.13	< D.L.
Caldas 44	Bernesga Mb.	179.58	121.42	18.67	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	30.46	< D.L.	30.57	674.39	< D.L.
Caldas 45	Bernesga Mb.	178.95	104.41	16.72	< D.L.	< D.L.	45.28	11.43	< D.L.	23.65	48.57	37.90	463.78	< D.L.
Caldas 46	Bernesga Mb.	178.30	105.10	17.77	< D.L.	< D.L.	66.90	12.76	< D.L.	27.41	78.21	58.71	659.28	< D.L.
Caldas 47	Bernesga Mb.	171.33	72.01	12.59	< D.L.	21.05	129.70	23.71	39.61	53.29	94.85	90.77	850.07	< D.L.
Caldas 48	Bernesga Mb.	174.87	113.80	17.45	< D.L.	13.46	81.43	< D.L.	< D.L.	48.44	79.16	74.56	822.87	47.04
Caldas 49	Bernesga Mb.	178.36	153.84	17.17	< D.L.	< D.L.	< D.L.	11.89	< D.L.	37.00	45.58	40.85	1638.72	< D.L.
Caldas 50	Bernesga Mb.	167.79	87.65	11.79	< D.L.	< D.L.	137.58	15.25	43.76	71.44	125.43	95.97	855.39	< D.L.

Sample	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
Caldas 26	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	12.86
Caldas 27	Bernesga Mb.	< D.L.	8.71	< D.L.	< D.L.	< D.L.	11.60
Caldas 28	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	12.07
Caldas 29	Bernesga Mb.	< D.L.	9.08	< D.L.	< D.L.	< D.L.	9.94
Caldas 30	Bernesga Mb.	< D.L.	7.97	< D.L.	< D.L.	9.85	10.41
Caldas 31	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	13.12
Caldas 32	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	18.04
Caldas 33	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	12.98
Caldas 34	Bernesga Mb.	< D.L.	5.71	< D.L.	< D.L.	15.52	14.30
Caldas 35	Bernesga Mb.	< D.L.	5.48	< D.L.	< D.L.	16.38	8.32
Caldas 36	Bernesga Mb.	< D.L.	5.62	< D.L.	< D.L.	17.71	10.59
Caldas 37	Bernesga Mb.	< D.L.	5.54	< D.L.	< D.L.	13.66	12.17
Caldas 38	Bernesga Mb.	< D.L.	5.04	< D.L.	< D.L.	18.39	12.20
Caldas 39	Bernesga Mb.	< D.L.	5.65	< D.L.	< D.L.	16.76	11.44
Caldas 40	Bernesga Mb.	< D.L.	7.17	< D.L.	< D.L.	15.67	9.28
Caldas 41	Bernesga Mb.	< D.L.	9.69	< D.L.	< D.L.	< D.L.	7.54
Caldas 42	Bernesga Mb.	< D.L.	7.12	< D.L.	< D.L.	< D.L.	8.76
Caldas 43	Bernesga Mb.	< D.L.	5.75	< D.L.	< D.L.	14.25	14.00
Caldas 44	Bernesga Mb.	< D.L.	5.88	< D.L.	< D.L.	10.32	9.79
Caldas 45	Bernesga Mb.	< D.L.	6.95	< D.L.	< D.L.	6.58	8.75
Caldas 46	Bernesga Mb.	< D.L.	7.72	< D.L.	< D.L.	< D.L.	11.04
Caldas 47	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 48	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 49	Bernesga Mb.	< D.L.	6.24	< D.L.	< D.L.	5.43	< D.L.
Caldas 50	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.

Sample	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
Caldas 51	Bernesga Mb.	< D.L.	457.59	917.73	< D.L.	146.42	77.07	< D.L.	185.28	28.55	90.32	53.56	< D.L.	106.04
Caldas 52	Bernesga Mb.	< D.L.	< D.L.	577.40	22.79	217.14	138.53	96.87	36.83	45.26	< D.L.	15.75	< D.L.	118.69
Caldas 53	Bernesga Mb.	< D.L.	< D.L.	572.11	28.45	219.93	123.38	< D.L.	78.80	24.24	34.55	21.56	2.24	176.01
Caldas 54	Bernesga Mb.	224.94	< D.L.	696.38	< D.L.	192.53	109.45	< D.L.	141.47	54.74	61.79	39.28	2.99	137.33
Caldas 55	Bernesga Mb.	< D.L.	< D.L.	593.62	< D.L.	188.36	121.49	< D.L.	71.11	37.37	35.65	21.31	< D.L.	160.41
Caldas 56	Bernesga Mb.	< D.L.	< D.L.	773.77	< D.L.	147.89	68.13	< D.L.	129.09	49.65	45.86	37.49	3.36	89.38
Caldas 57	Bernesga Mb.	< D.L.	727.25	393.51	< D.L.	212.46	132.69	< D.L.	76.15	26.32	< D.L.	13.96	< D.L.	159.01
Caldas 58	Bernesga Mb.	< D.L.	433.88	660.23	< D.L.	170.19	102.15	< D.L.	99.89	72.53	47.89	22.49	2.23	128.48
Caldas 59	Bernesga Mb.	< D.L.	< D.L.	554.99	< D.L.	172.87	107.36	< D.L.	53.71	27.73	< D.L.	12.34	< D.L.	134.98
Caldas 60	Bernesga Mb.	< D.L.	2680.10	728.62	50.65	184.11	104.30	< D.L.	143.95	70.43	82.62	37.02	< D.L.	120.98
Caldas 61	Bernesga Mb.	< D.L.	3791.10	555.18	19.95	193.55	129.09	< D.L.	101.18	33.97	< D.L.	13.03	2.25	173.01
Caldas 62	Bernesga Mb.	< D.L.	2772.02	601.53	< D.L.	206.05	109.39	< D.L.	84.49	24.96	35.71	20.38	2.21	162.37
Caldas 63	Bernesga Mb.	< D.L.	1141.87	685.25	< D.L.	170.69	101.29	< D.L.	127.23	56.01	90.72	57.29	3.47	109.68
Caldas 64	Bernesga Mb.	< D.L.	741.27	775.02	< D.L.	185.75	88.26	< D.L.	86.06	40.46	87.71	47.86	2.91	121.39
Caldas 65	Bernesga Mb.	< D.L.	327.54	592.65	19.54	208.38	119.37	< D.L.	99.98	44.42	37.84	18.48	< D.L.	157.98
Caldas 66	Bernesga Mb.	< D.L.	740.70	570.06	< D.L.	182.60	93.65	< D.L.	100.19	65.46	76.99	35.66	2.67	140.00
Caldas 67	Bernesga Mb.	< D.L.	2731.94	494.35	< D.L.	218.32	136.03	< D.L.	69.43	11.72	< D.L.	8.25	< D.L.	179.49
Caldas 68	Bernesga Mb.	< D.L.	2929.82	533.62	< D.L.	209.99	130.98	< D.L.	82.62	< D.L.	< D.L.	9.21	2.23	188.92
Caldas 69	Bernesga Mb.	< D.L.	1222.27	941.90	< D.L.	172.15	85.08	< D.L.	125.15	54.80	316.01	53.43	4.58	101.82
Caldas 70	Bernesga Mb.	< D.L.	559.46	788.33	< D.L.	195.98	107.53	< D.L.	77.04	90.28	161.73	46.85	< D.L.	126.65
Caldas 71	Bernesga Mb.	< D.L.	840.49	530.23	27.30	204.56	100.07	< D.L.	100.87	41.31	90.24	31.71	2.85	149.26
Caldas 72	Bernesga Mb.	< D.L.	714.64	630.87	24.73	204.56	114.80	< D.L.	108.72	34.13	52.04	23.34	2.31	160.14
Caldas 73	Bernesga Mb.	< D.L.	433.51	617.31	21.32	223.53	126.95	< D.L.	82.28	40.35	44.65	20.78	< D.L.	167.17
Caldas 74	Bernesga Mb.	< D.L.	< D.L.	625.54	< D.L.	199.24	114.16	< D.L.	76.67	29.98	61.40	30.33	< D.L.	166.07
Caldas 75	Bernesga Mb.	< D.L.	< D.L.	619.38	< D.L.	196.39	114.07	< D.L.	74.42	48.59	36.60	23.94	2.29	150.83

Sample	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
Caldas 51	Bernesga Mb.	168.55	75.13	14.19	< D.L.	< D.L.	118.19	14.91	< D.L.	53.59	113.15	85.36	853.91	41.59
Caldas 52	Bernesga Mb.	181.88	125.95	19.43	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	166.10	< D.L.
Caldas 53	Bernesga Mb.	178.06	116.89	17.99	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	31.78	28.29	433.09	< D.L.
Caldas 54	Bernesga Mb.	173.96	97.00	17.49	< D.L.	< D.L.	78.19	< D.L.	< D.L.	44.80	77.03	55.99	652.88	32.52
Caldas 55	Bernesga Mb.	179.37	108.55	18.42	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	21.03	38.68	25.34	417.65	24.81
Caldas 56	Bernesga Mb.	168.39	122.20	17.63	< D.L.	13.67	49.03	< D.L.	< D.L.	38.70	72.56	54.77	573.53	< D.L.
Caldas 57	Bernesga Mb.	181.17	116.97	18.14	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	11.99	1046.14	22.62
Caldas 58	Bernesga Mb.	175.84	93.79	15.44	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	21.78	46.63	35.80	584.15	30.57
Caldas 59	Bernesga Mb.	174.67	142.28	18.76	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	14.27	290.35	< D.L.
Caldas 60	Bernesga Mb.	172.93	100.24	15.75	< D.L.	< D.L.	58.06	< D.L.	< D.L.	40.36	67.42	62.65	609.83	35.26
Caldas 61	Bernesga Mb.	176.38	102.94	18.10	< D.L.	< D.L.	< D.L.	9.25	< D.L.	20.49	< D.L.	16.20	335.81	23.80
Caldas 62	Bernesga Mb.	177.19	116.14	17.28	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	23.27	< D.L.	18.16	359.55	27.47
Caldas 63	Bernesga Mb.	171.70	91.88	15.12	< D.L.	< D.L.	105.23	18.36	< D.L.	44.21	93.17	77.46	937.64	42.87
Caldas 64	Bernesga Mb.	171.62	104.41	15.69	< D.L.	< D.L.	75.67	14.86	30.83	39.50	99.98	68.38	706.43	44.62
Caldas 65	Bernesga Mb.	178.25	109.23	18.72	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	22.07	435.47	< D.L.
Caldas 66	Bernesga Mb.	174.68	98.76	15.21	< D.L.	< D.L.	67.71	< D.L.	< D.L.	33.50	63.20	56.23	943.82	< D.L.
Caldas 67	Bernesga Mb.	181.31	120.09	18.70	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	232.66	< D.L.
Caldas 68	Bernesga Mb.	180.97	122.34	19.15	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	253.58	< D.L.
Caldas 69	Bernesga Mb.	168.60	81.07	13.28	< D.L.	< D.L.	114.22	< D.L.	< D.L.	49.37	124.72	79.87	786.76	< D.L.
Caldas 70	Bernesga Mb.	172.44	102.79	15.39	4.83	< D.L.	75.04	< D.L.	< D.L.	34.76	78.35	60.26	645.40	< D.L.
Caldas 71	Bernesga Mb.	175.59	104.06	17.85	< D.L.	< D.L.	53.69	< D.L.	30.09	31.35	61.80	51.51	999.47	32.01
Caldas 72	Bernesga Mb.	175.44	101.54	18.09	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	19.27	42.17	28.04	478.11	< D.L.
Caldas 73	Bernesga Mb.	178.00	108.66	18.38	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	35.67	26.48	643.07	< D.L.
Caldas 74	Bernesga Mb.	177.26	107.41	17.59	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	26.07	40.29	31.70	479.28	< D.L.
Caldas 75	Bernesga Mb.	176.61	108.26	17.89	< D.L.	< D.L.	< D.L.	< D.L.	25.19	21.63	43.07	23.93	395.78	26.82

Sample	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
Caldas 51	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 52	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	16.05	8.09
Caldas 53	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	11.44	< D.L.
Caldas 54	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 55	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	11.26	< D.L.
Caldas 56	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 57	Bernesga Mb.	< D.L.	5.72	< D.L.	< D.L.	14.89	8.45
Caldas 58	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	5.16	< D.L.
Caldas 59	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	12.91	< D.L.
Caldas 60	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 61	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	13.26	< D.L.
Caldas 62	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	8.96	9.43
Caldas 63	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 64	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 65	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	12.79	7.09
Caldas 66	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 67	Bernesga Mb.	< D.L.	7.37	35.94	< D.L.	19.61	7.00
Caldas 68	Bernesga Mb.	< D.L.	7.10	47.12	< D.L.	17.41	11.07
Caldas 69	Bernesga Mb.	11.83	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 70	Bernesga Mb.	< D.L.	8.23	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 71	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	9.53
Caldas 72	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	7.96	< D.L.
Caldas 73	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	9.24	9.04
Caldas 74	Bernesga Mb.	< D.L.	7.03	< D.L.	< D.L.	6.80	11.14
Caldas 75	Bernesga Mb.	< D.L.	6.77	< D.L.	< D.L.	9.81	8.96

Sample	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
Caldas 76	Bernesga Mb.	< D.L.	838.14	649.94	< D.L.	218.46	119.12	< D.L.	102.88	30.37	66.56	24.50	< D.L.	177.02
Caldas 77	Bernesga Mb.	< D.L.	< D.L.	611.49	< D.L.	196.64	122.66	< D.L.	69.95	49.65	90.51	22.77	2.36	169.81
Caldas 78	Bernesga Mb.	< D.L.	< D.L.	511.34	< D.L.	198.33	132.76	< D.L.	40.54	24.12	39.83	7.73	< D.L.	186.81
Caldas 79	Bernesga Mb.	< D.L.	< D.L.	503.12	< D.L.	194.14	135.86	< D.L.	78.48	19.30	< D.L.	8.48	< D.L.	187.66
Caldas 80	Bernesga Mb.	< D.L.	467.34	682.97	< D.L.	174.37	99.42	< D.L.	95.01	49.07	265.23	33.86	< D.L.	131.84
Caldas 81	Bernesga Mb.	< D.L.	355.17	621.46	< D.L.	203.93	113.35	< D.L.	121.91	46.14	57.65	22.46	< D.L.	164.06
Caldas 82	Bernesga Mb.	< D.L.	286.00	650.13	< D.L.	209.53	110.21	< D.L.	86.05	50.97	92.70	31.14	< D.L.	159.33
Caldas 83	Bernesga Mb.	< D.L.	< D.L.	593.24	27.00	187.64	117.08	< D.L.	75.80	29.63	79.04	20.92	< D.L.	165.12
Caldas 84	Bernesga Mb.	< D.L.	428.98	769.37	< D.L.	179.53	91.43	< D.L.	98.37	45.83	284.45	44.48	4.22	121.28
Caldas 85	Bernesga Mb.	< D.L.	284.80	706.46	< D.L.	204.37	117.34	< D.L.	83.04	37.37	85.81	29.23	< D.L.	141.97
Caldas 86	Bernesga Mb.	< D.L.	509.75	716.32	< D.L.	189.01	104.82	< D.L.	104.92	40.88	152.56	38.21	3.29	142.06
Caldas 87	Bernesga Mb.	< D.L.	376.67	686.75	< D.L.	177.62	100.82	< D.L.	106.49	38.31	119.78	36.46	2.61	138.77
Caldas 88	Bernesga Mb.	< D.L.	789.80	666.70	< D.L.	156.22	101.03	< D.L.	103.36	47.99	89.99	26.91	< D.L.	139.06
Caldas 89	Bernesga Mb.	< D.L.	303.63	583.16	< D.L.	158.07	95.41	< D.L.	92.44	31.23	116.15	22.81	< D.L.	140.98
Caldas 90	Bernesga Mb.	< D.L.	< D.L.	566.10	19.31	188.01	129.66	< D.L.	92.08	37.47	62.74	15.57	< D.L.	182.50
Caldas 91	Bernesga Mb.	< D.L.	541.74	750.53	< D.L.	172.71	103.14	< D.L.	95.08	49.91	198.72	42.63	2.94	138.70
Caldas 92	Bernesga Mb.	< D.L.	289.39	583.53	< D.L.	181.51	114.81	< D.L.	78.13	32.64	54.55	17.25	2.21	171.45
Caldas 93	Bernesga Mb.	< D.L.	668.29	815.92	< D.L.	161.46	98.90	< D.L.	83.85	61.68	234.76	42.13	2.84	90.13
Caldas 94	Bernesga Mb.	< D.L.	753.44	581.51	< D.L.	174.18	110.86	< D.L.	78.82	33.16	83.23	25.78	2.36	157.67
Caldas 95	Bernesga Mb.	< D.L.	< D.L.	570.20	19.75	179.16	114.04	< D.L.	93.58	41.01	76.38	19.40	< D.L.	163.20
Caldas 96	Bernesga Mb.	< D.L.	391.09	537.97	< D.L.	188.86	130.15	< D.L.	121.72	30.49	55.89	13.70	< D.L.	179.02
Caldas 97	Bernesga Mb.	< D.L.	4460.45	527.22	< D.L.	174.01	133.25	< D.L.	120.53	33.52	56.43	11.45	< D.L.	179.95
Caldas 98	Bernesga Mb.	< D.L.	997.20	568.55	21.23	207.91	124.56	< D.L.	111.77	21.29	52.95	17.41	< D.L.	172.88

Sample	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
Caldas 76	Bernesga Mb.	179.39	118.47	19.40	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	25.17	36.30	27.85	576.20	< D.L.
Caldas 77	Bernesga Mb.	177.99	115.09	18.23	< D.L.	< D.L.	< D.L.	< D.L.	26.72	< D.L.	33.99	27.99	425.84	25.40
Caldas 78	Bernesga Mb.	177.56	132.46	19.58	< D.L.	< D.L.	< D.L.	< D.L.	23.75	< D.L.	< D.L.	< D.L.	316.90	< D.L.
Caldas 79	Bernesga Mb.	178.85	126.29	18.71	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	235.04	22.88
Caldas 80	Bernesga Mb.	171.96	96.33	15.13	< D.L.	< D.L.	58.33	< D.L.	< D.L.	36.12	53.24	49.43	552.51	32.25
Caldas 81	Bernesga Mb.	177.08	121.41	18.19	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	23.51	38.78	30.86	452.66	< D.L.
Caldas 82	Bernesga Mb.	177.40	113.17	17.52	< D.L.	< D.L.	42.65	11.01	< D.L.	29.67	44.60	41.84	549.06	28.49
Caldas 83	Bernesga Mb.	177.18	114.63	18.20	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	19.14	37.02	24.19	419.10	44.06
Caldas 84	Bernesga Mb.	173.39	101.81	14.66	< D.L.	< D.L.	73.49	12.24	< D.L.	36.87	73.64	64.79	632.28	46.49
Caldas 85	Bernesga Mb.	177.29	109.73	17.55	4.38	< D.L.	51.32	< D.L.	< D.L.	23.59	44.58	39.69	444.68	32.17
Caldas 86	Bernesga Mb.	175.35	107.04	17.34	< D.L.	13.36	68.29	< D.L.	< D.L.	33.72	70.64	50.36	579.41	< D.L.
Caldas 87	Bernesga Mb.	174.63	99.92	15.79	< D.L.	< D.L.	78.49	< D.L.	< D.L.	28.65	55.50	47.16	564.54	28.70
Caldas 88	Bernesga Mb.	174.34	107.74	15.94	< D.L.	< D.L.	47.28	< D.L.	< D.L.	22.28	42.54	38.73	497.58	< D.L.
Caldas 89	Bernesga Mb.	175.23	147.12	18.78	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	20.49	36.99	25.26	361.48	35.40
Caldas 90	Bernesga Mb.	177.71	116.72	20.18	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	13.69	337.19	< D.L.
Caldas 91	Bernesga Mb.	174.44	102.08	16.36	< D.L.	< D.L.	83.33	< D.L.	< D.L.	30.74	67.29	56.00	634.76	35.12
Caldas 92	Bernesga Mb.	177.52	120.92	18.84	< D.L.	< D.L.	< D.L.	< D.L.	25.88	< D.L.	< D.L.	10.69	281.38	< D.L.
Caldas 93	Bernesga Mb.	170.59	94.19	13.62	< D.L.	< D.L.	73.71	< D.L.	< D.L.	37.40	65.13	62.52	513.88	42.29
Caldas 94	Bernesga Mb.	176.13	114.57	16.41	< D.L.	< D.L.	34.61	< D.L.	< D.L.	23.12	51.28	36.57	489.53	28.39
Caldas 95	Bernesga Mb.	175.65	113.55	17.89	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	34.87	24.24	381.11	25.47
Caldas 96	Bernesga Mb.	177.70	111.28	17.98	< D.L.	< D.L.	< D.L.	< D.L.	22.69	< D.L.	< D.L.	12.69	316.40	< D.L.
Caldas 97	Bernesga Mb.	178.57	120.96	19.39	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	19.06	< D.L.	15.05	352.03	< D.L.
Caldas 98	Bernesga Mb.	177.28	116.42	16.88	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	22.01	< D.L.	19.48	369.77	25.67

Sample	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
Caldas 76	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	8.18	9.28
Caldas 77	Bernesga Mb.	< D.L.	6.13	< D.L.	< D.L.	9.33	9.58
Caldas 78	Bernesga Mb.	< D.L.	7.35	< D.L.	< D.L.	16.08	9.02
Caldas 79	Bernesga Mb.	< D.L.	7.68	33.81	< D.L.	17.58	9.91
Caldas 80	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 81	Bernesga Mb.	< D.L.	6.46	< D.L.	< D.L.	7.87	9.17
Caldas 82	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 83	Bernesga Mb.	< D.L.	7.86	< D.L.	< D.L.	11.14	< D.L.
Caldas 84	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	12.85
Caldas 85	Bernesga Mb.	< D.L.	7.16	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 86	Bernesga Mb.	< D.L.	6.68	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 87	Bernesga Mb.	8.31	6.48	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 88	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	8.05
Caldas 89	Bernesga Mb.	< D.L.	7.00	< D.L.	< D.L.	10.14	8.63
Caldas 90	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	12.72	9.13
Caldas 91	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	9.44
Caldas 92	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	10.02	10.36
Caldas 93	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 94	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	6.87	7.77
Caldas 95	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	8.53	11.50
Caldas 96	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	14.27	< D.L.
Caldas 97	Bernesga Mb.	< D.L.	7.29	32.64	< D.L.	14.95	9.44
Caldas 98	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	9.94	10.01

4. Geochemical Results – La Majua section

4.1 Major elements

Sample	Formation	NaO Wt % (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO (Wt%)	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
La Majua 1	Barrios Fm	0.30	< D.L.	0.15	87.40	0.06	< D.L.	0.23	0.06	3.16
La Majua 2	Getino Bed	0.75	< D.L.	17.73	69.89	1.69	< D.L.	1.05	0.06	3.44
La Majua 3	Getino Bed	0.78	< D.L.	18.52	68.64	1.82	< D.L.	1.29	0.06	3.31
La Majua 4	Getino Bed	0.89	< D.L.	20.20	67.35	2.22	< D.L.	1.39	0.05	4.62
La Majua 5	Getino Bed	0.85	< D.L.	17.65	65.99	2.04	< D.L.	1.24	0.06	4.31
La Majua 6	Getino Bed	0.99	< D.L.	24.04	59.31	2.57	< D.L.	1.85	0.06	6.91
La Majua 7	Getino Bed	0.75	< D.L.	15.86	70.05	1.70	< D.L.	1.10	0.06	3.37
La Majua 8	Getino Bed	0.97	< D.L.	20.06	61.80	2.48	< D.L.	2.06	0.06	8.73
La Majua 9	Getino Bed	0.92	< D.L.	20.79	64.12	2.32	< D.L.	1.82	0.06	4.13
La Majua 10	Getino Bed	0.82	< D.L.	17.03	66.20	1.96	< D.L.	1.41	0.06	4.28
La Majua 11	Getino Bed	0.93	< D.L.	21.67	59.83	2.35	< D.L.	1.86	0.07	5.84
La Majua 12	Getino Bed	0.79	< D.L.	15.66	67.94	1.83	1.50	1.22	0.06	3.58
La Majua 13	Getino Bed	0.68	2.58	15.52	34.44	1.43	0.73	0.97	0.75	34.39
La Majua 14	Getino Bed	0.72	< D.L.	19.46	26.00	1.59	0.33	0.98	1.71	70.85
La Majua 15	Getino Bed	0.90	< D.L.	22.31	62.32	2.23	< D.L.	1.46	0.06	8.28
La Majua 16	Getino Bed	0.98	< D.L.	21.60	61.13	2.53	< D.L.	1.67	0.06	6.40
La Majua 17	Getino Bed	0.98	< D.L.	19.83	66.12	2.51	< D.L.	1.70	0.06	3.74
La Majua 18	Getino Bed	0.92	< D.L.	25.70	48.56	2.29	0.22	1.43	0.10	20.96
La Majua 19	Getino Bed	1.03	< D.L.	26.14	61.59	2.70	< D.L.	1.91	0.06	3.57
La Majua 20	Getino Bed	0.26	4.09	13.54	48.47	< D.L.	0.60	1.17	0.14	17.37
La Majua 21	Getino Bed	0.25	< D.L.	2.29	38.93	< D.L.	0.51	0.35	0.64	27.53
La Majua 22	Getino Bed	0.44	1.72	8.09	69.88	0.58	0.22	0.86	0.09	8.33
La Majua 23	Getino Bed	0.76	2.55	16.40	54.13	1.72	< D.L.	1.32	0.11	11.41
La Majua 24	Getino Bed	0.74	2.54	14.99	59.39	1.64	< D.L.	1.38	0.10	9.39
La Majua 25	Getino Bed	0.70	2.87	14.96	51.25	1.50	0.19	1.47	0.11	10.53

Sample	Formation	NaO Wt % (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO (Wt%)	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
La Majua 26	Getino Bed	0.75	2.30	12.02	66.70	1.68	< D.L.	0.92	0.08	6.00
La Majua 27	Getino Bed	0.33	3.26	8.78	64.25	0.19	0.19	0.86	0.11	9.82
La Majua 28	Getino Bed	0.29	5.25	15.22	43.33	0.01	0.68	1.21	0.18	19.67
La Majua 29	Getino Bed	0.30	0.98	1.74	82.84	0.07	< D.L.	0.36	0.06	4.81
La Majua 30	Getino Bed	0.27	< D.L.	0.89	80.52	< D.L.	< D.L.	1.12	0.07	4.92
La Majua 31	Getino Bed	0.26	< D.L.	< D.L.	89.91	< D.L.	< D.L.	0.27	0.06	3.63
La Majua 32	Bernesga Mb.	1.35	< D.L.	29.79	50.94	3.86	< D.L.	1.21	0.06	4.81
La Majua 33	Bernesga Mb.	1.33	0.98	32.46	50.12	3.78	< D.L.	1.16	0.06	6.99
La Majua 34	Bernesga Mb.	1.23	< D.L.	29.04	49.98	3.42	< D.L.	1.19	0.06	5.85
La Majua 35	Bernesga Mb.	1.30	1.08	34.09	53.01	3.67	< D.L.	1.20	0.06	5.51
La Majua 36	Bernesga Mb.	1.20	< D.L.	31.15	46.11	3.30	< D.L.	1.06	0.06	11.51
La Majua 37	Bernesga Mb.	1.25	< D.L.	29.87	50.77	3.51	< D.L.	1.19	0.06	4.94
La Majua 38	Bernesga Mb.	1.29	< D.L.	31.52	53.23	3.66	< D.L.	1.20	0.06	4.19
La Majua 39	Bernesga Mb.	1.25	< D.L.	31.04	52.35	3.50	< D.L.	1.18	0.06	5.14
La Majua 40	Bernesga Mb.	1.23	0.93	31.98	52.94	3.43	< D.L.	1.17	0.06	4.32
La Majua 41	Bernesga Mb.	1.23	0.93	30.87	52.97	3.43	< D.L.	1.18	0.06	3.75
La Majua 42	Bernesga Mb.	1.19	< D.L.	28.20	51.80	3.28	< D.L.	1.15	0.06	3.60
La Majua 43	Bernesga Mb.	1.19	< D.L.	28.81	53.05	3.29	< D.L.	1.27	0.06	3.79
La Majua 44	Bernesga Mb.	1.23	< D.L.	32.07	50.69	3.44	< D.L.	1.13	0.06	6.76
La Majua 45	Bernesga Mb.	1.18	0.98	29.06	52.97	3.24	< D.L.	1.20	0.06	4.25
La Majua 46	Bernesga Mb.	1.24	1.05	31.53	54.10	3.45	< D.L.	1.20	0.06	3.93
La Majua 47	Bernesga Mb.	1.10	< D.L.	29.69	45.51	2.95	< D.L.	1.04	0.34	10.96
La Majua 48	Bernesga Mb.	1.20	0.94	32.57	50.19	3.32	< D.L.	1.09	0.14	5.73
La Majua 49	Bernesga Mb.	1.16	0.96	32.49	52.10	3.18	< D.L.	1.12	0.12	6.99
La Majua 50	Bernesga Mb.	1.08	< D.L.	30.48	46.51	2.89	< D.L.	1.07	0.36	7.38

Sample	Formation	NaO Wt % (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO (Wt%)	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
La Majua 51	Bernesga Mb.	1.18	0.98	31.15	54.62	3.25	< D.L.	1.21	0.07	5.43
La Majua 52	Bernesga Mb.	1.10	< D.L.	32.26	51.27	2.96	< D.L.	1.10	0.22	6.67
La Majua 53	Bernesga Mb.	1.20	< D.L.	31.94	49.92	3.33	< D.L.	1.10	0.09	7.57
La Majua 54	Bernesga Mb.	1.19	1.08	31.97	53.02	3.29	< D.L.	1.16	0.10	6.06
La Majua 55	Bernesga Mb.	1.21	1.07	34.45	52.86	3.37	0.34	1.12	0.08	8.87
La Majua 56	Bernesga Mb.	1.16	< D.L.	30.54	52.21	3.16	< D.L.	1.16	0.09	6.96
La Majua 57	Bernesga Mb.	1.13	0.95	30.08	53.01	3.06	< D.L.	1.18	0.08	5.19
La Majua 58	Bernesga Mb.	1.11	< D.L.	32.13	50.29	2.98	< D.L.	1.08	0.24	7.99
La Majua 59	Bernesga Mb.	1.16	1.06	31.57	50.82	3.19	0.30	1.14	0.09	6.95
La Majua 60	Bernesga Mb.	1.18	1.13	33.42	49.46	3.23	0.21	1.06	0.21	8.85
La Majua 61	Bernesga Mb.	1.19	1.03	30.94	53.35	3.27	< D.L.	1.18	0.06	5.26
La Majua 62	Bernesga Mb.	1.18	0.99	31.50	53.28	3.25	< D.L.	1.17	0.10	6.46
La Majua 63	Bernesga Mb.	1.19	< D.L.	28.58	51.88	3.30	< D.L.	1.18	0.08	5.36
La Majua 64	Bernesga Mb.	1.24	< D.L.	30.02	49.23	3.47	< D.L.	1.10	0.10	7.07
La Majua 65	Bernesga Mb.	1.21	< D.L.	29.08	52.33	3.35	< D.L.	1.14	0.06	5.18
La Majua 66	Bernesga Mb.	1.17	0.95	29.96	54.59	3.23	< D.L.	1.17	0.07	5.83
La Majua 67	Bernesga Mb.	1.22	0.97	31.21	53.93	3.38	< D.L.	1.18	0.06	5.37
La Majua 68	Bernesga Mb.	1.23	0.95	30.38	54.19	3.43	< D.L.	1.20	0.06	4.86
La Majua 69	Bernesga Mb.	1.20	< D.L.	32.12	51.02	3.33	< D.L.	1.15	0.06	8.53
La Majua 70	Bernesga Mb.	1.16	< D.L.	29.21	52.60	3.17	< D.L.	1.15	0.07	7.16

4.2 Trace elements

Sample	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
La Majua 1	Barrios Fm	< D.L.	< D.L.	< D.L.	< D.L.	29.56	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	10.86	< D.L.	< D.L.
La Majua 2	Getino Bed	< D.L.	< D.L.	255.78	< D.L.	212.60	91.08	< D.L.	41.33	10.76	< D.L.	36.55	< D.L.	46.82
La Majua 3	Getino Bed	< D.L.	365.98	436.91	18.33	222.35	109.84	< D.L.	29.90	< D.L.	< D.L.	23.59	< D.L.	49.26
La Majua 4	Getino Bed	< D.L.	390.23	546.95	25.06	232.66	118.04	< D.L.	46.98	16.43	< D.L.	54.15	< D.L.	57.64
La Majua 5	Getino Bed	< D.L.	< D.L.	361.18	< D.L.	197.43	103.42	< D.L.	40.60	14.82	< D.L.	17.92	< D.L.	48.32
La Majua 6	Getino Bed	< D.L.	563.10	713.08	< D.L.	292.10	126.13	< D.L.	71.55	20.16	< D.L.	84.48	< D.L.	68.93
La Majua 7	Getino Bed	< D.L.	499.28	456.30	< D.L.	173.76	81.38	< D.L.	32.81	< D.L.	< D.L.	70.68	< D.L.	49.00
La Majua 8	Getino Bed	< D.L.	629.47	764.99	< D.L.	265.87	128.60	< D.L.	88.06	15.06	< D.L.	173.78	4.92	63.89
La Majua 9	Getino Bed	< D.L.	< D.L.	430.65	< D.L.	269.05	147.47	< D.L.	47.19	13.21	< D.L.	48.51	< D.L.	66.40
La Majua 10	Getino Bed	< D.L.	516.15	543.44	< D.L.	218.34	99.53	< D.L.	43.24	< D.L.	< D.L.	37.33	< D.L.	52.10
La Majua 11	Getino Bed	< D.L.	< D.L.	692.61	< D.L.	247.32	157.25	< D.L.	63.16	18.04	< D.L.	51.91	< D.L.	69.18
La Majua 12	Getino Bed	5948.76	370.55	460.06	55.01	159.58	115.19	< D.L.	43.32	10.86	< D.L.	60.57	< D.L.	51.47
La Majua 13	Getino Bed	< D.L.	2136.46	883.91	< D.L.	387.55	114.09	< D.L.	481.74	< D.L.	61.95	87.85	< D.L.	26.01
La Majua 14	Getino Bed	< D.L.	416.93	1393.45	< D.L.	400.72	84.65	< D.L.	861.55	< D.L.	95.12	82.67	< D.L.	33.61
La Majua 15	Getino Bed	< D.L.	431.78	721.93	< D.L.	194.21	112.87	< D.L.	92.82	16.67	< D.L.	57.89	3.34	58.94
La Majua 16	Getino Bed	< D.L.	357.03	677.66	< D.L.	249.43	127.49	< D.L.	72.59	12.29	< D.L.	132.49	3.03	76.82
La Majua 17	Getino Bed	< D.L.	< D.L.	516.15	16.21	217.51	129.34	< D.L.	31.85	< D.L.	< D.L.	52.53	< D.L.	70.34
La Majua 18	Getino Bed	< D.L.	998.62	1043.11	< D.L.	277.32	125.83	< D.L.	153.77	30.80	< D.L.	120.00	3.77	54.66
La Majua 19	Getino Bed	< D.L.	< D.L.	576.85	23.11	256.59	166.33	< D.L.	74.33	13.65	< D.L.	38.32	< D.L.	97.28
La Majua 20	Getino Bed	1575.21	< D.L.	885.87	< D.L.	239.33	81.78	< D.L.	199.15	< D.L.	< D.L.	62.90	4.07	< D.L.
La Majua 21	Getino Bed	< D.L.	< D.L.	1177.47	< D.L.	139.35	< D.L.	< D.L.	384.69	< D.L.	< D.L.	54.79	3.55	< D.L.
La Majua 22	Getino Bed	< D.L.	< D.L.	564.92	< D.L.	145.46	25.55	< D.L.	95.81	< D.L.	< D.L.	27.66	2.57	< D.L.
La Majua 23	Getino Bed	< D.L.	< D.L.	723.72	< D.L.	289.88	110.01	< D.L.	164.38	< D.L.	< D.L.	49.91	3.23	26.13
La Majua 24	Getino Bed	< D.L.	388.05	668.01	< D.L.	204.46	108.40	< D.L.	134.46	15.75	< D.L.	41.46	< D.L.	34.77
La Majua 25	Getino Bed	392.22	996.33	746.35	< D.L.	224.18	111.67	< D.L.	135.43	< D.L.	< D.L.	82.90	3.23	25.98

Sample	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
La Majua 1	Barrios Fm	177.16	68.80	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	2189.89	24.20
La Majua 2	Getino Bed	269.28	284.73	18.22	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	1049.26	< D.L.
La Majua 3	Getino Bed	257.09	222.20	26.50	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	282.62	< D.L.
La Majua 4	Getino Bed	284.62	258.47	32.43	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	10.83	417.33	< D.L.
La Majua 5	Getino Bed	263.00	201.78	25.77	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	1002.84	< D.L.
La Majua 6	Getino Bed	326.57	316.81	55.57	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	20.09	< D.L.	19.57	312.81	31.46
La Majua 7	Getino Bed	251.42	247.22	25.24	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
La Majua 8	Getino Bed	331.58	299.50	43.78	< D.L.	< D.L.	46.74	< D.L.	< D.L.	< D.L.	45.21	33.59	469.41	31.83
La Majua 9	Getino Bed	340.88	318.08	33.63	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	709.58	< D.L.
La Majua 10	Getino Bed	279.22	194.91	28.30	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	107.02	21.08
La Majua 11	Getino Bed	398.39	283.11	48.51	< D.L.	< D.L.	< D.L.	< D.L.	28.10	< D.L.	< D.L.	12.12	159.62	< D.L.
La Majua 12	Getino Bed	285.11	337.78	46.13	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	99.67	21.47
La Majua 13	Getino Bed	293.23	271.28	27.62	< D.L.	< D.L.	131.00	15.23	< D.L.	51.93	94.23	83.66	600.11	< D.L.
La Majua 14	Getino Bed	398.95	247.04	42.71	< D.L.	21.45	202.17	26.53	52.51	80.36	143.38	108.82	1355.92	< D.L.
La Majua 15	Getino Bed	312.16	271.98	36.34	< D.L.	< D.L.	52.38	< D.L.	< D.L.	20.17	35.42	33.25	266.99	< D.L.
La Majua 16	Getino Bed	329.33	315.77	41.15	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	33.39	< D.L.	16.49	379.01	< D.L.
La Majua 17	Getino Bed	286.79	351.95	34.88	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	115.04	26.39
La Majua 18	Getino Bed	293.07	217.28	28.16	< D.L.	< D.L.	106.93	< D.L.	41.16	55.71	88.15	71.37	555.90	50.68
La Majua 19	Getino Bed	414.74	336.80	46.19	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	249.86	22.20
La Majua 20	Getino Bed	154.05	294.34	22.71	< D.L.	< D.L.	85.88	< D.L.	< D.L.	39.72	78.89	61.58	512.49	< D.L.
La Majua 21	Getino Bed	158.95	65.69	6.71	< D.L.	< D.L.	115.65	< D.L.	34.77	59.80	107.65	87.51	533.13	< D.L.
La Majua 22	Getino Bed	180.14	172.75	15.96	< D.L.	< D.L.	54.27	< D.L.	< D.L.	< D.L.	44.68	36.28	158.72	< D.L.
La Majua 23	Getino Bed	202.38	268.51	23.50	< D.L.	< D.L.	49.72	< D.L.	< D.L.	35.27	77.23	52.97	357.66	31.34
La Majua 24	Getino Bed	201.85	514.19	25.80	< D.L.	< D.L.	62.36	< D.L.	31.09	40.74	53.53	45.80	306.61	< D.L.
La Majua 25	Getino Bed	185.64	365.65	24.20	< D.L.	< D.L.	60.36	< D.L.	< D.L.	33.39	63.86	48.85	433.89	41.49

Sample	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
La Majua 1	Barrios Fm	< D.L.	< D.L.	< D.L.	< D.L.	4.86	< D.L.
La Majua 2	Getino Bed	< D.L.	6.54	< D.L.	< D.L.	9.72	7.22
La Majua 3	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	12.56	< D.L.
La Majua 4	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	8.50	< D.L.
La Majua 5	Getino Bed	< D.L.	5.71	< D.L.	< D.L.	5.81	< D.L.
La Majua 6	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	6.97	< D.L.
La Majua 7	Getino Bed	< D.L.	5.50	< D.L.	< D.L.	6.92	< D.L.
La Majua 8	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
La Majua 9	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	10.84	< D.L.
La Majua 10	Getino Bed	< D.L.	5.41	< D.L.	< D.L.	5.34	< D.L.
La Majua 11	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	6.29	< D.L.
La Majua 12	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	13.72	< D.L.
La Majua 13	Getino Bed	< D.L.	10.12	< D.L.	< D.L.	< D.L.	< D.L.
La Majua 14	Getino Bed	< D.L.	18.63	< D.L.	70.51	41.66	< D.L.
La Majua 15	Getino Bed	< D.L.	7.16	< D.L.	< D.L.	< D.L.	< D.L.
La Majua 16	Getino Bed	< D.L.	5.86	< D.L.	< D.L.	4.96	< D.L.
La Majua 17	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	9.72	7.00
La Majua 18	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
La Majua 19	Getino Bed	< D.L.	6.18	< D.L.	< D.L.	18.54	< D.L.
La Majua 20	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
La Majua 21	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
La Majua 22	Getino Bed	< D.L.	8.54	< D.L.	< D.L.	< D.L.	< D.L.
La Majua 23	Getino Bed	< D.L.	11.10	< D.L.	< D.L.	< D.L.	< D.L.
La Majua 24	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
La Majua 25	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	6.07

Sample	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
La Majua 26	Getino Bed	< D.L.	< D.L.	493.49	< D.L.	149.37	55.97	< D.L.	69.65	< D.L.	< D.L.	23.09	< D.L.	35.14
La Majua 27	Getino Bed	< D.L.	< D.L.	638.13	< D.L.	158.22	23.53	< D.L.	103.54	22.78	< D.L.	36.76	< D.L.	< D.L.
La Majua 28	Getino Bed	1706.01	1153.53	934.60	< D.L.	182.02	72.92	< D.L.	194.33	44.57	< D.L.	91.55	3.83	< D.L.
La Majua 29	Getino Bed	< D.L.	662.63	62.47	< D.L.	45.90	< D.L.	< D.L.	39.94	20.59	< D.L.	55.75	< D.L.	< D.L.
La Majua 30	Getino Bed	< D.L.	2222.04	< D.L.	35.70	61.45	< D.L.	< D.L.	77.30	14.23	< D.L.	117.41	2.14	< D.L.
La Majua 31	Getino Bed	< D.L.	347.06	< D.L.	15.23	34.35	< D.L.	< D.L.	26.57	9.71	< D.L.	12.70	< D.L.	< D.L.
La Majua 32	Bernesga Mb.	< D.L.	< D.L.	608.01	< D.L.	218.81	135.97	< D.L.	62.49	15.72	< D.L.	52.63	2.23	141.39
La Majua 33	Bernesga Mb.	< D.L.	< D.L.	663.58	< D.L.	225.27	122.71	< D.L.	101.37	20.95	< D.L.	65.28	< D.L.	134.89
La Majua 34	Bernesga Mb.	< D.L.	< D.L.	673.38	< D.L.	217.71	130.48	< D.L.	96.52	27.69	< D.L.	58.33	< D.L.	132.70
La Majua 35	Bernesga Mb.	< D.L.	< D.L.	482.94	< D.L.	214.29	127.11	< D.L.	84.84	35.08	< D.L.	56.58	< D.L.	144.28
La Majua 36	Bernesga Mb.	< D.L.	519.23	817.19	< D.L.	215.35	120.21	< D.L.	116.81	59.75	< D.L.	78.26	< D.L.	116.08
La Majua 37	Bernesga Mb.	< D.L.	< D.L.	628.27	< D.L.	212.64	136.44	< D.L.	80.66	25.65	< D.L.	38.98	2.59	147.90
La Majua 38	Bernesga Mb.	< D.L.	< D.L.	577.87	17.15	213.00	132.23	< D.L.	66.48	16.89	< D.L.	29.61	< D.L.	155.87
La Majua 39	Bernesga Mb.	< D.L.	< D.L.	612.02	19.05	221.58	129.57	< D.L.	72.67	28.78	< D.L.	37.96	< D.L.	143.01
La Majua 40	Bernesga Mb.	< D.L.	804.63	592.19	< D.L.	203.49	140.41	< D.L.	68.20	12.99	< D.L.	28.97	< D.L.	153.30
La Majua 41	Bernesga Mb.	< D.L.	605.29	559.38	17.54	204.97	149.29	< D.L.	66.88	< D.L.	< D.L.	20.41	< D.L.	158.80
La Majua 42	Bernesga Mb.	< D.L.	< D.L.	562.57	< D.L.	209.66	141.56	< D.L.	50.21	10.02	< D.L.	23.87	< D.L.	156.01
La Majua 43	Bernesga Mb.	< D.L.	< D.L.	430.26	22.18	190.65	139.98	< D.L.	59.71	11.01	< D.L.	20.14	< D.L.	148.01
La Majua 44	Bernesga Mb.	< D.L.	< D.L.	676.82	< D.L.	208.08	111.75	< D.L.	96.31	33.25	< D.L.	39.61	< D.L.	136.94
La Majua 45	Bernesga Mb.	< D.L.	< D.L.	478.67	17.14	177.99	132.25	< D.L.	62.81	14.58	< D.L.	20.74	< D.L.	142.36
La Majua 46	Bernesga Mb.	< D.L.	< D.L.	431.55	< D.L.	191.22	137.78	< D.L.	52.69	13.18	< D.L.	19.15	< D.L.	155.15
La Majua 47	Bernesga Mb.	< D.L.	< D.L.	824.38	< D.L.	189.31	124.04	< D.L.	220.70	59.66	98.83	39.81	2.66	118.31
La Majua 48	Bernesga Mb.	< D.L.	< D.L.	670.53	24.79	186.74	134.49	126.70	176.10	43.04	55.64	20.41	< D.L.	144.64
La Majua 49	Bernesga Mb.	< D.L.	< D.L.	701.68	< D.L.	180.21	120.97	177.25	131.50	43.75	71.52	24.55	< D.L.	134.54
La Majua 50	Bernesga Mb.	< D.L.	< D.L.	743.70	39.96	170.48	112.41	< D.L.	234.04	68.46	113.51	28.08	< D.L.	127.51

Sample	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
La Majua 26	Getino Bed	170.77	160.00	12.57	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	21.92	40.23	20.88	99.01	< D.L.
La Majua 27	Getino Bed	158.40	156.78	14.93	< D.L.	< D.L.	65.38	< D.L.	< D.L.	31.58	55.97	43.99	213.62	29.85
La Majua 28	Getino Bed	161.26	191.54	20.24	< D.L.	< D.L.	76.68	< D.L.	< D.L.	47.84	106.67	72.03	413.42	44.09
La Majua 29	Getino Bed	157.66	142.40	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	18.22	< D.L.	24.39	2840.69	< D.L.
La Majua 30	Getino Bed	159.55	128.40	0.87	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	28.17	65.74	83.13	15648.45	24.70
La Majua 31	Getino Bed	165.25	47.40	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	13.77	3913.62	34.81
La Majua 32	Bernesga Mb.	240.92	134.31	19.99	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	341.92	< D.L.
La Majua 33	Bernesga Mb.	228.49	112.74	17.71	< D.L.	< D.L.	37.25	< D.L.	< D.L.	20.09	38.27	26.33	498.95	25.78
La Majua 34	Bernesga Mb.	244.71	130.27	19.43	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	16.76	343.04	< D.L.
La Majua 35	Bernesga Mb.	230.03	115.43	18.26	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	19.65	< D.L.	23.00	1356.70	33.99
La Majua 36	Bernesga Mb.	219.08	102.18	15.08	< D.L.	< D.L.	59.16	12.55	< D.L.	33.26	64.30	51.12	689.61	29.99
La Majua 37	Bernesga Mb.	229.05	118.33	18.41	< D.L.	< D.L.	< D.L.	< D.L.	23.33	< D.L.	< D.L.	11.67	470.86	25.53
La Majua 38	Bernesga Mb.	223.46	118.08	19.05	< D.L.	< D.L.	< D.L.	< D.L.	25.04	< D.L.	< D.L.	< D.L.	540.50	< D.L.
La Majua 39	Bernesga Mb.	223.49	127.56	18.98	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	14.99	463.67	28.26
La Majua 40	Bernesga Mb.	219.12	115.68	18.45	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	416.10	< D.L.
La Majua 41	Bernesga Mb.	220.44	119.98	19.58	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	421.58	< D.L.
La Majua 42	Bernesga Mb.	225.19	123.64	18.98	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	462.89	< D.L.
La Majua 43	Bernesga Mb.	216.34	141.63	20.83	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	1602.27	24.37
La Majua 44	Bernesga Mb.	213.46	108.71	17.45	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	24.36	42.03	33.81	614.36	31.82
La Majua 45	Bernesga Mb.	216.55	136.79	18.00	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	12.23	993.05	< D.L.
La Majua 46	Bernesga Mb.	213.65	123.37	19.41	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	975.13	22.44
La Majua 47	Bernesga Mb.	180.92	108.53	17.78	< D.L.	< D.L.	59.24	11.81	< D.L.	30.43	84.54	55.11	667.14	31.73
La Majua 48	Bernesga Mb.	183.96	104.30	16.63	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	21.69	426.83	< D.L.
La Majua 49	Bernesga Mb.	181.69	115.50	18.11	< D.L.	< D.L.	41.27	< D.L.	< D.L.	26.23	37.17	33.91	480.74	< D.L.
La Majua 50	Bernesga Mb.	182.94	115.14	16.46	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	25.39	42.54	31.42	478.13	< D.L.

Sample	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
La Majua 26	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
La Majua 27	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
La Majua 28	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
La Majua 29	Getino Bed	< D.L.	5.42	< D.L.	< D.L.	< D.L.	< D.L.
La Majua 30	Getino Bed	< D.L.	5.84	< D.L.	< D.L.	< D.L.	< D.L.
La Majua 31	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
La Majua 32	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	13.98	10.59
La Majua 33	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	6.46	10.40
La Majua 34	Bernesga Mb.	< D.L.	5.39	< D.L.	< D.L.	11.85	9.51
La Majua 35	Bernesga Mb.	< D.L.	5.87	< D.L.	< D.L.	10.40	7.65
La Majua 36	Bernesga Mb.	< D.L.	7.58	< D.L.	< D.L.	< D.L.	< D.L.
La Majua 37	Bernesga Mb.	< D.L.	6.29	< D.L.	< D.L.	14.56	9.12
La Majua 38	Bernesga Mb.	< D.L.	6.38	< D.L.	< D.L.	17.50	10.94
La Majua 39	Bernesga Mb.	< D.L.	6.45	< D.L.	< D.L.	13.24	11.38
La Majua 40	Bernesga Mb.	< D.L.	6.42	< D.L.	< D.L.	14.38	11.16
La Majua 41	Bernesga Mb.	< D.L.	5.68	< D.L.	< D.L.	17.32	10.58
La Majua 42	Bernesga Mb.	< D.L.	6.18	< D.L.	< D.L.	18.79	6.92
La Majua 43	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	19.53	7.93
La Majua 44	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	8.60	< D.L.
La Majua 45	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	15.74	7.90
La Majua 46	Bernesga Mb.	< D.L.	7.62	< D.L.	< D.L.	17.56	< D.L.
La Majua 47	Bernesga Mb.	< D.L.	7.18	< D.L.	< D.L.	< D.L.	< D.L.
La Majua 48	Bernesga Mb.	< D.L.	7.61	< D.L.	< D.L.	11.17	9.46
La Majua 49	Bernesga Mb.	< D.L.	6.15	< D.L.	< D.L.	7.76	< D.L.
La Majua 50	Bernesga Mb.	< D.L.	7.76	< D.L.	< D.L.	6.48	8.13

Sample	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
La Majua 51	Bernesga Mb.	< D.L.	< D.L.	640.21	24.20	191.26	123.99	< D.L.	74.53	29.74	< D.L.	21.27	< D.L.	140.53
La Majua 52	Bernesga Mb.	< D.L.	< D.L.	699.82	25.39	174.70	123.76	< D.L.	205.25	55.63	84.75	23.99	< D.L.	126.99
La Majua 53	Bernesga Mb.	< D.L.	< D.L.	713.24	< D.L.	201.67	127.74	< D.L.	114.45	26.10	52.80	26.48	< D.L.	138.30
La Majua 54	Bernesga Mb.	< D.L.	< D.L.	665.56	< D.L.	194.09	123.99	< D.L.	103.33	24.66	38.38	21.04	< D.L.	143.59
La Majua 55	Bernesga Mb.	< D.L.	5726.13	712.98	< D.L.	188.06	131.34	< D.L.	135.54	33.72	73.67	38.21	< D.L.	133.73
La Majua 56	Bernesga Mb.	< D.L.	< D.L.	701.67	< D.L.	204.83	122.60	< D.L.	98.09	40.87	40.22	27.39	2.52	131.15
La Majua 57	Bernesga Mb.	< D.L.	< D.L.	640.24	20.80	187.29	130.45	< D.L.	87.59	28.50	35.02	16.17	< D.L.	135.56
La Majua 58	Bernesga Mb.	< D.L.	< D.L.	775.05	25.23	173.56	109.32	< D.L.	209.72	66.46	87.24	28.91	< D.L.	123.49
La Majua 59	Bernesga Mb.	< D.L.	< D.L.	704.25	< D.L.	193.29	117.64	< D.L.	112.15	32.43	46.31	23.87	2.74	137.48
La Majua 60	Bernesga Mb.	< D.L.	< D.L.	760.84	< D.L.	199.39	111.24	< D.L.	171.77	41.57	75.71	30.43	< D.L.	132.64
La Majua 61	Bernesga Mb.	< D.L.	< D.L.	630.31	< D.L.	195.67	123.72	< D.L.	78.68	24.68	< D.L.	18.41	< D.L.	147.50
La Majua 62	Bernesga Mb.	< D.L.	< D.L.	683.88	< D.L.	180.27	124.36	145.09	126.35	26.36	52.02	22.04	2.21	138.46
La Majua 63	Bernesga Mb.	< D.L.	< D.L.	657.87	< D.L.	193.52	125.66	< D.L.	102.31	31.95	45.27	18.07	< D.L.	145.79
La Majua 64	Bernesga Mb.	< D.L.	< D.L.	706.05	< D.L.	195.73	124.57	< D.L.	122.30	54.96	61.55	24.60	< D.L.	146.84
La Majua 65	Bernesga Mb.	< D.L.	< D.L.	637.18	< D.L.	190.61	125.67	< D.L.	77.72	37.66	< D.L.	18.00	< D.L.	145.60
La Majua 66	Bernesga Mb.	< D.L.	< D.L.	660.64	21.89	181.94	123.30	< D.L.	93.43	38.95	59.70	23.00	< D.L.	133.53
La Majua 67	Bernesga Mb.	< D.L.	< D.L.	633.91	< D.L.	184.82	132.20	< D.L.	70.57	26.19	< D.L.	19.35	< D.L.	143.53
La Majua 68	Bernesga Mb.	< D.L.	380.13	620.48	< D.L.	199.38	134.83	< D.L.	76.86	14.10	< D.L.	17.61	< D.L.	151.17
La Majua 69	Bernesga Mb.	< D.L.	369.78	736.58	< D.L.	201.07	117.60	< D.L.	99.80	30.83	39.04	31.14	2.47	130.61
La Majua 70	Bernesga Mb.	< D.L.	392.56	692.31	23.02	194.39	102.71	< D.L.	95.49	34.05	< D.L.	30.22	< D.L.	131.50

Sample	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
La Majua 51	Bernesga Mb.	189.96	145.13	20.40	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	26.90	< D.L.	23.39	423.21	< D.L.
La Majua 52	Bernesga Mb.	185.82	131.51	17.29	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	28.03	403.06	< D.L.
La Majua 53	Bernesga Mb.	181.13	109.52	17.78	< D.L.	< D.L.	< D.L.	< D.L.	28.76	23.75	40.91	34.30	500.04	< D.L.
La Majua 54	Bernesga Mb.	186.32	125.87	18.91	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	25.33	426.26	36.57
La Majua 55	Bernesga Mb.	183.11	120.17	21.92	< D.L.	< D.L.	58.14	< D.L.	< D.L.	24.27	53.61	40.70	558.59	31.49
La Majua 56	Bernesga Mb.	188.79	129.60	19.25	< D.L.	< D.L.	33.79	< D.L.	< D.L.	23.45	32.58	31.66	473.06	24.82
La Majua 57	Bernesga Mb.	186.52	133.48	18.90	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	12.67	347.85	< D.L.
La Majua 58	Bernesga Mb.	181.05	129.16	16.82	< D.L.	< D.L.	46.93	< D.L.	< D.L.	24.73	49.36	40.28	516.86	< D.L.
La Majua 59	Bernesga Mb.	183.61	121.07	19.89	< D.L.	< D.L.	54.11	< D.L.	< D.L.	< D.L.	40.49	31.60	480.82	30.19
La Majua 60	Bernesga Mb.	179.24	101.86	16.54	< D.L.	< D.L.	60.76	< D.L.	< D.L.	24.25	50.40	41.51	571.65	< D.L.
La Majua 61	Bernesga Mb.	183.62	135.78	18.91	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	13.98	352.83	24.81
La Majua 62	Bernesga Mb.	185.35	134.37	18.31	< D.L.	< D.L.	41.34	< D.L.	< D.L.	20.77	< D.L.	25.88	450.98	< D.L.
La Majua 63	Bernesga Mb.	185.17	138.69	20.66	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	19.03	< D.L.	22.19	413.05	26.12
La Majua 64	Bernesga Mb.	181.25	116.37	18.02	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	24.33	51.94	30.10	512.65	< D.L.
La Majua 65	Bernesga Mb.	187.09	143.12	19.60	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	12.13	348.96	< D.L.
La Majua 66	Bernesga Mb.	187.21	152.00	18.03	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	21.04	47.06	28.15	468.42	< D.L.
La Majua 67	Bernesga Mb.	183.84	138.09	19.34	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	31.44	24.05	421.06	< D.L.
La Majua 68	Bernesga Mb.	183.44	144.36	21.40	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	14.08	360.92	< D.L.
La Majua 69	Bernesga Mb.	183.29	134.30	17.01	< D.L.	< D.L.	< D.L.	< D.L.	27.37	24.41	35.77	33.19	474.51	33.34
La Majua 70	Bernesga Mb.	184.29	154.27	19.21	< D.L.	< D.L.	34.91	< D.L.	< D.L.	29.93	42.44	35.04	536.49	28.63

Sample	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
La Majua 51	Bernesga Mb.	< D.L.	7.17	< D.L.	< D.L.	14.15	7.83
La Majua 52	Bernesga Mb.	< D.L.	8.42	< D.L.	< D.L.	7.04	7.71
La Majua 53	Bernesga Mb.	< D.L.	6.34	< D.L.	< D.L.	5.22	7.98
La Majua 54	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	10.18	9.26
La Majua 55	Bernesga Mb.	< D.L.	8.00	< D.L.	< D.L.	5.93	10.71
La Majua 56	Bernesga Mb.	< D.L.	5.90	< D.L.	< D.L.	9.90	12.20
La Majua 57	Bernesga Mb.	< D.L.	8.06	< D.L.	< D.L.	14.49	10.59
La Majua 58	Bernesga Mb.	< D.L.	6.34	< D.L.	< D.L.	5.10	9.82
La Majua 59	Bernesga Mb.	< D.L.	8.17	< D.L.	< D.L.	8.40	8.25
La Majua 60	Bernesga Mb.	< D.L.	9.25	< D.L.	< D.L.	< D.L.	8.22
La Majua 61	Bernesga Mb.	< D.L.	7.23	< D.L.	< D.L.	13.09	11.23
La Majua 62	Bernesga Mb.	< D.L.	9.61	< D.L.	< D.L.	7.64	11.01
La Majua 63	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	13.62	9.79
La Majua 64	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	6.49	10.04
La Majua 65	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	13.55	11.76
La Majua 66	Bernesga Mb.	< D.L.	5.74	< D.L.	< D.L.	10.56	9.71
La Majua 67	Bernesga Mb.	< D.L.	7.33	< D.L.	< D.L.	12.09	8.67
La Majua 68	Bernesga Mb.	< D.L.	7.70	< D.L.	< D.L.	13.16	9.30
La Majua 69	Bernesga Mb.	< D.L.	7.48	< D.L.	< D.L.	5.38	< D.L.
La Majua 70	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	7.35	10.06

5. Geochemical Results – Sena de Luna section

5.1 Major elements

Sample	Formation	NaO Wt% (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO (Wt%)	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
Sena 1	Barrios Fm	0.38	< D.L.	1.71	88.75	0.37	< D.L.	0.36	0.06	3.17
Sena 2	Getino Bed	0.40	< D.L.	1.95	86.00	0.43	< D.L.	0.20	0.06	4.03
Sena 3	Getino Bed	0.48	< D.L.	3.02	86.90	0.74	< D.L.	0.18	0.06	3.22
Sena 4	Getino Bed	0.45	< D.L.	2.30	86.41	0.61	< D.L.	0.15	0.05	3.29
Sena 5	Getino Bed	0.48	< D.L.	3.05	86.01	0.72	0.24	0.21	0.06	3.39
Sena 6	Getino Bed	0.70	< D.L.	7.45	80.78	1.50	< D.L.	0.66	0.06	3.50
Sena 7	Getino Bed	0.69	< D.L.	6.24	77.11	1.47	< D.L.	0.53	0.08	4.37
Sena 8	Getino Bed	0.75	< D.L.	7.76	77.92	1.71	< D.L.	0.63	0.06	3.51
Sena 9	Getino Bed	0.84	< D.L.	9.33	78.66	2.01	< D.L.	0.69	0.05	3.31
Sena 10	Getino Bed	0.84	< D.L.	9.72	80.54	2.01	< D.L.	0.73	0.05	3.27
Sena 11	Bernesga Mb.	1.46	0.94	25.13	59.72	4.27	< D.L.	1.00	0.06	4.52
Sena 12	Bernesga Mb.	1.71	1.07	29.39	56.75	5.16	< D.L.	1.13	0.06	5.21
Sena 13	Bernesga Mb.	1.54	< D.L.	24.22	60.13	4.55	< D.L.	1.08	0.06	3.82
Sena 14	Bernesga Mb.	1.50	1.04	26.26	55.66	4.40	< D.L.	1.09	0.20	5.28
Sena 15	Bernesga Mb.	1.75	< D.L.	27.68	55.06	5.30	< D.L.	1.17	0.06	4.41
Sena 16	Bernesga Mb.	1.17	< D.L.	23.49	58.91	3.20	< D.L.	0.87	0.06	7.90
Sena 17	Bernesga Mb.	1.46	0.95	26.94	57.70	4.25	< D.L.	1.10	0.06	3.92
Sena 18	Bernesga Mb.	1.69	0.96	28.72	51.85	5.10	< D.L.	1.18	0.06	5.52
Sena 19	Bernesga Mb.	1.43	< D.L.	25.73	55.05	4.15	< D.L.	1.07	0.06	4.64
Sena 20	Bernesga Mb.	1.57	0.99	27.92	53.42	4.66	< D.L.	1.14	0.06	4.44
Sena 21	Bernesga Mb.	1.52	1.13	30.41	56.38	4.46	< D.L.	1.11	0.06	3.85
Sena 22	Bernesga Mb.	1.55	1.05	29.04	53.90	4.60	< D.L.	1.14	0.06	4.24
Sena 23	Bernesga Mb.	1.46	< D.L.	29.58	49.47	4.25	< D.L.	1.15	0.11	7.33
Sena 24	Bernesga Mb.	1.51	0.96	29.25	52.39	4.43	< D.L.	1.21	0.06	4.26
Sena 25	Bernesga Mb.	1.51	1.09	31.21	54.87	4.44	< D.L.	1.24	0.06	3.98

Sample	Formation	NaO Wt% (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO (Wt%)	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
Sena 26	Bernesga Mb.	1.44	1.00	27.96	52.51	4.18	< D.L.	1.18	0.06	3.97
Sena 27	Bernesga Mb.	1.42	< D.L.	27.23	53.95	4.11	< D.L.	1.18	0.06	4.47
Sena 28	Bernesga Mb.	1.46	0.96	26.63	53.19	4.24	< D.L.	1.20	0.06	3.81
Sena 29	Bernesga Mb.	1.47	1.11	29.68	55.18	4.30	< D.L.	1.14	0.06	3.79
Sena 30	Bernesga Mb.	1.53	1.17	30.69	55.76	4.51	< D.L.	1.18	0.06	3.87
Sena 31	Bernesga Mb.	1.43	1.12	30.23	53.91	4.14	< D.L.	1.22	0.06	4.13
Sena 32	Bernesga Mb.	1.39	0.96	27.50	52.22	4.02	< D.L.	1.21	0.06	3.81
Sena 33	Bernesga Mb.	1.37	1.01	28.19	53.21	3.92	< D.L.	1.18	0.06	3.92
Sena 34	Bernesga Mb.	1.45	1.00	29.17	52.42	4.21	< D.L.	1.06	0.06	5.14
Sena 35	Bernesga Mb.	1.45	1.07	30.51	53.42	4.22	< D.L.	1.13	0.06	3.84
Sena 36	Bernesga Mb.	1.51	0.99	27.83	52.44	4.42	< D.L.	1.18	0.06	3.86
Sena 37	Bernesga Mb.	1.46	1.01	31.22	53.10	4.25	< D.L.	1.19	0.06	4.04
Sena 38	Bernesga Mb.	1.39	1.01	28.34	53.08	3.99	< D.L.	1.17	0.06	3.87
Sena 39	Bernesga Mb.	1.42	1.07	32.25	53.26	4.11	< D.L.	1.11	0.29	6.50
Sena 40	Bernesga Mb.	1.44	0.96	29.42	55.26	4.19	< D.L.	1.18	0.06	3.94
Sena 41	Bernesga Mb.	1.48	1.02	30.77	55.41	4.32	< D.L.	1.21	0.06	3.83
Sena 42	Bernesga Mb.	1.50	0.99	29.24	52.84	4.39	< D.L.	1.18	0.06	3.94
Sena 43	Bernesga Mb.	1.51	< D.L.	28.40	52.01	4.42	< D.L.	1.17	0.06	4.39
Sena 44	Bernesga Mb.	1.43	1.00	30.49	54.96	4.17	< D.L.	1.21	0.06	4.34
Sena 45	Bernesga Mb.	1.36	1.01	28.73	52.84	3.89	< D.L.	1.15	0.06	3.60
Sena 46	Bernesga Mb.	1.34	0.98	30.46	48.35	3.83	< D.L.	1.10	0.11	9.43
Sena 47	Bernesga Mb.	1.34	< D.L.	30.74	49.30	3.83	< D.L.	1.12	0.11	9.06
Sena 48	Bernesga Mb.	1.38	0.92	27.58	51.22	3.98	< D.L.	1.20	0.06	4.35
Sena 49	Bernesga Mb.	1.37	1.02	30.81	52.41	3.93	< D.L.	1.19	0.06	5.81
Sena 50	Bernesga Mb.	1.34	< D.L.	28.46	53.14	3.84	< D.L.	1.17	0.06	3.60

Sample	Formation	NaO Wt% (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO (Wt%)	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
Sena 51	Bernesga Mb.	1.32	0.93	28.84	52.65	3.74	< D.L.	1.18	0.06	3.52
Sena 52	Bernesga Mb.	1.33	< D.L.	28.40	51.75	3.77	< D.L.	1.21	0.06	4.06
Sena 53	Bernesga Mb.	1.29	0.94	29.82	54.06	3.65	< D.L.	1.16	0.06	3.55
Sena 54	Bernesga Mb.	1.36	1.00	30.66	54.38	3.89	< D.L.	1.23	0.06	3.62
Sena 55	Bernesga Mb.	1.36	1.00	30.63	54.72	3.90	< D.L.	1.21	0.06	3.51
Sena 56	Bernesga Mb.	1.35	0.92	29.55	52.70	3.87	< D.L.	1.20	0.06	4.44
Sena 57	Bernesga Mb.	1.39	1.04	29.38	53.34	4.01	< D.L.	1.14	0.06	3.89
Sena 58	Bernesga Mb.	1.29	< D.L.	33.39	49.24	3.62	< D.L.	1.08	0.06	12.23
Sena 59	Bernesga Mb.	1.40	1.01	30.19	54.06	4.04	< D.L.	1.18	0.06	4.04
Sena 60	Bernesga Mb.	1.37	0.93	29.64	53.78	3.95	< D.L.	1.16	0.06	3.50
Sena 61	Bernesga Mb.	1.33	1.00	31.61	50.44	3.78	< D.L.	1.13	0.06	7.83
Sena 62	Bernesga Mb.	1.35	0.97	30.73	52.79	3.85	< D.L.	1.13	0.06	6.50
Sena 63	Bernesga Mb.	1.34	1.13	32.22	52.04	3.83	< D.L.	1.12	0.06	7.52
Sena 64	Bernesga Mb.	1.36	0.92	27.94	53.08	3.90	< D.L.	1.17	0.06	3.50
Sena 65	Bernesga Mb.	1.37	< D.L.	28.94	51.83	3.95	< D.L.	1.17	0.06	4.93
Sena 66	Bernesga Mb.	1.39	0.97	31.12	54.00	4.01	< D.L.	1.18	0.06	4.03
Sena 67	Bernesga Mb.	1.32	< D.L.	29.04	49.09	3.75	< D.L.	1.16	0.06	7.03
Sena 68	Bernesga Mb.	1.35	1.04	28.90	52.17	3.85	< D.L.	1.23	0.06	4.79
Sena 69	Bernesga Mb.	1.34	< D.L.	28.95	51.32	3.81	< D.L.	1.20	0.06	4.79
Sena 70	Bernesga Mb.	1.34	< D.L.	30.07	52.43	3.82	< D.L.	1.16	0.06	6.10
Sena 71	Bernesga Mb.	1.37	1.11	28.87	54.27	3.92	< D.L.	1.18	0.07	4.53
Sena 72	Bernesga Mb.	1.40	0.98	30.23	54.76	4.05	< D.L.	1.19	0.06	4.80
Sena 73	Bernesga Mb.	1.35	0.98	30.00	55.61	3.84	< D.L.	1.17	0.06	4.28
Sena 74	Bernesga Mb.	1.35	0.99	29.28	55.13	3.88	< D.L.	1.17	0.06	4.85
Sena 75	Bernesga Mb.	1.39	< D.L.	29.45	50.49	4.01	< D.L.	1.14	0.05	7.83

Sample	Formation	NaO Wt% (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO (Wt%)	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
Sena 76	Bernesga Mb.	1.30	< D.L.	31.72	47.36	3.69	< D.L.	1.05	0.16	14.58
Sena 77	Bernesga Mb.	1.40	1.01	32.54	51.14	4.06	< D.L.	1.19	0.06	6.95
Sena 78	Bernesga Mb.	1.39	< D.L.	29.08	52.25	4.00	< D.L.	1.17	0.06	5.61
Sena 79	Bernesga Mb.	1.41	< D.L.	28.80	51.11	4.07	< D.L.	1.15	0.06	5.84

5.2 Trace elements

SAMPLE	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
Sena 1	Barrios Fm	< D.L.	< D.L.	< D.L.	11.06	86.11	20.39	< D.L.	< D.L.	< D.L.	< D.L.	4.05	< D.L.	15.84
Sena 2	Getino Bed	< D.L.	< D.L.	210.45	< D.L.	151.26	16.13	< D.L.	34.66	11.11	< D.L.	39.82	< D.L.	16.65
Sena 3	Getino Bed	< D.L.	< D.L.	130.29	< D.L.	57.22	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	3.78	< D.L.	26.20
Sena 4	Getino Bed	< D.L.	< D.L.	135.30	< D.L.	48.08	< D.L.	< D.L.	< D.L.	11.22	< D.L.	8.45	< D.L.	24.04
Sena 5	Getino Bed	< D.L.	< D.L.	157.40	< D.L.	50.23	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	8.74	< D.L.	23.33
Sena 6	Getino Bed	< D.L.	< D.L.	248.86	< D.L.	94.96	41.06	< D.L.	< D.L.	11.38	< D.L.	55.74	< D.L.	45.01
Sena 7	Getino Bed	< D.L.	< D.L.	348.99	< D.L.	83.41	22.47	< D.L.	36.46	< D.L.	< D.L.	22.10	< D.L.	38.90
Sena 8	Getino Bed	< D.L.	< D.L.	283.34	< D.L.	85.50	40.36	< D.L.	< D.L.	< D.L.	< D.L.	5.03	< D.L.	48.04
Sena 9	Getino Bed	< D.L.	< D.L.	298.73	< D.L.	118.69	53.94	< D.L.	< D.L.	< D.L.	< D.L.	7.03	< D.L.	60.58
Sena 10	Getino Bed	< D.L.	< D.L.	242.86	< D.L.	117.37	57.31	< D.L.	28.03	< D.L.	< D.L.	9.14	< D.L.	64.49
Sena 11	Bernesga Mb.	< D.L.	< D.L.	503.33	< D.L.	141.28	92.90	< D.L.	51.29	27.38	< D.L.	33.60	2.36	118.54
Sena 12	Bernesga Mb.	< D.L.	< D.L.	539.50	< D.L.	165.50	116.38	< D.L.	71.38	21.51	< D.L.	25.07	< D.L.	157.80
Sena 13	Bernesga Mb.	< D.L.	< D.L.	481.87	< D.L.	147.09	103.42	< D.L.	41.65	34.29	< D.L.	21.47	< D.L.	141.09
Sena 14	Bernesga Mb.	< D.L.	< D.L.	564.21	< D.L.	195.94	90.06	117.08	81.35	40.28	< D.L.	23.50	< D.L.	136.47
Sena 15	Bernesga Mb.	< D.L.	< D.L.	487.30	< D.L.	195.85	127.25	< D.L.	46.04	26.95	< D.L.	20.20	< D.L.	174.45
Sena 16	Bernesga Mb.	< D.L.	< D.L.	661.37	< D.L.	184.35	62.51	< D.L.	70.25	36.16	< D.L.	54.41	3.71	89.48
Sena 17	Bernesga Mb.	< D.L.	< D.L.	464.67	< D.L.	196.50	111.56	< D.L.	34.43	18.50	< D.L.	10.11	< D.L.	148.89
Sena 18	Bernesga Mb.	< D.L.	< D.L.	534.78	20.70	195.03	109.17	< D.L.	59.78	41.09	< D.L.	28.95	< D.L.	166.39
Sena 19	Bernesga Mb.	< D.L.	< D.L.	512.48	< D.L.	235.38	114.93	< D.L.	54.07	32.53	< D.L.	19.35	2.80	142.49
Sena 20	Bernesga Mb.	< D.L.	< D.L.	528.63	< D.L.	224.89	133.45	< D.L.	63.98	18.06	< D.L.	17.79	< D.L.	168.23
Sena 21	Bernesga Mb.	< D.L.	< D.L.	458.14	< D.L.	233.75	132.34	58.86	57.42	13.33	< D.L.	16.22	< D.L.	177.16
Sena 22	Bernesga Mb.	< D.L.	< D.L.	511.15	< D.L.	219.65	138.94	< D.L.	77.80	34.83	< D.L.	21.87	< D.L.	173.46
Sena 23	Bernesga Mb.	< D.L.	< D.L.	626.10	< D.L.	263.88	108.70	< D.L.	70.71	44.42	< D.L.	30.09	< D.L.	152.82
Sena 24	Bernesga Mb.	< D.L.	< D.L.	525.48	< D.L.	240.61	130.88	< D.L.	65.12	36.63	< D.L.	16.08	< D.L.	170.97
Sena 25	Bernesga Mb.	< D.L.	< D.L.	484.11	19.06	260.83	134.57	< D.L.	39.66	27.74	< D.L.	10.15	< D.L.	174.55

SAMPLE	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
Sena 1	Barrios Fm	267.84	647.76	4.05	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	620.06	< D.L.
Sena 2	Getino Bed	217.10	207.59	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Sena 3	Getino Bed	180.33	258.46	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	24.23
Sena 4	Getino Bed	180.49	80.81	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Sena 5	Getino Bed	179.95	136.49	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	21.59
Sena 6	Getino Bed	227.18	681.89	12.77	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	8.01	< D.L.
Sena 7	Getino Bed	208.45	525.77	7.61	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	10.98	107.51	< D.L.
Sena 8	Getino Bed	196.34	376.56	9.56	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Sena 9	Getino Bed	190.35	198.10	12.63	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Sena 10	Getino Bed	190.57	206.50	14.07	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Sena 11	Bernesga Mb.	214.68	243.52	18.62	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	31.31	13.53	350.64	< D.L.
Sena 12	Bernesga Mb.	236.75	201.55	20.08	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	19.93	36.99	25.44	615.83	< D.L.
Sena 13	Bernesga Mb.	207.78	275.33	20.67	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	356.04	< D.L.
Sena 14	Bernesga Mb.	198.21	251.18	19.24	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	20.23	37.38	26.30	583.96	< D.L.
Sena 15	Bernesga Mb.	213.13	217.95	21.76	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	20.78	511.10	32.68
Sena 16	Bernesga Mb.	185.74	230.75	15.51	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	30.86	42.84	35.61	466.66	< D.L.
Sena 17	Bernesga Mb.	197.94	203.12	21.33	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	349.59	< D.L.
Sena 18	Bernesga Mb.	201.20	172.18	21.72	< D.L.	< D.L.	< D.L.	< D.L.	24.46	< D.L.	42.42	25.55	617.82	< D.L.
Sena 19	Bernesga Mb.	200.26	181.32	19.82	3.75	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	13.09	376.19	< D.L.
Sena 20	Bernesga Mb.	204.87	156.10	21.51	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	13.14	456.15	< D.L.
Sena 21	Bernesga Mb.	204.67	160.95	22.24	4.36	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	323.02	20.79
Sena 22	Bernesga Mb.	206.92	145.87	21.33	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	14.54	480.51	23.04
Sena 23	Bernesga Mb.	202.45	136.41	20.63	4.06	< D.L.	35.37	< D.L.	< D.L.	27.33	40.62	35.63	654.18	< D.L.
Sena 24	Bernesga Mb.	197.91	139.90	21.47	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	10.47	392.21	< D.L.
Sena 25	Bernesga Mb.	202.01	147.68	24.11	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	378.33	24.30

SAMPLE	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
Sena 1	Barrios Fm	< D.L.	< D.L.	< D.L.	< D.L.	6.86	< D.L.
Sena 2	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Sena 3	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	5.00	< D.L.
Sena 4	Getino Bed	< D.L.	4.32	< D.L.	< D.L.	2.92	< D.L.
Sena 5	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	3.05	< D.L.
Sena 6	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	12.98	5.72
Sena 7	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	8.87	< D.L.
Sena 8	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	7.85	4.96
Sena 9	Getino Bed	< D.L.	6.06	< D.L.	< D.L.	6.36	< D.L.
Sena 10	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	7.69	< D.L.
Sena 11	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	12.16	7.83
Sena 12	Bernesga Mb.	< D.L.	5.99	< D.L.	< D.L.	14.86	9.16
Sena 13	Bernesga Mb.	< D.L.	5.79	< D.L.	< D.L.	16.49	9.01
Sena 14	Bernesga Mb.	< D.L.	6.65	< D.L.	< D.L.	12.49	8.63
Sena 15	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	16.54	11.58
Sena 16	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Sena 17	Bernesga Mb.	< D.L.	4.79	< D.L.	< D.L.	16.06	8.01
Sena 18	Bernesga Mb.	< D.L.	7.27	< D.L.	< D.L.	13.02	11.25
Sena 19	Bernesga Mb.	< D.L.	6.50	< D.L.	< D.L.	13.92	7.44
Sena 20	Bernesga Mb.	< D.L.	< D.L.	33.66	< D.L.	16.71	9.00
Sena 21	Bernesga Mb.	< D.L.	5.90	44.87	< D.L.	21.56	7.76
Sena 22	Bernesga Mb.	< D.L.	< D.L.	61.09	< D.L.	19.32	9.65
Sena 23	Bernesga Mb.	< D.L.	< D.L.	57.60	< D.L.	10.37	9.43
Sena 24	Bernesga Mb.	< D.L.	8.06	54.48	< D.L.	20.08	9.07
Sena 25	Bernesga Mb.	< D.L.	6.15	35.40	< D.L.	19.97	9.13

SAMPLE	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
Sena 26	Bernesga Mb.	< D.L.	< D.L.	505.35	17.68	280.19	134.83	66.40	78.85	36.88	< D.L.	11.87	< D.L.	170.40
Sena 27	Bernesga Mb.	< D.L.	423.41	541.99	< D.L.	266.43	130.08	< D.L.	63.32	35.86	< D.L.	29.11	< D.L.	160.83
Sena 28	Bernesga Mb.	< D.L.	278.30	496.05	18.51	289.60	134.93	< D.L.	66.92	17.34	< D.L.	13.05	2.83	174.32
Sena 29	Bernesga Mb.	< D.L.	309.86	457.94	< D.L.	232.14	135.92	< D.L.	55.14	21.43	< D.L.	11.67	< D.L.	179.30
Sena 30	Bernesga Mb.	< D.L.	< D.L.	466.18	< D.L.	213.05	136.97	< D.L.	51.95	22.29	< D.L.	15.71	< D.L.	179.85
Sena 31	Bernesga Mb.	< D.L.	303.27	504.14	17.02	335.70	152.50	< D.L.	73.72	41.94	< D.L.	15.74	< D.L.	168.32
Sena 32	Bernesga Mb.	< D.L.	< D.L.	494.24	< D.L.	293.64	130.22	< D.L.	57.79	23.03	< D.L.	11.23	< D.L.	172.12
Sena 33	Bernesga Mb.	< D.L.	< D.L.	506.68	< D.L.	427.84	147.10	< D.L.	66.74	29.89	< D.L.	10.50	< D.L.	167.68
Sena 34	Bernesga Mb.	< D.L.	< D.L.	574.44	< D.L.	238.23	120.23	< D.L.	83.62	22.16	< D.L.	18.94	< D.L.	162.20
Sena 35	Bernesga Mb.	< D.L.	< D.L.	500.87	< D.L.	199.64	128.97	< D.L.	46.67	18.12	< D.L.	9.63	< D.L.	174.65
Sena 36	Bernesga Mb.	< D.L.	< D.L.	538.56	< D.L.	274.39	133.69	< D.L.	51.53	21.05	< D.L.	10.65	< D.L.	176.27
Sena 37	Bernesga Mb.	< D.L.	< D.L.	529.77	20.07	313.81	139.35	< D.L.	55.19	20.62	< D.L.	24.15	< D.L.	175.17
Sena 38	Bernesga Mb.	< D.L.	< D.L.	508.77	16.60	272.11	142.14	< D.L.	66.15	13.73	< D.L.	11.69	< D.L.	168.46
Sena 39	Bernesga Mb.	< D.L.	< D.L.	601.81	< D.L.	245.30	113.34	148.37	110.29	46.59	< D.L.	24.34	< D.L.	155.66
Sena 40	Bernesga Mb.	< D.L.	< D.L.	521.38	18.22	262.31	130.01	< D.L.	52.43	30.06	< D.L.	12.12	< D.L.	171.59
Sena 41	Bernesga Mb.	< D.L.	< D.L.	474.42	20.11	246.68	134.08	< D.L.	46.72	30.32	< D.L.	10.16	2.11	176.50
Sena 42	Bernesga Mb.	< D.L.	< D.L.	508.37	< D.L.	216.94	132.55	< D.L.	46.35	21.80	< D.L.	7.58	< D.L.	179.37
Sena 43	Bernesga Mb.	< D.L.	< D.L.	530.62	< D.L.	205.80	128.02	< D.L.	47.85	29.38	< D.L.	13.32	< D.L.	180.47
Sena 44	Bernesga Mb.	< D.L.	< D.L.	520.77	< D.L.	211.97	128.20	< D.L.	48.52	48.19	< D.L.	16.98	2.46	169.82
Sena 45	Bernesga Mb.	< D.L.	< D.L.	499.81	20.80	217.86	136.45	< D.L.	51.88	14.38	< D.L.	5.83	< D.L.	178.89
Sena 46	Bernesga Mb.	< D.L.	< D.L.	706.96	< D.L.	211.14	101.37	< D.L.	116.92	47.43	44.13	36.91	< D.L.	142.38
Sena 47	Bernesga Mb.	< D.L.	< D.L.	657.70	< D.L.	176.13	96.94	< D.L.	111.96	55.13	36.73	32.47	2.76	140.75
Sena 48	Bernesga Mb.	< D.L.	< D.L.	551.24	< D.L.	241.11	139.95	< D.L.	51.27	35.82	< D.L.	16.52	2.99	166.17
Sena 49	Bernesga Mb.	< D.L.	< D.L.	587.96	23.62	227.12	118.13	< D.L.	56.60	31.39	< D.L.	21.50	< D.L.	160.20
Sena 50	Bernesga Mb.	< D.L.	< D.L.	497.95	14.94	197.62	137.93	< D.L.	45.55	11.34	< D.L.	6.65	< D.L.	174.45

SAMPLE	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
Sena 26	Bernesga Mb.	204.24	144.06	22.33	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	352.65	< D.L.
Sena 27	Bernesga Mb.	208.56	163.32	22.05	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	10.96	346.67	< D.L.
Sena 28	Bernesga Mb.	209.32	154.57	22.92	4.05	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	317.65	< D.L.
Sena 29	Bernesga Mb.	215.96	149.43	23.09	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	335.10	< D.L.
Sena 30	Bernesga Mb.	213.03	146.77	22.17	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	10.26	397.58	< D.L.
Sena 31	Bernesga Mb.	211.67	148.88	22.71	5.04	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	353.96	< D.L.
Sena 32	Bernesga Mb.	209.19	153.34	24.29	3.55	< D.L.	< D.L.	< D.L.	25.07	< D.L.	< D.L.	< D.L.	337.02	23.97
Sena 33	Bernesga Mb.	205.87	168.11	25.40	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	303.55	< D.L.
Sena 34	Bernesga Mb.	195.08	140.73	19.77	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	11.89	417.94	26.32
Sena 35	Bernesga Mb.	193.95	139.84	21.61	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	322.97	< D.L.
Sena 36	Bernesga Mb.	196.34	144.33	22.03	4.95	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	330.92	< D.L.
Sena 37	Bernesga Mb.	194.59	128.27	21.71	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	333.45	31.40
Sena 38	Bernesga Mb.	194.86	143.80	21.25	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	260.35	< D.L.
Sena 39	Bernesga Mb.	192.44	132.09	19.33	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	38.51	57.36	41.52	615.45	< D.L.
Sena 40	Bernesga Mb.	195.17	148.43	23.08	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	326.05	< D.L.
Sena 41	Bernesga Mb.	198.44	147.59	22.43	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	304.93	< D.L.
Sena 42	Bernesga Mb.	195.74	133.42	20.93	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	9.55	359.10	23.00
Sena 43	Bernesga Mb.	195.84	131.07	20.98	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	11.15	388.64	25.52
Sena 44	Bernesga Mb.	195.07	156.90	21.51	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	267.33	< D.L.
Sena 45	Bernesga Mb.	192.65	141.51	20.98	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	234.45	23.21
Sena 46	Bernesga Mb.	188.49	117.01	18.78	< D.L.	< D.L.	43.00	< D.L.	< D.L.	38.63	67.55	49.75	653.78	32.21
Sena 47	Bernesga Mb.	186.87	123.02	19.54	< D.L.	< D.L.	38.73	< D.L.	< D.L.	31.50	52.70	45.37	619.56	35.42
Sena 48	Bernesga Mb.	188.76	138.74	20.85	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	14.10	321.56	< D.L.
Sena 49	Bernesga Mb.	188.14	131.00	21.22	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	19.20	401.86	25.71
Sena 50	Bernesga Mb.	190.10	134.74	21.54	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	228.01	< D.L.

SAMPLE	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
Sena 26	Bernesga Mb.	< D.L.	4.81	53.93	< D.L.	20.82	9.06
Sena 27	Bernesga Mb.	< D.L.	< D.L.	39.42	< D.L.	17.22	8.35
Sena 28	Bernesga Mb.	< D.L.	5.86	73.14	< D.L.	21.75	7.55
Sena 29	Bernesga Mb.	< D.L.	4.87	43.18	< D.L.	23.23	8.18
Sena 30	Bernesga Mb.	< D.L.	< D.L.	60.97	< D.L.	20.70	8.45
Sena 31	Bernesga Mb.	< D.L.	6.68	57.51	< D.L.	21.18	9.26
Sena 32	Bernesga Mb.	< D.L.	< D.L.	63.27	< D.L.	22.20	10.83
Sena 33	Bernesga Mb.	< D.L.	6.52	71.21	< D.L.	20.93	14.05
Sena 34	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	13.73	10.57
Sena 35	Bernesga Mb.	< D.L.	6.23	47.15	< D.L.	19.07	12.79
Sena 36	Bernesga Mb.	< D.L.	6.70	51.51	< D.L.	19.48	12.88
Sena 37	Bernesga Mb.	< D.L.	4.90	31.60	< D.L.	18.28	13.65
Sena 38	Bernesga Mb.	< D.L.	< D.L.	41.07	< D.L.	19.00	11.91
Sena 39	Bernesga Mb.	< D.L.	7.58	73.12	< D.L.	10.25	10.35
Sena 40	Bernesga Mb.	< D.L.	4.73	66.65	< D.L.	21.26	15.00
Sena 41	Bernesga Mb.	< D.L.	5.36	< D.L.	< D.L.	20.16	13.90
Sena 42	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	18.50	14.42
Sena 43	Bernesga Mb.	< D.L.	6.99	< D.L.	< D.L.	16.34	14.51
Sena 44	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	16.44	15.67
Sena 45	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	20.22	15.19
Sena 46	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	10.37
Sena 47	Bernesga Mb.	< D.L.	7.96	< D.L.	< D.L.	< D.L.	< D.L.
Sena 48	Bernesga Mb.	< D.L.	5.56	42.47	< D.L.	18.32	12.39
Sena 49	Bernesga Mb.	< D.L.	5.66	< D.L.	< D.L.	10.72	9.20
Sena 50	Bernesga Mb.	< D.L.	5.44	29.29	< D.L.	19.59	11.10

SAMPLE	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
Sena 51	Bernesga Mb.	< D.L.	< D.L.	495.98	< D.L.	209.43	139.70	56.56	47.93	10.97	< D.L.	6.53	< D.L.	172.85
Sena 52	Bernesga Mb.	< D.L.	< D.L.	526.49	< D.L.	223.04	137.98	< D.L.	49.63	18.23	< D.L.	11.53	< D.L.	167.19
Sena 53	Bernesga Mb.	< D.L.	< D.L.	495.52	< D.L.	220.24	140.45	< D.L.	51.06	13.01	< D.L.	5.83	< D.L.	169.56
Sena 54	Bernesga Mb.	< D.L.	< D.L.	496.18	< D.L.	213.80	139.07	< D.L.	39.74	14.64	< D.L.	10.26	1.97	170.13
Sena 55	Bernesga Mb.	< D.L.	< D.L.	463.77	< D.L.	237.25	137.92	< D.L.	53.11	13.94	< D.L.	5.53	< D.L.	174.17
Sena 56	Bernesga Mb.	< D.L.	< D.L.	538.28	17.78	236.36	137.12	< D.L.	47.94	24.45	< D.L.	15.52	2.03	166.60
Sena 57	Bernesga Mb.	< D.L.	< D.L.	507.89	< D.L.	212.81	133.07	< D.L.	39.98	14.97	< D.L.	7.10	< D.L.	172.60
Sena 58	Bernesga Mb.	< D.L.	455.32	724.41	< D.L.	200.80	105.19	< D.L.	89.82	55.51	63.59	43.62	3.08	135.00
Sena 59	Bernesga Mb.	< D.L.	< D.L.	503.42	22.22	204.88	140.58	< D.L.	61.04	30.79	< D.L.	12.87	< D.L.	174.52
Sena 60	Bernesga Mb.	< D.L.	< D.L.	481.48	17.69	208.16	141.72	< D.L.	54.45	10.99	< D.L.	< D.L.	< D.L.	179.28
Sena 61	Bernesga Mb.	< D.L.	< D.L.	637.79	< D.L.	202.29	114.30	< D.L.	82.30	60.72	45.07	31.42	2.32	153.68
Sena 62	Bernesga Mb.	< D.L.	< D.L.	584.53	< D.L.	210.73	115.05	< D.L.	79.55	39.01	34.96	21.32	< D.L.	155.69
Sena 63	Bernesga Mb.	< D.L.	< D.L.	619.21	< D.L.	210.83	98.99	< D.L.	97.88	34.05	36.96	28.97	< D.L.	151.26
Sena 64	Bernesga Mb.	< D.L.	< D.L.	483.50	< D.L.	204.44	139.48	< D.L.	51.70	10.82	< D.L.	< D.L.	< D.L.	177.00
Sena 65	Bernesga Mb.	< D.L.	< D.L.	541.62	21.05	195.94	127.54	< D.L.	77.18	32.07	< D.L.	18.59	< D.L.	169.36
Sena 66	Bernesga Mb.	< D.L.	< D.L.	495.05	< D.L.	191.03	141.80	< D.L.	54.56	15.08	< D.L.	11.45	< D.L.	173.92
Sena 67	Bernesga Mb.	< D.L.	< D.L.	619.79	< D.L.	188.71	113.91	< D.L.	84.78	49.73	< D.L.	22.95	< D.L.	155.52
Sena 68	Bernesga Mb.	< D.L.	< D.L.	394.33	< D.L.	211.10	142.31	< D.L.	79.16	36.44	< D.L.	13.57	< D.L.	165.10
Sena 69	Bernesga Mb.	< D.L.	< D.L.	543.54	< D.L.	221.88	144.46	< D.L.	63.52	14.55	< D.L.	14.45	< D.L.	161.66
Sena 70	Bernesga Mb.	< D.L.	< D.L.	587.14	21.84	204.11	118.22	< D.L.	77.22	59.41	< D.L.	28.38	< D.L.	152.90
Sena 71	Bernesga Mb.	< D.L.	< D.L.	508.13	< D.L.	222.75	122.04	< D.L.	62.10	20.48	< D.L.	15.81	< D.L.	161.83
Sena 72	Bernesga Mb.	< D.L.	< D.L.	543.48	25.49	214.59	132.84	< D.L.	63.30	32.02	< D.L.	17.46	< D.L.	167.40
Sena 73	Bernesga Mb.	< D.L.	< D.L.	487.55	18.79	219.81	124.91	< D.L.	63.97	33.42	< D.L.	13.02	< D.L.	164.86
Sena 74	Bernesga Mb.	< D.L.	< D.L.	546.18	< D.L.	214.32	120.93	< D.L.	67.78	38.99	< D.L.	20.30	< D.L.	161.96
Sena 75	Bernesga Mb.	< D.L.	362.10	633.61	< D.L.	202.40	108.61	200.90	69.90	32.84	< D.L.	31.37	2.44	154.75

SAMPLE	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
Sena 51	Bernesga Mb.	190.48	128.57	21.08	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	195.11	< D.L.
Sena 52	Bernesga Mb.	191.16	125.88	20.58	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	249.90	< D.L.
Sena 53	Bernesga Mb.	189.36	129.16	21.32	< D.L.	< D.L.	< D.L.	< D.L.	20.54	< D.L.	< D.L.	< D.L.	160.78	< D.L.
Sena 54	Bernesga Mb.	189.53	130.65	20.95	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	166.32	< D.L.
Sena 55	Bernesga Mb.	187.38	135.58	20.94	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	191.91	< D.L.
Sena 56	Bernesga Mb.	186.76	133.82	21.16	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	285.95	< D.L.
Sena 57	Bernesga Mb.	187.79	129.35	19.93	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	157.74	< D.L.
Sena 58	Bernesga Mb.	183.46	102.59	17.63	< D.L.	< D.L.	64.65	< D.L.	< D.L.	38.16	70.93	58.31	690.99	32.51
Sena 59	Bernesga Mb.	189.59	124.83	20.37	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	288.29	< D.L.
Sena 60	Bernesga Mb.	191.42	122.74	19.77	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	201.95	< D.L.
Sena 61	Bernesga Mb.	184.25	107.92	15.91	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	20.82	34.18	31.99	472.83	< D.L.
Sena 62	Bernesga Mb.	183.57	126.46	19.44	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	21.24	< D.L.	31.11	471.59	24.77
Sena 63	Bernesga Mb.	184.38	109.15	19.30	< D.L.	< D.L.	49.58	< D.L.	< D.L.	28.85	48.69	36.10	561.72	29.95
Sena 64	Bernesga Mb.	189.25	134.54	21.49	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	201.70	< D.L.
Sena 65	Bernesga Mb.	187.28	129.00	20.04	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	11.49	329.16	< D.L.
Sena 66	Bernesga Mb.	188.70	126.71	19.88	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	267.23	28.16
Sena 67	Bernesga Mb.	184.89	115.10	19.05	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	24.77	37.93	29.09	505.17	26.59
Sena 68	Bernesga Mb.	221.03	127.16	21.82	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	34.87	19.07	744.22	< D.L.
Sena 69	Bernesga Mb.	186.82	125.91	22.00	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	16.63	432.80	24.60
Sena 70	Bernesga Mb.	181.07	146.73	19.82	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	23.02	457.25	24.30
Sena 71	Bernesga Mb.	181.15	163.11	21.46	9.95	< D.L.	< D.L.	< D.L.	< D.L.	20.74	< D.L.	15.41	394.61	< D.L.
Sena 72	Bernesga Mb.	181.37	148.38	21.78	4.76	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	13.50	353.97	< D.L.
Sena 73	Bernesga Mb.	180.51	159.40	21.67	3.72	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	304.51	< D.L.
Sena 74	Bernesga Mb.	181.71	156.47	21.64	< D.L.	< D.L.	< D.L.	< D.L.	24.10	< D.L.	< D.L.	12.73	330.06	< D.L.
Sena 75	Bernesga Mb.	179.47	122.41	18.86	< D.L.	< D.L.	37.65	< D.L.	< D.L.	24.43	42.92	40.84	555.95	< D.L.

SAMPLE	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
Sena 51	Bernesga Mb.	< D.L.	< D.L.	30.89	< D.L.	21.75	11.58
Sena 52	Bernesga Mb.	< D.L.	6.34	43.78	< D.L.	18.98	10.97
Sena 53	Bernesga Mb.	< D.L.	4.58	< D.L.	< D.L.	19.06	12.68
Sena 54	Bernesga Mb.	< D.L.	5.52	31.25	< D.L.	18.96	10.84
Sena 55	Bernesga Mb.	< D.L.	6.64	< D.L.	< D.L.	20.33	12.35
Sena 56	Bernesga Mb.	< D.L.	6.15	< D.L.	< D.L.	17.27	12.17
Sena 57	Bernesga Mb.	< D.L.	6.10	40.19	< D.L.	17.48	12.62
Sena 58	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	11.27
Sena 59	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	18.16	13.50
Sena 60	Bernesga Mb.	< D.L.	5.66	32.56	< D.L.	19.74	13.34
Sena 61	Bernesga Mb.	< D.L.	6.85	< D.L.	< D.L.	7.99	8.96
Sena 62	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	9.18	9.91
Sena 63	Bernesga Mb.	< D.L.	7.29	< D.L.	< D.L.	6.70	10.46
Sena 64	Bernesga Mb.	< D.L.	5.93	30.14	< D.L.	21.45	13.93
Sena 65	Bernesga Mb.	< D.L.	7.82	< D.L.	< D.L.	13.11	12.10
Sena 66	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	17.41	12.68
Sena 67	Bernesga Mb.	< D.L.	5.64	< D.L.	< D.L.	7.45	10.24
Sena 68	Bernesga Mb.	< D.L.	< D.L.	108.77	< D.L.	18.51	10.42
Sena 69	Bernesga Mb.	< D.L.	5.25	95.14	< D.L.	16.73	11.49
Sena 70	Bernesga Mb.	< D.L.	6.42	< D.L.	< D.L.	10.87	10.45
Sena 71	Bernesga Mb.	< D.L.	6.94	31.30	< D.L.	15.73	14.53
Sena 72	Bernesga Mb.	< D.L.	< D.L.	38.68	< D.L.	16.29	12.85
Sena 73	Bernesga Mb.	< D.L.	5.68	41.33	< D.L.	18.31	11.45
Sena 74	Bernesga Mb.	< D.L.	6.61	< D.L.	< D.L.	16.13	12.55
Sena 75	Bernesga Mb.	< D.L.	6.10	< D.L.	< D.L.	4.89	< D.L.

SAMPLE	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
Sena 76	Bernesga Mb.	< D.L.	411.53	750.68	< D.L.	179.60	96.75	< D.L.	149.64	46.95	48.50	44.66	< D.L.	130.67
Sena 77	Bernesga Mb.	< D.L.	385.97	625.34	< D.L.	215.24	115.16	< D.L.	68.44	28.92	< D.L.	30.07	2.43	166.42
Sena 78	Bernesga Mb.	< D.L.	< D.L.	551.73	< D.L.	202.18	113.91	< D.L.	73.36	28.05	< D.L.	21.63	< D.L.	170.83
Sena 79	Bernesga Mb.	< D.L.	< D.L.	565.35	20.20	214.18	113.88	< D.L.	79.77	30.12	< D.L.	21.82	2.59	169.82

SAMPLE	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
Sena 76	Bernesga Mb.	174.91	109.38	16.96	< D.L.	< D.L.	87.10	< D.L.	< D.L.	39.64	71.83	61.46	732.60	42.15
Sena 77	Bernesga Mb.	179.07	132.83	20.44	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	44.36	31.30	518.93	29.33
Sena 78	Bernesga Mb.	178.23	136.63	21.47	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	26.51	35.26	19.73	437.86	32.02
Sena 79	Bernesga Mb.	179.16	121.86	19.99	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	27.07	469.45	< D.L.

SAMPLE	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
Sena 76	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	10.91
Sena 77	Bernesga Mb.	< D.L.	6.70	< D.L.	< D.L.	8.03	11.26
Sena 78	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	10.16	9.60
Sena 79	Bernesga Mb.	< D.L.	6.78	< D.L.	< D.L.	11.24	10.43

6. Geochemical Results – Villanueva section

6.1 Major elements

Sample	Formation	NaO Wt % (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO (Wt%)	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
Villa 1	Bernesga Mb.	1.51	1.42	30.05	50.92	4.44	< D.L.	1.17	0.06	5.15
Villa 2	Bernesga Mb.	1.48	1.36	29.23	49.57	4.33	< D.L.	1.18	0.06	5.81
Villa 3	Bernesga Mb.	1.46	1.33	29.64	50.55	4.26	< D.L.	1.18	0.06	5.86
Villa 4	Bernesga Mb.	1.53	1.37	28.49	49.82	4.49	< D.L.	1.17	0.06	5.19
Villa 5	Bernesga Mb.	1.65	1.46	31.78	52.51	4.96	< D.L.	1.20	0.06	5.27
Villa 6	Bernesga Mb.	1.59	1.21	29.61	48.14	4.73	< D.L.	1.25	0.06	5.27
Villa 7	Bernesga Mb.	1.54	1.24	31.03	52.45	4.53	< D.L.	1.17	0.06	5.73
Villa 8	Bernesga Mb.	1.48	1.37	30.63	50.29	4.35	< D.L.	1.19	0.06	5.44
Villa 9	Bernesga Mb.	1.57	1.22	29.41	50.07	4.65	< D.L.	1.19	0.06	5.31
Villa 10	Bernesga Mb.	1.63	1.25	28.74	51.12	4.87	< D.L.	1.16	0.06	5.22
Villa 11	Bernesga Mb.	1.52	1.41	31.66	52.00	4.47	< D.L.	1.18	0.06	5.57
Villa 12	Bernesga Mb.	1.54	1.27	29.47	49.88	4.56	< D.L.	1.13	0.06	5.58
Villa 13	Bernesga Mb.	1.55	1.53	30.66	50.93	4.58	< D.L.	1.15	0.06	5.17
Villa 14	Bernesga Mb.	1.54	1.40	32.14	51.87	4.53	< D.L.	1.17	0.06	5.64
Villa 15	Bernesga Mb.	1.53	1.40	29.67	50.84	4.52	< D.L.	1.14	0.06	5.39
Villa 16	Bernesga Mb.	1.51	1.47	29.85	49.83	4.42	< D.L.	1.16	0.06	5.10
Villa 17	Bernesga Mb.	1.40	1.24	29.01	49.29	4.04	< D.L.	1.18	0.06	5.57
Villa 18	Bernesga Mb.	1.41	1.43	32.75	49.90	4.06	< D.L.	1.18	0.06	6.89
Villa 19	Bernesga Mb.	1.38	1.35	29.18	50.03	3.96	< D.L.	1.17	0.06	5.47
Villa 20	Bernesga Mb.	1.58	1.49	31.49	51.17	4.68	< D.L.	1.16	0.06	5.61
Villa 21	Bernesga Mb.	1.39	1.36	32.25	50.29	3.99	< D.L.	1.20	0.06	5.70
Villa 22	Bernesga Mb.	1.43	1.70	33.37	50.85	4.13	< D.L.	1.16	0.06	5.57
Villa 23	Bernesga Mb.	1.37	1.50	30.72	50.91	3.95	< D.L.	1.18	0.06	5.88
Villa 24	Bernesga Mb.	1.30	1.31	30.07	48.63	3.67	< D.L.	1.16	0.06	6.10
Villa 25	Bernesga Mb.	1.32	1.46	30.43	49.49	3.76	< D.L.	1.17	0.06	6.44

Sample	Formation	NaO Wt % (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO (Wt%)	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
Villa 26	Bernesga Mb.	1.34	1.43	29.15	48.75	3.84	< D.L.	1.16	0.06	5.63
Villa 27	Bernesga Mb.	1.39	1.37	29.30	48.88	4.00	< D.L.	1.21	0.06	5.53
Villa 28	Bernesga Mb.	1.37	1.36	30.04	49.03	3.95	< D.L.	1.18	0.06	5.41
Villa 29	Bernesga Mb.	1.40	1.43	33.36	50.03	4.05	< D.L.	1.21	0.06	5.12
Villa 30	Bernesga Mb.	1.44	1.50	32.14	50.61	4.19	< D.L.	1.17	0.06	5.57
Villa 31	Bernesga Mb.	1.49	1.20	31.91	50.72	4.35	< D.L.	1.18	0.06	5.73
Villa 32	Bernesga Mb.	1.34	1.46	29.75	48.79	3.82	< D.L.	1.19	0.06	5.33
Villa 33	Bernesga Mb.	1.41	1.29	30.20	50.35	4.09	< D.L.	1.20	0.06	5.52
Villa 34	Bernesga Mb.	1.38	1.25	28.73	48.26	3.97	< D.L.	1.21	0.06	5.27
Villa 35	Bernesga Mb.	1.51	1.27	30.47	51.07	4.44	< D.L.	1.20	0.06	5.41
Villa 36	Bernesga Mb.	1.43	1.45	29.79	48.99	4.14	< D.L.	1.18	0.06	5.22
Villa 37	Bernesga Mb.	1.48	1.33	29.35	49.41	4.33	< D.L.	1.18	0.06	5.15
Villa 38	Bernesga Mb.	1.53	1.35	31.58	50.19	4.50	< D.L.	1.24	0.06	5.12
Villa 39	Bernesga Mb.	1.42	1.08	28.87	49.35	4.10	< D.L.	1.23	0.06	5.32
Villa 40	Bernesga Mb.	1.37	1.31	31.95	49.41	3.93	< D.L.	1.19	0.06	7.92
Villa 41	Bernesga Mb.	1.36	1.48	30.16	50.68	3.89	< D.L.	1.21	0.06	5.57
Villa 42	Bernesga Mb.	1.36	1.31	28.59	49.41	3.89	< D.L.	1.24	0.06	4.98
Villa 43	Bernesga Mb.	1.43	1.20	29.83	50.78	4.15	< D.L.	1.22	0.06	5.43
Villa 44	Bernesga Mb.	1.44	1.17	28.37	46.36	4.20	< D.L.	1.09	0.05	10.28
Villa 45	Bernesga Mb.	1.39	1.33	31.48	51.27	4.01	< D.L.	1.20	0.06	4.98
Villa 46	Bernesga Mb.	1.34	1.29	30.76	53.21	3.82	< D.L.	1.13	0.06	5.68
Villa 47	Bernesga Mb.	1.51	1.22	30.10	49.49	4.42	< D.L.	1.22	0.06	5.37
Villa 48	Bernesga Mb.	1.38	1.28	30.17	51.54	3.98	< D.L.	1.25	0.06	5.34
Villa 49	Bernesga Mb.	1.41	1.33	30.83	52.79	4.09	< D.L.	1.21	0.06	6.26
Villa 50	Bernesga Mb.	1.42	1.47	31.11	52.60	4.12	< D.L.	1.21	0.06	6.02

Sample	Formation	NaO Wt % (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO (Wt%)	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
Villa 51	Bernesga Mb.	1.38	1.48	29.58	52.30	3.97	< D.L.	1.22	0.06	5.27
Villa 52	Bernesga Mb.	1.47	1.19	28.40	51.66	4.27	< D.L.	1.20	0.06	4.96
Villa 53	Bernesga Mb.	1.30	1.15	28.46	52.98	3.68	< D.L.	1.09	0.06	7.52
Villa 54	Bernesga Mb.	1.41	1.72	30.77	52.87	4.09	< D.L.	1.18	0.06	4.96
Villa 55	Bernesga Mb.	1.46	1.59	27.47	49.97	4.25	< D.L.	1.18	0.06	4.96
Villa 56	Bernesga Mb.	1.40	1.54	30.25	53.54	4.05	< D.L.	1.22	0.06	5.18
Villa 57	Bernesga Mb.	1.37	1.56	31.75	51.73	3.91	< D.L.	1.16	0.06	7.58
Villa 58	Bernesga Mb.	1.32	1.31	27.84	49.65	3.75	< D.L.	1.22	0.06	6.18
Villa 59	Bernesga Mb.	1.32	1.38	29.08	51.37	3.76	< D.L.	1.22	0.06	6.06
Villa 60	Bernesga Mb.	1.30	1.48	31.20	51.48	3.68	< D.L.	1.22	0.06	6.20
Villa 61	Bernesga Mb.	1.29	1.18	31.04	49.14	3.65	< D.L.	1.20	0.06	7.16
Villa 62	Bernesga Mb.	1.37	1.21	32.06	50.18	3.92	< D.L.	1.15	0.06	9.00
Villa 63	Bernesga Mb.	1.39	1.25	29.38	49.08	3.99	< D.L.	1.24	0.06	5.48
Villa 64	Bernesga Mb.	1.46	1.37	31.17	51.46	4.25	< D.L.	1.21	0.06	5.82
Villa 65	Bernesga Mb.	1.40	1.37	29.79	50.22	4.05	< D.L.	1.23	0.06	5.49
Villa 66	Bernesga Mb.	1.59	1.45	29.69	51.68	4.72	< D.L.	1.14	0.06	5.72
Villa 67	Bernesga Mb.	1.51	1.42	31.06	51.58	4.45	< D.L.	1.20	0.06	5.95
Villa 68	Bernesga Mb.	1.52	1.68	30.73	51.81	4.49	< D.L.	1.15	0.06	5.86
Villa 69	Bernesga Mb.	1.54	1.30	28.02	49.84	4.53	< D.L.	1.18	0.06	5.53
Villa 70	Bernesga Mb.	1.49	1.47	28.33	50.16	4.35	< D.L.	1.19	0.06	5.37
Villa 71	Bernesga Mb.	1.37	1.53	28.60	51.70	3.92	< D.L.	1.15	0.06	6.17
Villa 72	Bernesga Mb.	1.23	1.20	29.52	46.47	3.44	0.21	1.07	0.08	13.28
Villa 73	Bernesga Mb.	1.38	1.48	31.43	53.76	3.97	< D.L.	1.24	0.06	5.75
Villa 74	Bernesga Mb.	1.30	1.30	29.75	50.49	3.68	< D.L.	1.20	0.06	7.28
Villa 75	Bernesga Mb.	1.32	1.30	30.53	49.55	3.75	< D.L.	1.18	0.06	7.84

Sample	Formation	NaO Wt % (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO (Wt%)	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
Villa 76	Bernesga Mb.	1.22	1.14	28.51	45.39	3.40	< D.L.	1.16	0.07	9.74
Villa 77	Bernesga Mb.	1.30	1.23	28.29	49.56	3.66	< D.L.	1.21	0.06	5.86
Villa 78	Bernesga Mb.	1.31	1.37	32.29	52.31	3.73	< D.L.	1.24	0.06	5.66
Villa 79	Bernesga Mb.	1.32	1.20	29.83	49.26	3.75	< D.L.	1.23	0.06	6.17
Villa 80	Bernesga Mb.	1.32	1.35	32.99	52.13	3.74	< D.L.	1.24	0.06	6.01
Villa 81	Bernesga Mb.	1.25	1.22	31.10	50.06	3.51	< D.L.	1.21	0.06	5.81
Villa 82	Bernesga Mb.	1.34	1.12	29.84	48.95	3.82	< D.L.	1.19	0.05	6.85
Villa 83	Bernesga Mb.	1.36	1.46	31.19	51.31	3.90	< D.L.	1.18	0.06	5.36
Villa 84	Bernesga Mb.	1.31	1.32	27.91	50.03	3.72	< D.L.	1.23	0.06	5.21
Villa 85	Bernesga Mb.	1.24	1.01	31.41	50.35	3.47	< D.L.	1.22	0.06	8.56
Villa 86	Bernesga Mb.	1.26	1.21	28.88	48.70	3.55	< D.L.	1.21	0.06	6.67
Villa 87	Bernesga Mb.	1.21	< D.L.	29.64	48.56	3.37	< D.L.	1.18	0.06	10.52
Villa 88	Bernesga Mb.	1.33	1.06	30.83	50.12	3.80	< D.L.	1.18	0.06	6.67
Villa 89	Bernesga Mb.	1.31	1.13	29.67	52.33	3.73	< D.L.	1.17	0.06	5.22
Villa 90	Bernesga Mb.	1.29	1.42	29.95	49.28	3.63	< D.L.	1.19	0.06	5.01
Villa 91	Bernesga Mb.	1.33	1.44	30.35	49.54	3.77	< D.L.	1.20	0.06	5.41
Villa 92	Bernesga Mb.	1.29	1.54	31.68	51.09	3.64	< D.L.	1.20	0.06	5.75
Villa 93	Bernesga Mb.	1.26	1.10	30.65	51.69	3.53	< D.L.	1.23	0.06	5.06
Villa 94	Bernesga Mb.	1.23	1.18	31.09	51.95	3.42	< D.L.	1.20	0.06	5.72
Villa 95	Bernesga Mb.	1.34	1.10	29.57	50.42	3.83	< D.L.	1.13	0.06	4.85
Villa 96	Bernesga Mb.	1.26	1.07	29.40	49.43	3.52	< D.L.	1.16	0.06	5.81
Villa 97	Bernesga Mb.	1.30	1.04	28.08	49.79	3.69	< D.L.	1.21	0.06	4.01
Villa 98	Bernesga Mb.	1.29	1.12	29.72	49.74	3.65	< D.L.	1.14	0.06	6.22
Villa 99	Bernesga Mb.	1.27	1.20	30.36	47.77	3.58	< D.L.	1.17	0.06	6.59
Villa 100	Bernesga Mb.	1.19	1.10	30.54	50.87	3.29	< D.L.	1.08	0.06	8.40

Sample	Formation	NaO Wt % (approx)	MgO (Wt%)	Al2O3 (Wt%)	SiO2 (Wt%)	K2O (Wt%)	CaO (Wt%)	TiO2 (Wt%)	MnO (Wt%)	Fe2O3 (Wt%)
Villa 101	Bernesga Mb.	1.27	1.14	30.27	47.42	3.58	< D.L.	1.15	0.06	8.13
Villa 102	Bernesga Mb.	1.32	1.12	29.74	50.05	3.74	< D.L.	1.18	0.06	5.53
Villa 103	Bernesga Mb.	1.33	1.16	29.34	51.65	3.79	< D.L.	1.23	0.06	4.03
Villa 104	Bernesga Mb.	1.37	1.26	29.86	51.35	3.92	< D.L.	1.22	0.06	4.88
Villa 105	Bernesga Mb.	1.30	1.02	28.00	49.74	3.69	< D.L.	1.15	0.06	5.64
Villa 106	Bernesga Mb.	1.31	1.16	30.78	50.11	3.73	< D.L.	1.19	0.06	5.44
Villa 107	Bernesga Mb.	1.31	1.25	31.04	50.49	3.71	< D.L.	1.19	0.06	6.09
Villa 108	Bernesga Mb.	1.12	1.04	29.63	46.96	3.03	0.20	0.90	0.05	17.75
Villa 109	Bernesga Mb.	1.08	< D.L.	23.81	56.73	2.87	< D.L.	1.02	0.06	5.50
Villa 110	Bernesga Mb.	1.44	1.03	29.45	48.22	4.17	< D.L.	1.23	0.06	6.01
Villa 111	Bernesga Mb.	1.22	1.02	30.23	49.93	3.37	< D.L.	1.07	0.06	9.49

6.2 Trace elements

Sample	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
Villa 1	Bernesga Mb.	< D.L.	< D.L.	536.88	22.88	250.42	132.29	< D.L.	81.89	24.73	< D.L.	18.36	< D.L.	180.74
Villa 2	Bernesga Mb.	< D.L.	< D.L.	563.27	< D.L.	231.55	115.87	< D.L.	89.31	36.52	< D.L.	23.79	< D.L.	178.08
Villa 3	Bernesga Mb.	< D.L.	< D.L.	555.02	< D.L.	267.21	124.32	< D.L.	68.87	39.53	35.06	29.29	< D.L.	179.80
Villa 4	Bernesga Mb.	< D.L.	< D.L.	524.51	< D.L.	270.09	99.59	105.18	66.84	33.90	< D.L.	24.44	2.23	191.91
Villa 5	Bernesga Mb.	< D.L.	< D.L.	528.50	21.81	292.96	134.18	< D.L.	68.25	42.07	< D.L.	25.90	< D.L.	195.58
Villa 6	Bernesga Mb.	< D.L.	< D.L.	634.53	21.76	320.42	135.13	< D.L.	61.97	54.06	< D.L.	25.82	3.64	200.08
Villa 7	Bernesga Mb.	< D.L.	< D.L.	540.86	< D.L.	257.35	115.42	< D.L.	78.68	41.83	< D.L.	25.75	< D.L.	183.54
Villa 8	Bernesga Mb.	< D.L.	< D.L.	560.27	< D.L.	242.71	129.55	< D.L.	55.65	35.18	< D.L.	20.80	2.30	183.03
Villa 9	Bernesga Mb.	< D.L.	< D.L.	539.88	< D.L.	253.37	129.88	< D.L.	84.89	40.15	< D.L.	21.74	2.55	196.55
Villa 10	Bernesga Mb.	< D.L.	< D.L.	541.42	< D.L.	325.97	127.46	< D.L.	74.77	43.69	< D.L.	27.13	3.57	195.65
Villa 11	Bernesga Mb.	< D.L.	< D.L.	538.34	21.34	274.39	126.26	< D.L.	68.07	45.64	< D.L.	25.33	2.81	192.54
Villa 12	Bernesga Mb.	< D.L.	< D.L.	562.89	< D.L.	249.07	121.31	107.80	64.55	35.38	< D.L.	21.39	2.42	188.65
Villa 13	Bernesga Mb.	< D.L.	< D.L.	507.98	< D.L.	220.40	128.29	< D.L.	82.99	26.82	< D.L.	18.82	< D.L.	192.86
Villa 14	Bernesga Mb.	< D.L.	< D.L.	547.78	< D.L.	244.02	121.38	< D.L.	90.47	36.92	< D.L.	28.10	< D.L.	189.53
Villa 15	Bernesga Mb.	< D.L.	< D.L.	526.92	< D.L.	225.27	126.27	< D.L.	68.82	30.83	36.74	24.84	< D.L.	192.39
Villa 16	Bernesga Mb.	< D.L.	< D.L.	512.25	28.10	258.14	125.45	< D.L.	67.41	28.16	< D.L.	18.92	4.22	185.90
Villa 17	Bernesga Mb.	< D.L.	< D.L.	564.37	19.90	276.45	126.50	< D.L.	96.25	27.97	35.02	22.71	< D.L.	173.63
Villa 18	Bernesga Mb.	< D.L.	< D.L.	592.26	< D.L.	224.96	113.26	< D.L.	88.03	38.18	38.66	27.21	2.32	167.56
Villa 19	Bernesga Mb.	< D.L.	< D.L.	563.45	< D.L.	268.82	116.92	< D.L.	78.72	35.61	35.23	21.39	< D.L.	171.50
Villa 20	Bernesga Mb.	< D.L.	< D.L.	546.59	< D.L.	258.22	120.00	< D.L.	87.44	35.21	38.94	21.34	< D.L.	185.51
Villa 21	Bernesga Mb.	< D.L.	< D.L.	587.82	23.89	249.33	122.08	< D.L.	81.80	29.14	39.99	26.84	< D.L.	170.56
Villa 22	Bernesga Mb.	< D.L.	< D.L.	545.43	< D.L.	261.58	127.53	< D.L.	80.26	26.99	45.97	19.30	< D.L.	185.89
Villa 23	Bernesga Mb.	< D.L.	< D.L.	570.35	< D.L.	243.24	126.18	< D.L.	80.20	28.44	40.86	28.40	< D.L.	167.46
Villa 24	Bernesga Mb.	< D.L.	< D.L.	595.65	< D.L.	207.61	118.44	< D.L.	89.62	39.93	48.77	23.56	< D.L.	160.24
Villa 25	Bernesga Mb.	< D.L.	< D.L.	593.31	< D.L.	225.42	111.45	< D.L.	84.27	30.16	50.93	24.50	3.05	162.92

Sample	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
Villa 1	Bernesga Mb.	181.26	128.21	19.73	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	27.60	< D.L.	17.76	377.16	< D.L.
Villa 2	Bernesga Mb.	179.58	123.37	19.41	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	22.70	37.95	26.12	418.73	23.82
Villa 3	Bernesga Mb.	180.66	128.49	20.06	3.98	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	35.69	21.49	399.71	36.09
Villa 4	Bernesga Mb.	181.80	133.05	20.48	4.31	< D.L.	< D.L.	< D.L.	< D.L.	22.89	30.64	23.10	430.71	< D.L.
Villa 5	Bernesga Mb.	181.35	137.12	20.68	5.16	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	21.76	428.45	< D.L.
Villa 6	Bernesga Mb.	183.71	144.31	23.23	3.77	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	12.50	352.27	< D.L.
Villa 7	Bernesga Mb.	180.45	127.28	20.18	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	20.09	42.59	28.22	452.00	< D.L.
Villa 8	Bernesga Mb.	180.46	129.16	19.87	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	15.39	313.94	< D.L.
Villa 9	Bernesga Mb.	182.16	128.76	20.78	4.15	< D.L.	< D.L.	< D.L.	22.97	< D.L.	31.41	26.05	428.06	< D.L.
Villa 10	Bernesga Mb.	181.33	135.86	21.34	5.36	< D.L.	< D.L.	< D.L.	< D.L.	19.14	< D.L.	21.38	446.64	< D.L.
Villa 11	Bernesga Mb.	180.08	131.48	19.41	4.14	< D.L.	< D.L.	< D.L.	< D.L.	26.62	31.73	25.22	431.12	31.34
Villa 12	Bernesga Mb.	179.72	120.02	18.47	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	22.08	< D.L.	17.89	401.16	< D.L.
Villa 13	Bernesga Mb.	179.92	122.99	19.06	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	18.05	< D.L.	16.58	379.53	< D.L.
Villa 14	Bernesga Mb.	180.28	120.35	20.06	4.28	< D.L.	< D.L.	< D.L.	< D.L.	20.16	< D.L.	23.73	411.68	25.83
Villa 15	Bernesga Mb.	180.41	118.13	19.83	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	11.59	324.18	< D.L.
Villa 16	Bernesga Mb.	180.45	120.14	20.18	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	269.70	27.57
Villa 17	Bernesga Mb.	180.37	124.58	20.20	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	18.46	346.17	25.74
Villa 18	Bernesga Mb.	177.50	112.81	18.86	< D.L.	< D.L.	34.52	< D.L.	< D.L.	31.76	44.54	32.71	479.68	26.02
Villa 19	Bernesga Mb.	178.40	120.39	19.37	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	16.59	359.20	< D.L.
Villa 20	Bernesga Mb.	177.35	117.80	19.49	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	22.16	369.67	< D.L.
Villa 21	Bernesga Mb.	179.55	107.23	18.86	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	15.48	286.62	27.63
Villa 22	Bernesga Mb.	178.03	107.84	17.99	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	19.54	44.89	19.21	377.82	< D.L.
Villa 23	Bernesga Mb.	178.81	123.01	20.73	4.43	< D.L.	< D.L.	< D.L.	< D.L.	23.52	32.14	28.07	415.75	< D.L.
Villa 24	Bernesga Mb.	178.04	104.70	17.98	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	18.33	35.63	26.79	358.85	23.68
Villa 25	Bernesga Mb.	176.65	109.35	19.24	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	32.01	23.13	375.45	29.46

Sample	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
Villa 1	Bernesga Mb.	< D.L.	< D.L.	35.45	< D.L.	14.98	11.26
Villa 2	Bernesga Mb.	< D.L.	8.85	< D.L.	< D.L.	11.85	8.36
Villa 3	Bernesga Mb.	< D.L.	6.25	< D.L.	< D.L.	12.24	10.48
Villa 4	Bernesga Mb.	< D.L.	6.01	68.97	< D.L.	15.18	10.29
Villa 5	Bernesga Mb.	< D.L.	5.74	< D.L.	< D.L.	14.85	10.98
Villa 6	Bernesga Mb.	< D.L.	5.76	38.96	< D.L.	15.36	10.91
Villa 7	Bernesga Mb.	< D.L.	< D.L.	33.27	< D.L.	12.77	11.39
Villa 8	Bernesga Mb.	< D.L.	5.78	35.51	< D.L.	14.29	10.33
Villa 9	Bernesga Mb.	< D.L.	7.24	37.43	< D.L.	14.98	11.01
Villa 10	Bernesga Mb.	< D.L.	< D.L.	54.82	< D.L.	14.19	13.73
Villa 11	Bernesga Mb.	< D.L.	< D.L.	43.07	< D.L.	14.39	9.55
Villa 12	Bernesga Mb.	< D.L.	5.99	33.35	< D.L.	14.10	7.95
Villa 13	Bernesga Mb.	< D.L.	5.35	< D.L.	< D.L.	14.53	9.53
Villa 14	Bernesga Mb.	< D.L.	5.26	< D.L.	< D.L.	12.53	8.92
Villa 15	Bernesga Mb.	< D.L.	< D.L.	53.28	< D.L.	13.10	10.88
Villa 16	Bernesga Mb.	6.75	< D.L.	34.60	< D.L.	14.05	8.17
Villa 17	Bernesga Mb.	< D.L.	6.67	36.01	< D.L.	12.68	10.43
Villa 18	Bernesga Mb.	< D.L.	6.97	< D.L.	< D.L.	8.61	13.13
Villa 19	Bernesga Mb.	< D.L.	< D.L.	36.88	< D.L.	13.20	11.90
Villa 20	Bernesga Mb.	< D.L.	5.50	< D.L.	< D.L.	11.46	15.59
Villa 21	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	12.88	12.22
Villa 22	Bernesga Mb.	< D.L.	< D.L.	31.80	< D.L.	12.29	15.80
Villa 23	Bernesga Mb.	< D.L.	6.23	< D.L.	< D.L.	11.80	12.00
Villa 24	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	9.57	10.23
Villa 25	Bernesga Mb.	< D.L.	5.81	< D.L.	< D.L.	11.06	12.67

Sample	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
Villa 26	Bernesga Mb.	< D.L.	< D.L.	576.38	< D.L.	233.98	117.67	< D.L.	97.65	31.14	46.09	20.51	< D.L.	170.30
Villa 27	Bernesga Mb.	< D.L.	< D.L.	563.55	< D.L.	273.75	130.22	< D.L.	82.04	36.91	43.25	24.41	2.49	172.46
Villa 28	Bernesga Mb.	< D.L.	< D.L.	586.91	19.05	279.40	131.53	< D.L.	71.99	34.13	35.54	20.89	< D.L.	174.17
Villa 29	Bernesga Mb.	< D.L.	< D.L.	558.17	< D.L.	278.29	134.47	< D.L.	60.18	33.63	37.33	22.33	3.91	176.99
Villa 30	Bernesga Mb.	< D.L.	< D.L.	560.25	< D.L.	263.28	132.83	< D.L.	70.35	34.96	35.01	25.29	< D.L.	178.84
Villa 31	Bernesga Mb.	< D.L.	< D.L.	587.89	< D.L.	304.08	123.10	< D.L.	69.95	35.40	< D.L.	29.36	3.20	183.78
Villa 32	Bernesga Mb.	< D.L.	< D.L.	564.52	< D.L.	257.39	119.64	< D.L.	89.18	27.92	41.32	17.16	< D.L.	169.58
Villa 33	Bernesga Mb.	< D.L.	< D.L.	573.94	< D.L.	281.13	124.27	< D.L.	62.81	31.55	35.58	26.99	< D.L.	176.59
Villa 34	Bernesga Mb.	< D.L.	< D.L.	566.46	< D.L.	288.71	140.89	< D.L.	79.34	35.51	< D.L.	20.10	< D.L.	174.26
Villa 35	Bernesga Mb.	< D.L.	< D.L.	551.16	< D.L.	203.48	123.41	< D.L.	75.93	34.53	36.65	16.65	< D.L.	182.62
Villa 36	Bernesga Mb.	< D.L.	< D.L.	551.45	21.63	206.99	121.61	< D.L.	98.99	30.54	39.58	18.39	< D.L.	179.99
Villa 37	Bernesga Mb.	< D.L.	< D.L.	538.03	21.13	248.77	127.25	< D.L.	78.12	27.42	< D.L.	18.18	2.39	184.78
Villa 38	Bernesga Mb.	< D.L.	< D.L.	542.12	< D.L.	213.26	136.81	< D.L.	57.68	34.67	< D.L.	19.53	< D.L.	188.05
Villa 39	Bernesga Mb.	< D.L.	< D.L.	582.74	< D.L.	215.86	128.13	< D.L.	76.87	32.40	< D.L.	20.45	< D.L.	170.71
Villa 40	Bernesga Mb.	< D.L.	< D.L.	635.25	30.09	199.65	99.22	< D.L.	95.37	41.56	55.97	30.32	3.08	156.52
Villa 41	Bernesga Mb.	< D.L.	< D.L.	567.84	< D.L.	186.41	113.90	< D.L.	93.99	29.83	43.67	15.93	< D.L.	163.65
Villa 42	Bernesga Mb.	< D.L.	< D.L.	549.67	< D.L.	198.57	130.82	< D.L.	86.28	21.57	39.41	11.59	2.36	168.57
Villa 43	Bernesga Mb.	< D.L.	< D.L.	586.04	< D.L.	195.56	126.56	< D.L.	57.16	23.24	< D.L.	18.50	< D.L.	174.86
Villa 44	Bernesga Mb.	< D.L.	281.80	734.18	< D.L.	237.20	120.25	< D.L.	88.66	45.65	43.61	44.40	2.85	162.63
Villa 45	Bernesga Mb.	< D.L.	< D.L.	523.86	< D.L.	218.51	125.04	< D.L.	54.81	28.75	< D.L.	17.99	< D.L.	172.92
Villa 46	Bernesga Mb.	< D.L.	< D.L.	556.13	< D.L.	213.83	118.66	< D.L.	70.37	37.56	< D.L.	21.41	2.19	162.11
Villa 47	Bernesga Mb.	< D.L.	< D.L.	524.41	< D.L.	211.07	108.47	< D.L.	56.63	34.30	34.37	23.83	< D.L.	191.19
Villa 48	Bernesga Mb.	< D.L.	< D.L.	547.80	20.80	196.07	119.50	< D.L.	62.29	28.14	44.60	14.07	< D.L.	169.15
Villa 49	Bernesga Mb.	< D.L.	< D.L.	579.25	< D.L.	187.37	109.50	< D.L.	81.68	37.57	39.69	20.49	< D.L.	164.63
Villa 50	Bernesga Mb.	< D.L.	< D.L.	566.72	< D.L.	184.53	115.98	< D.L.	78.62	33.60	49.47	17.06	< D.L.	170.38

Sample	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
Villa 26	Bernesga Mb.	176.45	112.54	20.19	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	35.61	17.99	342.78	< D.L.
Villa 27	Bernesga Mb.	178.76	121.89	19.99	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	16.61	338.43	< D.L.
Villa 28	Bernesga Mb.	178.42	122.46	20.04	3.77	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	17.64	343.63	< D.L.
Villa 29	Bernesga Mb.	178.24	119.68	18.95	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	13.83	344.95	< D.L.
Villa 30	Bernesga Mb.	178.45	112.73	19.72	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	26.18	44.29	21.09	380.49	< D.L.
Villa 31	Bernesga Mb.	177.55	119.16	19.09	5.02	< D.L.	< D.L.	< D.L.	< D.L.	24.07	33.72	23.38	384.85	< D.L.
Villa 32	Bernesga Mb.	177.85	114.10	18.57	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	21.46	361.71	24.49
Villa 33	Bernesga Mb.	177.67	115.61	20.14	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	19.69	360.26	25.37
Villa 34	Bernesga Mb.	176.47	116.91	20.37	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	14.76	320.83	23.99
Villa 35	Bernesga Mb.	177.95	124.44	19.75	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	25.28	352.58	23.35
Villa 36	Bernesga Mb.	176.62	128.67	20.02	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	14.49	316.28	< D.L.
Villa 37	Bernesga Mb.	178.18	123.83	19.60	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	18.19	< D.L.	17.84	369.19	24.66
Villa 38	Bernesga Mb.	178.40	124.72	20.83	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	17.80	< D.L.	14.86	337.53	28.06
Villa 39	Bernesga Mb.	178.52	124.70	20.05	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	12.77	325.65	< D.L.
Villa 40	Bernesga Mb.	176.55	114.92	18.78	< D.L.	< D.L.	49.47	10.90	< D.L.	29.10	47.35	38.71	507.97	< D.L.
Villa 41	Bernesga Mb.	176.62	123.31	20.58	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	18.57	< D.L.	20.18	309.52	< D.L.
Villa 42	Bernesga Mb.	176.93	128.00	19.31	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	12.03	288.22	< D.L.
Villa 43	Bernesga Mb.	177.49	122.21	20.25	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	18.95	< D.L.	22.73	327.36	< D.L.
Villa 44	Bernesga Mb.	176.00	114.80	18.46	4.88	12.55	51.21	< D.L.	< D.L.	37.19	55.73	53.12	619.77	34.85
Villa 45	Bernesga Mb.	178.89	124.75	19.57	< D.L.	< D.L.	< D.L.	< D.L.	25.03	< D.L.	< D.L.	12.90	323.49	< D.L.
Villa 46	Bernesga Mb.	177.54	121.62	18.85	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	18.58	< D.L.	18.31	339.81	< D.L.
Villa 47	Bernesga Mb.	178.15	133.85	21.94	4.68	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	17.76	389.12	22.94
Villa 48	Bernesga Mb.	178.34	145.74	21.66	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	15.57	334.33	25.37
Villa 49	Bernesga Mb.	176.70	141.30	20.04	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	23.56	< D.L.	28.15	413.09	< D.L.
Villa 50	Bernesga Mb.	176.60	135.95	19.65	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	47.43	24.14	376.06	< D.L.

Sample	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
Villa 26	Bernesga Mb.	< D.L.	6.59	37.73	< D.L.	11.57	12.10
Villa 27	Bernesga Mb.	< D.L.	7.50	38.09	< D.L.	14.14	14.69
Villa 28	Bernesga Mb.	< D.L.	6.15	45.35	< D.L.	15.04	12.61
Villa 29	Bernesga Mb.	< D.L.	6.44	< D.L.	< D.L.	14.51	13.66
Villa 30	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	10.99	14.05
Villa 31	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	12.15	14.58
Villa 32	Bernesga Mb.	< D.L.	< D.L.	31.86	< D.L.	13.54	12.55
Villa 33	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	13.78	10.38
Villa 34	Bernesga Mb.	< D.L.	7.47	< D.L.	< D.L.	11.03	12.41
Villa 35	Bernesga Mb.	< D.L.	5.48	< D.L.	< D.L.	14.16	13.81
Villa 36	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	14.77	14.19
Villa 37	Bernesga Mb.	< D.L.	< D.L.	32.43	< D.L.	13.73	14.79
Villa 38	Bernesga Mb.	< D.L.	< D.L.	33.26	< D.L.	14.87	15.28
Villa 39	Bernesga Mb.	< D.L.	5.43	< D.L.	< D.L.	14.09	12.71
Villa 40	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	5.26	11.09
Villa 41	Bernesga Mb.	< D.L.	8.56	< D.L.	< D.L.	12.37	12.59
Villa 42	Bernesga Mb.	< D.L.	6.23	< D.L.	< D.L.	15.22	12.50
Villa 43	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	13.16	12.48
Villa 44	Bernesga Mb.	< D.L.	8.25	< D.L.	< D.L.	< D.L.	12.72
Villa 45	Bernesga Mb.	< D.L.	5.14	32.18	< D.L.	15.84	12.23
Villa 46	Bernesga Mb.	< D.L.	6.28	< D.L.	< D.L.	12.74	11.34
Villa 47	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	14.38	7.60
Villa 48	Bernesga Mb.	< D.L.	6.18	< D.L.	< D.L.	15.12	10.80
Villa 49	Bernesga Mb.	< D.L.	5.51	< D.L.	< D.L.	9.20	11.55
Villa 50	Bernesga Mb.	< D.L.	7.27	< D.L.	< D.L.	9.34	10.09

Sample	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
Villa 51	Bernesga Mb.	< D.L.	< D.L.	554.35	26.97	187.73	116.30	< D.L.	74.52	27.12	42.39	13.32	< D.L.	169.76
Villa 52	Bernesga Mb.	< D.L.	< D.L.	538.06	21.34	213.43	131.33	< D.L.	70.38	32.86	40.37	17.73	3.63	188.99
Villa 53	Bernesga Mb.	< D.L.	< D.L.	642.78	< D.L.	177.61	92.24	< D.L.	75.83	49.68	65.62	27.13	3.10	135.35
Villa 54	Bernesga Mb.	< D.L.	< D.L.	520.62	< D.L.	178.32	125.09	< D.L.	105.09	20.62	53.19	14.82	< D.L.	169.45
Villa 55	Bernesga Mb.	< D.L.	< D.L.	547.57	< D.L.	189.70	126.03	< D.L.	101.46	21.35	57.82	13.19	< D.L.	176.52
Villa 56	Bernesga Mb.	< D.L.	< D.L.	516.35	< D.L.	197.14	120.91	< D.L.	56.66	30.30	42.90	13.62	< D.L.	168.22
Villa 57	Bernesga Mb.	< D.L.	< D.L.	603.29	< D.L.	189.67	110.84	< D.L.	82.40	39.70	60.88	26.82	< D.L.	158.44
Villa 58	Bernesga Mb.	< D.L.	< D.L.	591.40	< D.L.	182.54	110.15	< D.L.	77.38	32.99	55.65	19.61	< D.L.	157.44
Villa 59	Bernesga Mb.	< D.L.	< D.L.	577.89	< D.L.	184.41	116.23	< D.L.	81.25	37.16	50.75	20.07	< D.L.	156.12
Villa 60	Bernesga Mb.	< D.L.	< D.L.	587.36	< D.L.	200.90	110.37	< D.L.	70.94	28.99	51.27	21.11	< D.L.	153.54
Villa 61	Bernesga Mb.	< D.L.	< D.L.	593.42	< D.L.	203.34	113.23	< D.L.	95.51	42.91	60.21	25.26	2.95	153.69
Villa 62	Bernesga Mb.	< D.L.	< D.L.	647.98	< D.L.	209.86	117.25	189.26	88.79	44.53	58.24	33.49	< D.L.	149.89
Villa 63	Bernesga Mb.	< D.L.	< D.L.	564.17	< D.L.	195.35	125.34	< D.L.	75.62	26.55	39.01	12.69	< D.L.	164.56
Villa 64	Bernesga Mb.	< D.L.	< D.L.	546.82	< D.L.	176.64	127.61	< D.L.	62.68	29.76	47.65	15.36	< D.L.	169.56
Villa 65	Bernesga Mb.	< D.L.	< D.L.	568.41	< D.L.	187.28	122.64	< D.L.	78.74	25.38	42.44	14.53	< D.L.	173.33
Villa 66	Bernesga Mb.	< D.L.	< D.L.	524.63	< D.L.	170.87	108.62	< D.L.	60.54	42.09	51.02	17.91	< D.L.	185.41
Villa 67	Bernesga Mb.	< D.L.	< D.L.	551.39	< D.L.	176.02	122.95	< D.L.	84.75	34.67	46.13	19.20	2.20	178.86
Villa 68	Bernesga Mb.	< D.L.	< D.L.	510.52	21.26	172.77	103.76	< D.L.	83.11	29.39	71.95	16.92	< D.L.	189.98
Villa 69	Bernesga Mb.	< D.L.	< D.L.	536.87	< D.L.	181.88	112.58	< D.L.	82.54	37.19	46.11	16.09	< D.L.	191.14
Villa 70	Bernesga Mb.	< D.L.	< D.L.	525.64	< D.L.	178.11	117.49	< D.L.	88.41	27.21	44.08	16.63	2.50	182.28
Villa 71	Bernesga Mb.	< D.L.	< D.L.	568.98	23.70	172.84	106.61	< D.L.	95.19	29.90	47.94	20.61	< D.L.	159.69
Villa 72	Bernesga Mb.	< D.L.	< D.L.	733.89	< D.L.	158.47	90.73	< D.L.	98.16	44.89	114.92	45.61	< D.L.	127.97
Villa 73	Bernesga Mb.	< D.L.	< D.L.	522.60	< D.L.	176.64	119.60	< D.L.	62.49	40.05	43.31	24.11	< D.L.	166.27
Villa 74	Bernesga Mb.	< D.L.	< D.L.	618.56	< D.L.	177.29	109.26	< D.L.	68.71	34.05	49.51	21.74	2.55	150.66
Villa 75	Bernesga Mb.	< D.L.	< D.L.	647.93	< D.L.	163.63	122.09	< D.L.	63.29	31.66	59.68	28.13	< D.L.	151.62

Sample	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
Villa 51	Bernesga Mb.	176.34	144.03	20.65	< D.L.	< D.L.	< D.L.	< D.L.	24.59	28.03	35.44	16.32	356.89	< D.L.
Villa 52	Bernesga Mb.	177.90	138.66	20.85	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	15.52	357.85	23.23
Villa 53	Bernesga Mb.	173.01	148.94	18.58	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	26.59	47.67	37.78	461.21	< D.L.
Villa 54	Bernesga Mb.	175.82	148.97	20.54	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	11.38	275.54	< D.L.
Villa 55	Bernesga Mb.	176.11	143.22	20.14	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	14.38	325.83	< D.L.
Villa 56	Bernesga Mb.	176.54	152.46	20.60	< D.L.	< D.L.	< D.L.	< D.L.	25.02	18.61	< D.L.	14.00	287.46	< D.L.
Villa 57	Bernesga Mb.	176.11	143.10	24.20	< D.L.	< D.L.	35.28	< D.L.	< D.L.	23.46	42.14	33.45	451.36	< D.L.
Villa 58	Bernesga Mb.	175.86	134.94	19.97	< D.L.	< D.L.	< D.L.	< D.L.	25.32	23.46	44.42	28.73	402.02	< D.L.
Villa 59	Bernesga Mb.	175.69	132.27	19.64	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	22.29	38.41	25.75	365.51	< D.L.
Villa 60	Bernesga Mb.	175.35	122.34	18.61	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	13.21	280.85	< D.L.
Villa 61	Bernesga Mb.	175.90	125.98	20.16	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	26.18	39.92	35.39	441.59	< D.L.
Villa 62	Bernesga Mb.	173.95	122.25	18.78	< D.L.	< D.L.	44.92	< D.L.	< D.L.	26.94	55.21	42.14	500.90	< D.L.
Villa 63	Bernesga Mb.	176.53	129.39	20.02	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	32.83	16.61	289.30	< D.L.
Villa 64	Bernesga Mb.	176.26	122.95	17.91	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	21.09	39.82	23.98	376.93	23.46
Villa 65	Bernesga Mb.	175.94	125.64	19.45	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	13.39	306.08	< D.L.
Villa 66	Bernesga Mb.	175.11	120.24	19.73	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	19.36	< D.L.	22.21	343.80	< D.L.
Villa 67	Bernesga Mb.	175.68	129.18	19.78	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	19.93	44.27	30.12	424.62	< D.L.
Villa 68	Bernesga Mb.	175.68	132.28	19.82	< D.L.	< D.L.	< D.L.	< D.L.	26.14	26.62	37.84	29.21	460.09	< D.L.
Villa 69	Bernesga Mb.	176.09	144.72	19.46	< D.L.	< D.L.	< D.L.	12.02	< D.L.	20.34	38.80	26.09	403.32	< D.L.
Villa 70	Bernesga Mb.	176.25	135.61	20.00	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	25.40	37.71	22.08	408.44	< D.L.
Villa 71	Bernesga Mb.	174.25	143.07	18.30	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	20.67	43.90	20.90	374.47	< D.L.
Villa 72	Bernesga Mb.	172.02	119.16	17.75	< D.L.	< D.L.	66.78	< D.L.	< D.L.	33.90	82.01	61.27	612.87	< D.L.
Villa 73	Bernesga Mb.	175.69	135.12	19.22	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	22.14	357.63	25.26
Villa 74	Bernesga Mb.	175.16	124.52	19.18	< D.L.	< D.L.	48.12	< D.L.	< D.L.	22.00	48.80	33.18	463.72	33.31
Villa 75	Bernesga Mb.	174.44	120.65	18.66	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	34.12	46.09	42.80	470.27	33.25

Sample	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
Villa 51	Bernesga Mb.	< D.L.	5.80	< D.L.	< D.L.	14.18	7.92
Villa 52	Bernesga Mb.	< D.L.	6.28	< D.L.	< D.L.	13.99	10.63
Villa 53	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	5.77	12.26
Villa 54	Bernesga Mb.	< D.L.	6.96	< D.L.	< D.L.	15.52	9.38
Villa 55	Bernesga Mb.	< D.L.	7.54	< D.L.	< D.L.	14.59	10.15
Villa 56	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	14.34	10.55
Villa 57	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	6.96	9.63
Villa 58	Bernesga Mb.	< D.L.	6.29	< D.L.	< D.L.	10.64	9.50
Villa 59	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	10.17	9.49
Villa 60	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	10.52	8.35
Villa 61	Bernesga Mb.	< D.L.	6.06	< D.L.	< D.L.	6.54	10.97
Villa 62	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Villa 63	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	12.06	< D.L.
Villa 64	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	10.55	< D.L.
Villa 65	Bernesga Mb.	< D.L.	6.30	< D.L.	< D.L.	12.75	< D.L.
Villa 66	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	10.93	< D.L.
Villa 67	Bernesga Mb.	< D.L.	5.51	< D.L.	< D.L.	11.92	< D.L.
Villa 68	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	12.14	< D.L.
Villa 69	Bernesga Mb.	< D.L.	6.72	< D.L.	< D.L.	14.15	< D.L.
Villa 70	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	13.55	12.02
Villa 71	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	10.97	7.86
Villa 72	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Villa 73	Bernesga Mb.	< D.L.	6.77	< D.L.	< D.L.	12.75	< D.L.
Villa 74	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	7.83	< D.L.
Villa 75	Bernesga Mb.	< D.L.	7.87	< D.L.	< D.L.	5.18	< D.L.

Sample	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
Villa 76	Bernesga Mb.	< D.L.	< D.L.	705.91	< D.L.	182.80	108.16	< D.L.	94.80	43.23	84.36	30.85	< D.L.	136.88
Villa 77	Bernesga Mb.	< D.L.	< D.L.	594.19	< D.L.	177.87	126.21	< D.L.	71.39	38.46	39.73	18.68	3.91	158.97
Villa 78	Bernesga Mb.	< D.L.	< D.L.	548.71	< D.L.	195.66	118.78	< D.L.	53.87	31.59	35.57	14.90	< D.L.	160.58
Villa 79	Bernesga Mb.	< D.L.	< D.L.	575.20	< D.L.	191.52	114.58	176.79	56.98	42.63	48.82	17.79	< D.L.	161.56
Villa 80	Bernesga Mb.	< D.L.	< D.L.	572.54	20.68	190.69	126.64	156.55	55.90	40.49	44.61	18.20	< D.L.	162.19
Villa 81	Bernesga Mb.	< D.L.	< D.L.	583.84	< D.L.	188.39	129.38	< D.L.	63.85	39.35	51.49	20.62	2.21	153.12
Villa 82	Bernesga Mb.	< D.L.	< D.L.	633.70	< D.L.	207.17	116.28	< D.L.	73.87	39.26	49.79	26.38	3.30	157.08
Villa 83	Bernesga Mb.	< D.L.	< D.L.	564.57	< D.L.	185.83	129.12	< D.L.	102.32	31.22	61.58	16.39	< D.L.	168.03
Villa 84	Bernesga Mb.	< D.L.	< D.L.	571.85	25.36	181.02	122.35	< D.L.	67.27	27.86	39.35	14.03	2.09	161.22
Villa 85	Bernesga Mb.	< D.L.	< D.L.	679.51	< D.L.	185.02	133.75	< D.L.	80.22	33.62	50.75	38.14	< D.L.	137.29
Villa 86	Bernesga Mb.	< D.L.	< D.L.	631.29	< D.L.	189.96	120.62	< D.L.	104.40	36.64	51.20	30.56	< D.L.	150.10
Villa 87	Bernesga Mb.	< D.L.	< D.L.	748.29	< D.L.	197.23	99.48	< D.L.	93.49	57.39	85.93	61.67	3.18	131.77
Villa 88	Bernesga Mb.	< D.L.	< D.L.	632.17	< D.L.	234.35	113.83	< D.L.	66.42	31.96	40.83	28.96	< D.L.	157.05
Villa 89	Bernesga Mb.	< D.L.	< D.L.	572.82	19.62	235.55	117.82	< D.L.	65.52	35.48	< D.L.	18.68	< D.L.	160.23
Villa 90	Bernesga Mb.	< D.L.	< D.L.	551.65	< D.L.	206.43	124.19	< D.L.	100.62	27.97	51.48	14.94	< D.L.	166.71
Villa 91	Bernesga Mb.	< D.L.	< D.L.	574.77	< D.L.	190.52	121.75	< D.L.	81.14	26.28	62.20	15.30	< D.L.	171.70
Villa 92	Bernesga Mb.	< D.L.	< D.L.	570.82	< D.L.	198.15	113.66	< D.L.	95.44	36.18	57.18	21.48	< D.L.	164.45
Villa 93	Bernesga Mb.	< D.L.	< D.L.	542.77	21.68	198.73	134.05	< D.L.	51.39	32.19	< D.L.	15.15	< D.L.	165.59
Villa 94	Bernesga Mb.	< D.L.	< D.L.	599.27	22.43	214.26	115.30	< D.L.	64.27	26.64	36.47	20.90	< D.L.	157.09
Villa 95	Bernesga Mb.	< D.L.	< D.L.	526.36	< D.L.	203.57	115.21	< D.L.	61.05	23.64	< D.L.	16.80	< D.L.	175.84
Villa 96	Bernesga Mb.	< D.L.	< D.L.	581.24	< D.L.	207.85	114.28	< D.L.	63.73	33.72	37.27	25.18	< D.L.	163.63
Villa 97	Bernesga Mb.	< D.L.	< D.L.	485.63	19.71	220.55	129.95	< D.L.	49.56	13.37	< D.L.	10.97	< D.L.	180.73
Villa 98	Bernesga Mb.	< D.L.	< D.L.	591.07	21.34	214.14	115.47	< D.L.	77.26	36.71	38.17	22.51	< D.L.	161.50
Villa 99	Bernesga Mb.	< D.L.	< D.L.	587.83	< D.L.	217.13	119.59	< D.L.	75.14	32.62	43.65	22.81	2.43	163.23
Villa 100	Bernesga Mb.	< D.L.	< D.L.	641.82	< D.L.	184.97	108.85	< D.L.	75.81	43.04	56.04	30.82	3.02	132.22

Sample	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
Villa 76	Bernesga Mb.	173.17	114.52	19.48	< D.L.	< D.L.	47.72	< D.L.	< D.L.	26.35	62.77	47.47	499.81	37.14
Villa 77	Bernesga Mb.	175.33	123.20	19.31	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	18.22	311.13	< D.L.
Villa 78	Bernesga Mb.	175.68	121.41	19.27	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	19.93	< D.L.	19.46	329.40	< D.L.
Villa 79	Bernesga Mb.	175.33	123.00	19.67	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	20.33	39.33	25.45	328.27	< D.L.
Villa 80	Bernesga Mb.	176.67	124.98	20.11	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	30.17	33.80	29.11	375.97	30.77
Villa 81	Bernesga Mb.	176.85	118.14	18.25	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	40.45	24.20	326.56	< D.L.
Villa 82	Bernesga Mb.	175.86	125.80	18.86	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	22.54	< D.L.	27.21	397.88	27.86
Villa 83	Bernesga Mb.	174.61	127.21	19.28	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	22.11	369.64	< D.L.
Villa 84	Bernesga Mb.	174.01	145.41	21.15	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	37.70	19.66	356.94	32.60
Villa 85	Bernesga Mb.	175.09	132.37	18.36	< D.L.	< D.L.	49.69	< D.L.	< D.L.	22.70	46.92	42.41	490.88	36.03
Villa 86	Bernesga Mb.	172.60	134.55	18.92	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	19.85	35.67	28.37	419.06	< D.L.
Villa 87	Bernesga Mb.	174.84	137.74	18.37	5.18	< D.L.	61.23	< D.L.	< D.L.	27.82	63.85	51.03	565.47	31.80
Villa 88	Bernesga Mb.	174.11	123.47	18.48	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	22.00	39.43	29.78	381.61	26.77
Villa 89	Bernesga Mb.	173.95	144.59	19.73	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	16.32	315.92	< D.L.
Villa 90	Bernesga Mb.	173.11	113.16	18.77	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	14.08	278.82	< D.L.
Villa 91	Bernesga Mb.	173.17	117.97	18.78	< D.L.	< D.L.	< D.L.	< D.L.	28.90	< D.L.	35.29	25.97	397.10	< D.L.
Villa 92	Bernesga Mb.	172.15	118.96	19.66	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	17.47	300.06	28.88
Villa 93	Bernesga Mb.	174.83	120.03	19.17	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	13.35	268.79	< D.L.
Villa 94	Bernesga Mb.	173.32	118.79	18.44	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	18.69	308.65	< D.L.
Villa 95	Bernesga Mb.	174.44	120.93	18.38	3.76	< D.L.	< D.L.	< D.L.	26.26	< D.L.	< D.L.	10.46	241.59	< D.L.
Villa 96	Bernesga Mb.	174.10	134.60	19.37	5.08	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	22.73	351.10	< D.L.
Villa 97	Bernesga Mb.	176.42	123.60	19.66	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	137.54	< D.L.
Villa 98	Bernesga Mb.	172.80	106.48	17.54	< D.L.	< D.L.	< D.L.	< D.L.	24.05	26.76	< D.L.	24.43	367.88	< D.L.
Villa 99	Bernesga Mb.	173.92	113.22	18.71	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	21.44	65.90	26.96	412.52	< D.L.
Villa 100	Bernesga Mb.	170.19	100.09	15.59	< D.L.	< D.L.	43.20	< D.L.	27.95	21.92	52.56	37.64	448.72	32.35

Sample	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
Villa 76	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Villa 77	Bernesga Mb.	< D.L.	6.54	< D.L.	< D.L.	13.48	< D.L.
Villa 78	Bernesga Mb.	< D.L.	8.04	< D.L.	< D.L.	13.07	< D.L.
Villa 79	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	8.98	< D.L.
Villa 80	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	11.25	< D.L.
Villa 81	Bernesga Mb.	< D.L.	5.72	< D.L.	< D.L.	11.19	7.11
Villa 82	Bernesga Mb.	< D.L.	7.55	< D.L.	< D.L.	6.65	10.09
Villa 83	Bernesga Mb.	< D.L.	5.94	< D.L.	< D.L.	13.04	9.63
Villa 84	Bernesga Mb.	< D.L.	5.89	< D.L.	< D.L.	15.62	10.30
Villa 85	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	7.12	10.07
Villa 86	Bernesga Mb.	< D.L.	7.41	< D.L.	< D.L.	11.19	11.77
Villa 87	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	11.18
Villa 88	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	9.52	10.39
Villa 89	Bernesga Mb.	< D.L.	8.25	< D.L.	< D.L.	12.69	11.57
Villa 90	Bernesga Mb.	< D.L.	6.59	< D.L.	< D.L.	11.19	11.05
Villa 91	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	10.73	11.52
Villa 92	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	10.54	11.14
Villa 93	Bernesga Mb.	< D.L.	5.67	< D.L.	< D.L.	15.31	10.85
Villa 94	Bernesga Mb.	< D.L.	6.04	< D.L.	< D.L.	11.21	11.43
Villa 95	Bernesga Mb.	< D.L.	5.62	< D.L.	< D.L.	13.60	16.52
Villa 96	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	9.71	13.58
Villa 97	Bernesga Mb.	< D.L.	< D.L.	32.48	< D.L.	17.84	10.99
Villa 98	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	10.48	9.83
Villa 99	Bernesga Mb.	< D.L.	6.35	< D.L.	< D.L.	9.31	12.03
Villa 100	Bernesga Mb.	< D.L.	7.46	< D.L.	< D.L.	< D.L.	8.29

Sample	Formation	P	S Calibrated	Cl	Sc	V	Cr	Co	Ni	Cu	Zn Calibrated	As	Se	Rb Calibrated
Villa 101	Bernesga Mb.	< D.L.	< D.L.	643.78	< D.L.	181.07	101.94	256.04	67.39	38.30	56.64	28.52	< D.L.	148.63
Villa 102	Bernesga Mb.	< D.L.	< D.L.	575.68	26.05	212.43	125.67	< D.L.	64.60	25.76	40.88	18.76	< D.L.	167.43
Villa 103	Bernesga Mb.	< D.L.	< D.L.	491.96	< D.L.	198.30	131.67	< D.L.	58.17	12.54	< D.L.	8.47	< D.L.	185.24
Villa 104	Bernesga Mb.	< D.L.	< D.L.	539.01	< D.L.	211.38	116.33	< D.L.	67.85	23.53	< D.L.	13.90	< D.L.	179.99
Villa 105	Bernesga Mb.	< D.L.	< D.L.	608.99	26.35	185.28	124.57	< D.L.	62.27	32.71	37.31	19.98	2.68	159.55
Villa 106	Bernesga Mb.	< D.L.	< D.L.	562.21	28.85	196.72	128.33	< D.L.	67.72	24.88	38.35	16.45	< D.L.	168.59
Villa 107	Bernesga Mb.	< D.L.	< D.L.	596.12	< D.L.	202.06	113.68	< D.L.	83.42	29.67	39.23	22.32	< D.L.	163.03
Villa 108	Bernesga Mb.	< D.L.	608.16	853.20	< D.L.	163.78	95.37	< D.L.	113.51	48.40	159.63	48.81	< D.L.	106.12
Villa 109	Bernesga Mb.	< D.L.	< D.L.	557.32	< D.L.	163.19	81.85	< D.L.	50.37	31.17	< D.L.	21.52	2.43	118.83
Villa 110	Bernesga Mb.	< D.L.	< D.L.	614.66	< D.L.	223.28	123.43	< D.L.	74.38	42.03	< D.L.	23.04	2.35	178.04
Villa 111	Bernesga Mb.	< D.L.	315.53	706.37	< D.L.	210.50	106.39	< D.L.	72.88	49.50	57.70	35.25	2.79	133.37

Sample	Formation	Sr Calibated	Zr Calibrated	Nb Calibrated	Mo	Pd	Ag	Cd	Sn	Sb	Te	Cs	Ba Calibated	W
Villa 101	Bernesga Mb.	172.38	111.38	16.94	< D.L.	< D.L.	39.77	< D.L.	< D.L.	24.86	43.70	38.76	465.87	< D.L.
Villa 102	Bernesga Mb.	175.76	113.85	19.17	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	14.77	303.59	24.07
Villa 103	Bernesga Mb.	176.97	134.52	20.85	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	171.64	< D.L.
Villa 104	Bernesga Mb.	176.02	126.37	19.82	< D.L.	< D.L.	< D.L.	< D.L.	22.74	< D.L.	< D.L.	14.65	306.79	< D.L.
Villa 105	Bernesga Mb.	173.11	116.24	19.20	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	23.42	< D.L.	20.13	307.26	< D.L.
Villa 106	Bernesga Mb.	174.47	122.21	18.41	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	18.24	309.74	< D.L.
Villa 107	Bernesga Mb.	174.46	120.68	18.40	< D.L.	< D.L.	< D.L.	< D.L.	24.49	< D.L.	34.28	20.94	356.56	27.67
Villa 108	Bernesga Mb.	167.63	84.59	13.23	< D.L.	14.83	88.58	14.19	< D.L.	46.43	97.77	74.22	680.74	41.92
Villa 109	Bernesga Mb.	170.12	166.63	18.12	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	18.58	39.00	18.75	275.02	< D.L.
Villa 110	Bernesga Mb.	176.20	124.33	19.30	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	22.42	< D.L.	21.45	358.28	< D.L.
Villa 111	Bernesga Mb.	171.91	112.55	15.60	< D.L.	< D.L.	49.03	< D.L.	< D.L.	22.27	49.09	40.69	489.75	36.07

Sample	Formation	Au	Hg	Pb Calibrated	Bi	Th	U
Villa 101	Bernesga Mb.	< D.L.	6.05	< D.L.	< D.L.	5.40	10.65
Villa 102	Bernesga Mb.	< D.L.	8.17	< D.L.	< D.L.	10.71	7.65
Villa 103	Bernesga Mb.	< D.L.	6.24	< D.L.	< D.L.	20.81	12.80
Villa 104	Bernesga Mb.	< D.L.	6.18	< D.L.	< D.L.	15.84	11.45
Villa 105	Bernesga Mb.	< D.L.	7.98	< D.L.	< D.L.	9.73	10.73
Villa 106	Bernesga Mb.	< D.L.	7.37	< D.L.	< D.L.	13.93	11.51
Villa 107	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	11.69	10.62
Villa 108	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	9.77
Villa 109	Bernesga Mb.	< D.L.	6.18	< D.L.	< D.L.	7.22	9.52
Villa 110	Bernesga Mb.	< D.L.	7.00	< D.L.	< D.L.	11.21	14.05
Villa 111	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	8.21

Results appendix B (part 3)

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1. Geochemical ratios and proxies – Aralla section

1.1 Aralla 1 - 25

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
Aralla 1	Barrios Fm	< D.L.	7.11	-0.42	6.69	6.69
Aralla 2	Getino Bed	< D.L.	< D.L.	11.43	11.43	11.43
Aralla 3	Getino Bed	< D.L.	< D.L.	18.49	18.49	18.49
Aralla 4	Bernesga Mb.	110.32	53.21	44.54	208.07	97.76
Aralla 5	Bernesga Mb.	89.40	63.41	43.69	196.50	107.10
Aralla 6	Bernesga Mb.	81.31	59.65	45.88	186.84	105.53
Aralla 7	Bernesga Mb.	123.48	57.84	47.39	228.71	105.24
Aralla 8	Bernesga Mb.	114.35	55.92	42.84	213.12	98.76
Aralla 9	Bernesga Mb.	107.08	54.01	43.57	204.67	97.58
Aralla 10	Bernesga Mb.	110.21	56.11	42.07	208.39	98.18
Aralla 11	Bernesga Mb.	121.89	54.58	41.21	217.68	95.79
Aralla 12	Bernesga Mb.	79.52	40.99	42.10	162.61	83.09
Aralla 13	Bernesga Mb.	90.07	54.40	43.46	187.93	97.86
Aralla 14	Bernesga Mb.	86.03	50.86	45.21	182.11	96.07
Aralla 15	Bernesga Mb.	77.09	48.87	44.23	170.19	93.10
Aralla 16	Bernesga Mb.	77.09	49.12	41.20	167.41	90.32
Aralla 17	Bernesga Mb.	72.90	33.88	42.67	149.44	76.54
Aralla 18	Bernesga Mb.	84.27	53.20	43.27	180.74	96.47
Aralla 19	Bernesga Mb.	55.75	48.45	41.88	146.08	90.33
Aralla 20	Bernesga Mb.	55.13	49.16	40.65	144.93	89.80
Aralla 21	Bernesga Mb.	53.85	< D.L.	38.28	92.13	38.28
Aralla 22	Bernesga Mb.	< D.L.	18.34	41.32	59.66	59.66
Aralla 23	Bernesga Mb.	73.50	51.38	40.38	165.26	91.76
Aralla 24	Bernesga Mb.	73.79	50.61	41.21	165.60	91.81
Aralla 25	Bernesga Mb.	71.58	50.93	41.13	163.64	92.05

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
Aralla 1	Barrios Fm	< D.L.	11.20	-0.63	10.57	10.57
Aralla 2	Getino Bed	< D.L.	< D.L.	17.19	17.19	17.19
Aralla 3	Getino Bed	< D.L.	< D.L.	27.81	27.81	27.81
Aralla 4	Bernesga Mb.	131.92	83.80	66.98	282.70	150.78
Aralla 5	Bernesga Mb.	106.91	99.85	65.70	272.46	165.55
Aralla 6	Bernesga Mb.	97.23	93.93	69.00	260.16	162.93
Aralla 7	Bernesga Mb.	147.65	91.09	71.26	310.01	162.36
Aralla 8	Bernesga Mb.	136.75	88.07	64.42	289.23	152.49
Aralla 9	Bernesga Mb.	128.05	85.05	65.52	278.63	150.58
Aralla 10	Bernesga Mb.	131.79	88.36	63.26	283.41	151.62
Aralla 11	Bernesga Mb.	145.76	85.95	61.97	293.68	147.92
Aralla 12	Bernesga Mb.	95.09	64.55	63.31	222.95	127.86
Aralla 13	Bernesga Mb.	107.71	85.67	65.36	258.73	151.02
Aralla 14	Bernesga Mb.	102.88	80.09	67.99	250.97	148.09
Aralla 15	Bernesga Mb.	92.19	76.96	66.52	235.66	143.48
Aralla 16	Bernesga Mb.	92.19	77.36	61.95	231.50	139.31
Aralla 17	Bernesga Mb.	87.17	53.35	64.16	204.68	117.51
Aralla 18	Bernesga Mb.	100.77	83.77	65.07	249.62	148.84
Aralla 19	Bernesga Mb.	66.67	76.29	62.98	205.94	139.27
Aralla 20	Bernesga Mb.	65.92	77.41	61.12	204.46	138.54
Aralla 21	Bernesga Mb.	64.40	< D.L.	57.56	121.96	57.56
Aralla 22	Bernesga Mb.	< D.L.	28.88	62.13	91.01	91.01
Aralla 23	Bernesga Mb.	87.89	80.91	60.72	229.52	141.63
Aralla 24	Bernesga Mb.	88.24	79.69	61.96	229.90	141.66
Aralla 25	Bernesga Mb.	85.60	80.20	61.84	227.64	142.04

Sample	Formation	U	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al2O3*5	10Al2O3
Aralla 1	Barrios Fm	< D.L.	< D.L.	< D.L.	-0.93	< D.L.	< D.L.	-1.04	3.16	-6.37	-12.73
Aralla 2	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	6.77	4.06	25.58	51.16
Aralla 3	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	11.42	18.07	44.58	89.16
Aralla 4	Bernesga Mb.	16.49	164.90	329.80	9.51	5.42	7.27	33.44	4.64	139.06	278.12
Aralla 5	Bernesga Mb.	13.36	133.63	267.27	5.04	4.59	6.15	33.47	4.52	139.71	279.42
Aralla 6	Bernesga Mb.	12.15	121.53	243.07	4.33	4.21	5.64	35.19	4.57	146.99	293.97
Aralla 7	Bernesga Mb.	18.46	184.57	369.13	10.87	5.87	7.86	36.18	4.62	151.07	302.14
Aralla 8	Bernesga Mb.	17.09	170.93	341.87	9.75	5.56	7.46	35.66	4.88	151.18	302.37
Aralla 9	Bernesga Mb.	16.01	160.07	320.13	8.92	5.30	7.11	36.23	4.69	153.60	307.19
Aralla 10	Bernesga Mb.	16.47	164.73	329.47	9.11	5.42	7.26	34.82	4.87	147.45	294.89
Aralla 11	Bernesga Mb.	18.22	182.20	364.40	11.06	5.82	7.80	35.56	4.86	151.68	303.36
Aralla 12	Bernesga Mb.	11.89	118.87	237.73	6.51	4.12	5.53	32.91	4.93	137.88	275.75
Aralla 13	Bernesga Mb.	13.46	134.63	269.27	6.32	4.62	6.19	35.37	4.86	149.36	298.72
Aralla 14	Bernesga Mb.	12.86	128.60	257.20	6.19	4.44	5.94	36.39	4.65	153.39	306.78
Aralla 15	Bernesga Mb.	11.52	115.23	230.47	5.11	4.00	5.36	34.40	4.63	144.03	288.07
Aralla 16	Bernesga Mb.	11.52	115.23	230.47	5.08	4.00	5.36	34.57	4.56	146.74	293.47
Aralla 17	Bernesga Mb.	10.90	108.97	217.93	6.45	3.78	5.06	37.83	6.74	162.13	324.25
Aralla 18	Bernesga Mb.	12.60	125.97	251.93	5.62	4.35	5.83	34.32	4.72	144.22	288.44
Aralla 19	Bernesga Mb.	8.33	83.33	166.67	1.98	2.72	3.64	33.07	4.95	138.83	277.66
Aralla 20	Bernesga Mb.	8.24	82.40	164.80	1.79	2.67	3.58	35.73	4.81	152.87	305.74
Aralla 21	Bernesga Mb.	8.05	80.50	161.00	8.05	2.58	3.46	36.26	11.37	156.93	313.86
Aralla 22	Bernesga Mb.	< D.L.	< D.L.	< D.L.	-2.41	< D.L.	< D.L.	37.38	8.76	160.70	321.40
Aralla 23	Bernesga Mb.	10.99	109.87	219.73	4.24	3.81	5.11	37.58	4.80	162.27	324.53
Aralla 24	Bernesga Mb.	11.03	110.30	220.60	4.39	3.83	5.13	37.39	4.70	160.83	321.66
Aralla 25	Bernesga Mb.	10.70	107.00	214.00	4.02	3.71	4.97	33.72	4.47	142.54	285.07

Sample	Formation	15Al2O3	Al2O3/10	K2O*5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	200TiO2	300TiO2	K2O/Al2O3
Aralla 1	Barrios Fm	-19.10	-0.13	-0.20	< D.L.	< D.L.	23813.89	2.21	2.85	12.03	18.04	0.03
Aralla 2	Getino Bed	76.74	0.51	5.37	< D.L.	< D.L.	21661.84	2.84	3.66	143.32	214.98	0.21
Aralla 3	Getino Bed	133.73	0.89	8.69	0.41	< D.L.	114578.31	12.64	16.26	188.97	283.46	0.19
Aralla 4	Bernesga Mb.	417.18	2.78	20.93	< D.L.	10.46	-11665.55	2.51	3.23	230.12	345.17	0.15
Aralla 5	Bernesga Mb.	419.13	2.79	20.53	< D.L.	9.74	-12148.88	2.48	3.19	225.69	338.54	0.15
Aralla 6	Bernesga Mb.	440.96	2.94	21.56	< D.L.	10.58	-14360.14	2.45	3.16	234.44	351.67	0.15
Aralla 7	Bernesga Mb.	453.21	3.02	22.27	< D.L.	10.72	-15174.57	2.48	3.19	242.57	363.85	0.15
Aralla 8	Bernesga Mb.	453.55	3.02	20.13	< D.L.	10.77	-13429.24	2.66	3.42	250.62	375.93	0.13
Aralla 9	Bernesga Mb.	460.79	3.07	20.48	< D.L.	10.71	-15364.78	2.53	3.25	239.96	359.94	0.13
Aralla 10	Bernesga Mb.	442.34	2.95	19.77	< D.L.	9.68	-11749.36	2.73	3.51	261.30	391.96	0.13
Aralla 11	Bernesga Mb.	455.04	3.03	19.37	< D.L.	10.27	-13308.00	2.68	3.45	255.63	383.44	0.13
Aralla 12	Bernesga Mb.	413.63	2.76	19.79	< D.L.	< D.L.	-1978.15	3.45	4.44	226.11	339.16	0.14
Aralla 13	Bernesga Mb.	448.08	2.99	20.42	< D.L.	10.50	-12875.82	2.66	3.43	250.59	375.88	0.14
Aralla 14	Bernesga Mb.	460.18	3.07	21.25	< D.L.	11.16	-15838.80	2.48	3.18	232.85	349.28	0.14
Aralla 15	Bernesga Mb.	432.10	2.88	20.79	< D.L.	9.18	-12134.24	2.60	3.34	231.63	347.44	0.14
Aralla 16	Bernesga Mb.	440.21	2.93	19.36	< D.L.	9.92	-13848.50	2.50	3.21	222.47	333.70	0.13
Aralla 17	Bernesga Mb.	486.38	3.24	20.05	< D.L.	10.07	-2768.65	4.01	5.16	234.36	351.54	0.12
Aralla 18	Bernesga Mb.	432.66	2.88	20.33	< D.L.	9.82	-12017.29	2.61	3.36	240.92	361.38	0.14
Aralla 19	Bernesga Mb.	416.48	2.78	19.68	< D.L.	9.71	-8936.25	2.78	3.58	239.06	358.58	0.14
Aralla 20	Bernesga Mb.	458.62	3.06	19.10	< D.L.	11.51	-14899.06	2.56	3.29	224.63	336.94	0.12
Aralla 21	Bernesga Mb.	470.79	3.14	17.99	< D.L.	< D.L.	37976.02	7.95	10.23	216.27	324.40	0.11
Aralla 22	Bernesga Mb.	482.11	3.21	19.42	< D.L.	10.38	11504.09	5.40	6.95	227.04	340.56	0.12
Aralla 23	Bernesga Mb.	486.80	3.25	18.98	< D.L.	11.21	-17187.88	2.58	3.31	225.13	337.69	0.12
Aralla 24	Bernesga Mb.	482.48	3.22	19.36	< D.L.	11.13	-17434.93	2.51	3.23	234.54	351.81	0.12
Aralla 25	Bernesga Mb.	427.61	2.85	19.33	< D.L.	9.18	-12893.03	2.48	3.19	234.95	352.43	0.14

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
Aralla 1	Barrios Fm	-1.51	< D.L.	0.50	< D.L.	-6.85	-0.15	< D.L.	-4.72
Aralla 2	Getino Bed	-0.68	< D.L.	0.61	1.20	0.54	1.86	-0.27	8.84
Aralla 3	Getino Bed	-0.71	< D.L.	1.26	0.80	0.44	2.28	-0.36	9.22
Aralla 4	Bernesga Mb.	-0.82	0.04	0.56	0.29	0.34	2.91	-0.46	19.31
Aralla 5	Bernesga Mb.	-0.83	0.03	0.55	0.30	0.35	2.89	-0.46	19.70
Aralla 6	Bernesga Mb.	-0.83	0.04	0.55	0.28	0.34	2.92	-0.47	19.92
Aralla 7	Bernesga Mb.	-0.83	0.04	0.55	0.27	0.34	2.94	-0.47	19.95
Aralla 8	Bernesga Mb.	-0.88	0.04	0.58	0.27	0.35	2.88	-0.46	21.66
Aralla 9	Bernesga Mb.	-0.88	0.03	0.56	0.27	0.35	2.89	-0.46	21.70
Aralla 10	Bernesga Mb.	-0.87	0.03	0.59	0.28	0.35	2.87	-0.46	21.43
Aralla 11	Bernesga Mb.	-0.89	0.03	0.58	0.25	0.35	2.86	-0.46	22.41
Aralla 12	Bernesga Mb.	-0.84	< D.L.	0.69	0.29	0.35	2.87	-0.46	20.02
Aralla 13	Bernesga Mb.	-0.86	0.04	0.58	0.26	0.35	2.89	-0.46	21.15
Aralla 14	Bernesga Mb.	-0.86	0.04	0.55	0.26	0.34	2.91	-0.46	21.04
Aralla 15	Bernesga Mb.	-0.84	0.03	0.57	0.27	0.34	2.90	-0.46	20.11
Aralla 16	Bernesga Mb.	-0.88	0.03	0.55	0.27	0.35	2.86	-0.46	21.68
Aralla 17	Bernesga Mb.	-0.91	0.03	0.76	0.22	0.35	2.88	-0.46	23.30
Aralla 18	Bernesga Mb.	-0.85	0.03	0.57	0.27	0.35	2.89	-0.46	20.49
Aralla 19	Bernesga Mb.	-0.85	0.04	0.60	0.28	0.35	2.87	-0.46	20.25
Aralla 20	Bernesga Mb.	-0.90	0.04	0.56	0.29	0.35	2.85	-0.46	22.83
Aralla 21	Bernesga Mb.	-0.94	< D.L.	1.06	0.21	0.36	2.82	-0.45	24.57
Aralla 22	Bernesga Mb.	-0.92	0.03	0.89	0.22	0.35	2.86	-0.46	23.69
Aralla 23	Bernesga Mb.	-0.93	0.03	0.57	0.25	0.35	2.85	-0.45	24.36
Aralla 24	Bernesga Mb.	-0.92	0.03	0.56	0.25	0.35	2.86	-0.46	23.76
Aralla 25	Bernesga Mb.	-0.87	0.03	0.55	0.27	0.35	2.86	-0.46	21.09

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
Aralla 1	Barrios Fm	0.27	0.23	3.16	-70.91	< D.L.	-0.01	-2.48	-233.67	-0.03
Aralla 2	Getino Bed	0.58	1.65	4.06	15.91	1.20	0.06	0.79	27.76	0.00
Aralla 3	Getino Bed	0.97	2.70	18.07	6.36	0.80	0.16	2.03	20.85	0.00
Aralla 4	Bernesga Mb.	1.44	5.63	4.64	1.95	0.29	0.51	0.13	40.12	0.00
Aralla 5	Bernesga Mb.	1.42	5.52	4.52	1.97	0.30	0.51	0.13	42.06	0.01
Aralla 6	Bernesga Mb.	1.48	5.79	4.57	1.90	0.28	0.53	0.12	39.45	0.00
Aralla 7	Bernesga Mb.	1.51	5.97	4.62	1.84	0.27	0.54	0.12	39.42	0.00
Aralla 8	Bernesga Mb.	1.40	5.42	4.88	1.87	0.27	0.53	0.13	41.01	0.00
Aralla 9	Bernesga Mb.	1.42	5.51	4.69	1.88	0.27	0.53	0.12	40.80	0.00
Aralla 10	Bernesga Mb.	1.38	5.33	4.87	1.90	0.28	0.53	0.13	41.44	0.01
Aralla 11	Bernesga Mb.	1.35	5.23	4.86	1.79	0.25	0.56	0.13	42.04	0.01
Aralla 12	Bernesga Mb.	1.38	5.33	4.93	1.96	0.29	0.51	0.18	38.86	0.00
Aralla 13	Bernesga Mb.	1.41	5.50	4.86	1.82	0.26	0.55	0.13	40.72	0.00
Aralla 14	Bernesga Mb.	1.46	5.71	4.65	1.82	0.26	0.55	0.12	40.10	0.00
Aralla 15	Bernesga Mb.	1.43	5.59	4.63	1.84	0.27	0.54	0.13	42.02	0.01
Aralla 16	Bernesga Mb.	1.35	5.23	4.56	1.85	0.27	0.54	0.12	44.86	0.01
Aralla 17	Bernesga Mb.	1.39	5.40	6.74	1.65	0.22	0.61	0.18	38.21	0.00
Aralla 18	Bernesga Mb.	1.41	5.47	4.72	1.84	0.27	0.54	0.13	40.88	0.00
Aralla 19	Bernesga Mb.	1.37	5.31	4.95	1.92	0.28	0.52	0.14	41.34	0.01
Aralla 20	Bernesga Mb.	1.34	5.16	4.81	1.94	0.29	0.52	0.12	42.42	0.01
Aralla 21	Bernesga Mb.	1.28	4.87	11.37	1.63	0.21	0.61	0.36	34.20	0.00
Aralla 22	Bernesga Mb.	1.36	5.24	8.76	1.65	0.22	0.61	0.24	37.38	0.00
Aralla 23	Bernesga Mb.	1.33	5.13	4.80	1.76	0.25	0.57	0.11	43.63	0.01
Aralla 24	Bernesga Mb.	1.35	5.23	4.70	1.78	0.25	0.56	0.11	43.41	0.01
Aralla 25	Bernesga Mb.	1.35	5.22	4.47	1.85	0.27	0.54	0.12	44.46	0.01

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Ti Cal (ppm)	Zr/Sc	Cr/Th	Th/Sc
Aralla 1	Barrios Fm	-21.18	-0.03	-170.89	< D.L.	< D.L.	< D.L.	< D.L.	1.81	< D.L.	< D.L.	0.93	360.42	< D.L.	< D.L.	< D.L.
Aralla 2	Getino Bed	7.14	0.11	631.54	< D.L.	59.88	0.28	0.92	3.93	< D.L.	< D.L.	< D.L.	4295.37	< D.L.	< D.L.	< D.L.
Aralla 3	Getino Bed	9.44	0.04	248.23	0.70	195.88	0.64	2.00	5.28	< D.L.	< D.L.	< D.L.	5663.61	< D.L.	< D.L.	< D.L.
Aralla 4	Bernesga Mb.	24.17	0.05	296.25	< D.L.	192.04	0.16	0.82	1.98	95.62	19.24	6.98	6896.66	9.82	6.57	1.22
Aralla 5	Bernesga Mb.	24.76	0.05	299.31	< D.L.	201.92	0.20	0.80	1.80	< D.L.	< D.L.	8.32	6764.11	< D.L.	5.56	< D.L.
Aralla 6	Bernesga Mb.	25.08	0.05	290.84	< D.L.	182.58	0.20	0.81	1.33	< D.L.	10.91	7.83	7026.38	7.82	5.84	1.13
Aralla 7	Bernesga Mb.	24.91	0.05	302.71	< D.L.	205.00	0.20	0.82	1.74	< D.L.	< D.L.	7.59	7269.88	< D.L.	6.35	< D.L.
Aralla 8	Bernesga Mb.	24.13	0.05	304.42	< D.L.	205.30	0.16	0.87	2.39	95.06	< D.L.	7.34	7511.24	< D.L.	6.54	< D.L.
Aralla 9	Bernesga Mb.	25.60	0.05	293.04	< D.L.	167.73	0.15	0.80	1.37	< D.L.	< D.L.	7.09	7191.67	< D.L.	6.25	< D.L.
Aralla 10	Bernesga Mb.	22.57	0.05	306.60	< D.L.	201.44	0.17	0.88	2.06	90.63	< D.L.	7.36	7831.40	< D.L.	6.55	< D.L.
Aralla 11	Bernesga Mb.	23.73	0.05	324.63	< D.L.	211.13	0.16	0.96	2.18	< D.L.	13.65	7.16	7661.30	6.29	7.26	0.83
Aralla 12	Bernesga Mb.	24.39	0.05	314.82	< D.L.	207.79	0.34	0.76	1.74	63.03	< D.L.	5.38	6776.58	< D.L.	7.28	< D.L.
Aralla 13	Bernesga Mb.	23.84	0.06	337.21	< D.L.	220.84	0.24	0.86	1.95	< D.L.	< D.L.	7.14	7510.20	< D.L.	6.68	< D.L.
Aralla 14	Bernesga Mb.	26.35	0.05	303.90	< D.L.	149.61	0.19	0.67	1.07	< D.L.	< D.L.	6.67	6978.68	< D.L.	5.70	< D.L.
Aralla 15	Bernesga Mb.	24.87	0.05	311.74	< D.L.	158.88	0.20	0.68	1.11	< D.L.	12.32	6.41	6941.96	9.01	6.21	1.22
Aralla 16	Bernesga Mb.	26.38	0.05	295.03	< D.L.	197.29	0.23	0.79	1.49	< D.L.	< D.L.	6.45	6667.38	< D.L.	7.11	< D.L.
Aralla 17	Bernesga Mb.	27.67	0.06	357.27	< D.L.	203.48	0.26	0.83	1.91	< D.L.	< D.L.	4.45	7023.77	< D.L.	9.59	< D.L.
Aralla 18	Bernesga Mb.	23.95	0.06	344.69	< D.L.	182.70	0.15	0.82	1.82	< D.L.	< D.L.	6.98	7220.38	< D.L.	6.53	< D.L.
Aralla 19	Bernesga Mb.	23.23	0.05	324.53	< D.L.	189.53	0.17	0.86	1.81	81.99	< D.L.	6.36	7164.59	< D.L.	7.33	< D.L.
Aralla 20	Bernesga Mb.	27.22	0.05	318.86	< D.L.	166.37	0.18	0.75	1.50	< D.L.	< D.L.	6.45	6732.13	< D.L.	6.31	< D.L.
Aralla 21	Bernesga Mb.	29.03	0.06	374.47	1.60	194.95	0.36	0.77	2.27	< D.L.	< D.L.	< D.L.	6481.60	< D.L.	< D.L.	< D.L.
Aralla 22	Bernesga Mb.	28.31	0.06	356.39	< D.L.	199.94	0.38	0.79	1.54	< D.L.	< D.L.	2.41	6804.56	< D.L.	15.89	< D.L.
Aralla 23	Bernesga Mb.	28.83	0.05	313.89	< D.L.	188.71	0.27	0.80	1.26	< D.L.	11.92	6.74	6747.23	8.08	6.55	1.16
Aralla 24	Bernesga Mb.	27.43	0.05	324.78	< D.L.	185.56	0.23	0.82	1.21	< D.L.	11.56	6.64	7029.19	8.30	6.94	1.13
Aralla 25	Bernesga Mb.	24.27	0.05	317.96	< D.L.	164.58	0.20	0.72	1.16	< D.L.	9.10	6.68	7041.68	6.63	6.19	0.91

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
Aralla 1	Barrios Fm	8.58	0.12	0.22	-37.52	< D.L.	-15.24	< D.L.	< D.L.	< D.L.
Aralla 2	Getino Bed	8.95	0.11	0.06	39.24	9.70	123.38	< D.L.	0.23	4.26
Aralla 3	Getino Bed	6.77	0.15	0.04	10.76	3.39	17.99	< D.L.	0.38	2.64
Aralla 4	Bernesga Mb.	1.01	0.99	0.02	7.27	1.23	1.06	< D.L.	0.41	2.41
Aralla 5	Bernesga Mb.	0.96	1.04	0.02	7.37	1.20	1.29	< D.L.	0.45	2.25
Aralla 6	Bernesga Mb.	0.95	1.05	0.02	6.71	1.18	1.09	< D.L.	0.61	1.65
Aralla 7	Bernesga Mb.	0.93	1.08	0.02	6.77	1.12	0.85	< D.L.	0.47	2.11
Aralla 8	Bernesga Mb.	1.06	0.94	0.02	7.13	1.22	1.29	< D.L.	0.37	2.74
Aralla 9	Bernesga Mb.	1.06	0.94	0.02	7.21	1.33	1.15	< D.L.	0.58	1.73
Aralla 10	Bernesga Mb.	1.08	0.93	0.02	6.93	1.22	1.28	< D.L.	0.43	2.34
Aralla 11	Bernesga Mb.	1.00	1.00	0.02	6.92	1.05	1.27	< D.L.	0.44	2.27
Aralla 12	Bernesga Mb.	1.02	0.98	0.02	7.30	1.34	2.09	< D.L.	0.44	2.27
Aralla 13	Bernesga Mb.	0.90	1.12	0.02	6.68	1.04	0.70	< D.L.	0.44	2.27
Aralla 14	Bernesga Mb.	0.90	1.11	0.02	6.69	1.34	1.06	< D.L.	0.62	1.60
Aralla 15	Bernesga Mb.	0.81	1.23	0.02	6.38	1.19	1.11	< D.L.	0.61	1.63
Aralla 16	Bernesga Mb.	0.82	1.23	0.02	6.27	1.03	1.25	< D.L.	0.53	1.88
Aralla 17	Bernesga Mb.	0.80	1.24	0.02	6.27	0.96	3.26	< D.L.	0.44	2.28
Aralla 18	Bernesga Mb.	0.81	1.23	0.02	6.47	0.99	1.19	< D.L.	0.45	2.22
Aralla 19	Bernesga Mb.	0.89	1.12	0.02	6.57	1.04	1.43	< D.L.	0.47	2.11
Aralla 20	Bernesga Mb.	0.95	1.05	0.02	7.30	1.26	0.97	< D.L.	0.50	1.99
Aralla 21	Bernesga Mb.	1.09	0.92	0.02	7.73	1.40	5.04	< D.L.	0.34	2.94
Aralla 22	Bernesga Mb.	0.90	1.11	0.02	6.87	1.14	3.64	< D.L.	0.51	1.95
Aralla 23	Bernesga Mb.	0.85	1.17	0.02	6.56	1.06	1.30	< D.L.	0.64	1.57
Aralla 24	Bernesga Mb.	0.87	1.15	0.02	6.76	1.06	1.28	< D.L.	0.68	1.47
Aralla 25	Bernesga Mb.	0.85	1.18	0.02	6.58	1.17	0.61	< D.L.	0.62	1.61

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
Aralla 1	Barrios Fm	-22.77	< D.L.	-24.81	< D.L.	< D.L.	-13.38	< D.L.	< D.L.
Aralla 2	Getino Bed	20.22	< D.L.	43.28	< D.L.	< D.L.	5.88	11.95	10.16
Aralla 3	Getino Bed	59.87	< D.L.	40.56	8.83	< D.L.	6.21	26.15	15.36
Aralla 4	Bernesga Mb.	1.43	1.12	22.54	< D.L.	2.22	0.96	3.69	9.35
Aralla 5	Bernesga Mb.	1.17	0.90	21.07	< D.L.	1.98	0.90	4.27	9.39
Aralla 6	Bernesga Mb.	0.73	0.78	14.56	< D.L.	< D.L.	< D.L.	2.92	8.82
Aralla 7	Bernesga Mb.	0.60	1.15	19.08	< D.L.	< D.L.	< D.L.	3.77	9.05
Aralla 8	Bernesga Mb.	1.98	1.07	24.62	< D.L.	2.81	1.04	3.84	8.99
Aralla 9	Bernesga Mb.	0.99	0.98	14.12	< D.L.	2.26	0.99	2.14	8.18
Aralla 10	Bernesga Mb.	1.73	1.06	21.66	< D.L.	5.16	1.63	3.63	9.28
Aralla 11	Bernesga Mb.	1.35	1.13	22.07	< D.L.	2.04	1.38	3.44	9.71
Aralla 12	Bernesga Mb.	1.93	0.81	18.29	< D.L.	2.15	2.01	6.19	8.05
Aralla 13	Bernesga Mb.	1.84	0.85	20.55	< D.L.	< D.L.	0.73	4.91	9.06
Aralla 14	Bernesga Mb.	0.41	0.79	11.27	< D.L.	< D.L.	0.95	2.18	7.03
Aralla 15	Bernesga Mb.	0.67	0.76	12.75	< D.L.	< D.L.	1.01	2.59	7.83
Aralla 16	Bernesga Mb.	0.51	0.74	16.62	< D.L.	< D.L.	< D.L.	3.85	8.86
Aralla 17	Bernesga Mb.	2.33	0.64	17.02	< D.L.	< D.L.	3.41	4.40	7.45
Aralla 18	Bernesga Mb.	0.62	0.83	19.86	< D.L.	< D.L.	1.49	3.02	8.95
Aralla 19	Bernesga Mb.	0.87	0.57	20.09	< D.L.	2.05	1.32	3.39	9.51
Aralla 20	Bernesga Mb.	0.54	0.51	14.99	< D.L.	2.47	0.75	2.73	7.55
Aralla 21	Bernesga Mb.	2.72	0.48	16.85	2.45	< D.L.	3.92	6.00	5.74
Aralla 22	Bernesga Mb.	1.89	< D.L.	13.15	< D.L.	< D.L.	2.01	5.01	6.74
Aralla 23	Bernesga Mb.	0.63	0.64	12.11	< D.L.	< D.L.	0.68	3.28	7.71
Aralla 24	Bernesga Mb.	0.33	0.65	11.97	< D.L.	1.73	0.60	2.78	8.12
Aralla 25	Bernesga Mb.	0.34	0.71	13.25	< D.L.	2.37	< D.L.	2.69	8.22

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
Aralla 1	Barrios Fm	< D.L.	-254.94	-612.27	208.46	-117.41	1.00	-418.41	< D.L.
Aralla 2	Getino Bed	< D.L.	80.86	164.62	1358.89	98.56	0.78	112.50	< D.L.
Aralla 3	Getino Bed	< D.L.	58.72	100.52	138.18	52.01	0.61	68.69	< D.L.
Aralla 4	Bernesga Mb.	0.24	20.12	29.55	12.05	11.50	0.86	20.19	0.12
Aralla 5	Bernesga Mb.	< D.L.	19.56	29.47	15.04	11.26	0.83	20.14	< D.L.
Aralla 6	Bernesga Mb.	< D.L.	19.34	28.02	11.89	10.42	0.83	19.15	< D.L.
Aralla 7	Bernesga Mb.	< D.L.	16.94	27.25	9.39	10.17	0.83	18.62	< D.L.
Aralla 8	Bernesga Mb.	0.26	15.75	27.10	13.32	10.99	0.87	18.52	0.14
Aralla 9	Bernesga Mb.	< D.L.	14.96	26.93	11.79	10.88	0.87	18.40	< D.L.
Aralla 10	Bernesga Mb.	0.24	15.58	27.69	13.48	11.35	0.86	18.92	0.13
Aralla 11	Bernesga Mb.	< D.L.	15.58	27.18	12.92	10.17	0.87	18.57	< D.L.
Aralla 12	Bernesga Mb.	0.29	15.53	29.77	21.99	10.76	0.75	20.34	0.15
Aralla 13	Bernesga Mb.	< D.L.	15.13	27.09	7.36	9.42	0.81	18.51	< D.L.
Aralla 14	Bernesga Mb.	< D.L.	13.88	26.78	11.12	9.46	0.84	18.30	< D.L.
Aralla 15	Bernesga Mb.	< D.L.	14.58	28.64	12.77	9.32	0.83	19.57	< D.L.
Aralla 16	Bernesga Mb.	< D.L.	14.52	28.03	13.97	9.13	0.81	19.16	< D.L.
Aralla 17	Bernesga Mb.	< D.L.	12.83	25.62	29.11	7.18	0.79	17.51	< D.L.
Aralla 18	Bernesga Mb.	< D.L.	14.45	28.29	13.00	8.87	0.87	19.33	< D.L.
Aralla 19	Bernesga Mb.	0.25	15.18	29.59	15.89	9.88	0.86	20.22	0.13
Aralla 20	Bernesga Mb.	< D.L.	13.71	26.76	9.74	9.52	0.85	18.29	< D.L.
Aralla 21	Bernesga Mb.	< D.L.	12.74	28.72	37.36	8.06	0.74	19.63	< D.L.
Aralla 22	Bernesga Mb.	< D.L.	12.62	26.42	31.08	7.72	0.72	18.05	< D.L.
Aralla 23	Bernesga Mb.	< D.L.	12.98	25.20	12.53	8.21	0.79	17.22	< D.L.
Aralla 24	Bernesga Mb.	< D.L.	12.69	25.27	12.60	8.60	0.81	17.27	< D.L.
Aralla 25	Bernesga Mb.	< D.L.	14.12	28.38	6.95	9.65	0.83	19.40	< D.L.

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
Aralla 1	Barrios Fm	< D.L.	< D.L.	0.51	< D.L.	< D.L.	-80.20	< D.L.	1.53	< D.L.	< D.L.	< D.L.
Aralla 2	Getino Bed	< D.L.	< D.L.	1.36	< D.L.	< D.L.	3.78	0.58	5.48	0.00	0.08	0.82
Aralla 3	Getino Bed	< D.L.	< D.L.	1.02	< D.L.	< D.L.	10.40	1.02	28.25	0.01	0.11	1.08
Aralla 4	Bernesga Mb.	1.27	0.79	1.14	10.27	0.51	0.86	-0.07	2.10	0.01	0.04	0.43
Aralla 5	Bernesga Mb.	1.87	0.54	1.17	12.46	0.46	0.86	-0.06	1.72	0.01	0.06	0.59
Aralla 6	Bernesga Mb.	1.93	0.52	1.10	13.35	< D.L.	0.81	-0.09	1.14	0.01	< D.L.	< D.L.
Aralla 7	Bernesga Mb.	1.23	0.81	1.25	8.81	< D.L.	0.80	-0.10	0.96	0.01	< D.L.	< D.L.
Aralla 8	Bernesga Mb.	1.29	0.78	1.35	10.29	0.38	0.94	-0.03	3.17	0.01	0.03	0.31
Aralla 9	Bernesga Mb.	1.33	0.75	1.41	11.06	0.44	0.88	-0.05	1.61	0.01	< D.L.	< D.L.
Aralla 10	Bernesga Mb.	1.34	0.75	1.40	10.75	0.20	0.99	-0.01	2.70	0.01	< D.L.	< D.L.
Aralla 11	Bernesga Mb.	1.18	0.85	1.30	8.96	0.56	0.99	0.00	2.16	0.02	< D.L.	< D.L.
Aralla 12	Bernesga Mb.	1.36	0.74	1.37	13.21	0.38	1.25	0.10	2.81	0.01	0.04	0.38
Aralla 13	Bernesga Mb.	1.59	0.63	1.32	11.06	< D.L.	0.93	-0.03	2.91	0.01	< D.L.	< D.L.
Aralla 14	Bernesga Mb.	1.56	0.64	1.44	11.94	< D.L.	0.83	-0.08	0.67	0.01	< D.L.	< D.L.
Aralla 15	Bernesga Mb.	1.67	0.60	1.43	12.33	< D.L.	0.89	-0.05	1.02	0.01	< D.L.	< D.L.
Aralla 16	Bernesga Mb.	1.68	0.60	1.40	12.30	< D.L.	0.92	-0.04	0.79	0.01	< D.L.	< D.L.
Aralla 17	Bernesga Mb.	1.22	0.82	1.26	11.30	< D.L.	1.43	0.16	3.99	0.01	< D.L.	< D.L.
Aralla 18	Bernesga Mb.	1.66	0.60	1.37	10.75	< D.L.	0.92	-0.04	0.95	0.01	< D.L.	< D.L.
Aralla 19	Bernesga Mb.	2.29	0.44	1.38	17.42	0.28	1.01	0.00	1.28	0.01	< D.L.	< D.L.
Aralla 20	Bernesga Mb.	2.35	0.43	1.43	18.70	0.21	0.96	-0.02	0.87	0.01	< D.L.	< D.L.
Aralla 21	Bernesga Mb.	< D.L.	< D.L.	1.21	16.63	< D.L.	3.16	0.50	4.51	0.01	0.05	0.45
Aralla 22	Bernesga Mb.	< D.L.	< D.L.	1.29	< D.L.	< D.L.	1.99	0.30	3.21	0.01	< D.L.	< D.L.
Aralla 23	Bernesga Mb.	1.84	0.54	1.38	12.83	< D.L.	0.97	-0.01	1.08	0.01	< D.L.	< D.L.
Aralla 24	Bernesga Mb.	1.81	0.55	1.45	13.27	0.38	0.93	-0.03	0.57	0.01	< D.L.	< D.L.
Aralla 25	Bernesga Mb.	1.87	0.53	1.49	13.61	0.30	0.92	-0.04	0.51	0.01	< D.L.	< D.L.

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	V (wt%)	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
Aralla 1	Barrios Fm	< D.L.	< D.L.	< D.L.	-0.93	0.00	0.36	7.91	415394.50	90.20	8.24
Aralla 2	Getino Bed	1648.28	0.12	0.16	< D.L.	0.01	4.32	26.69	407598.11	482.73	2.79
Aralla 3	Getino Bed	2161.39	0.16	0.22	< D.L.	0.02	5.74	24.54	312442.17	1527.27	28.36
Aralla 4	Bernesga Mb.	861.37	0.06	0.09	9.51	0.03	7.03	16.93	400285.00	684.47	-24.45
Aralla 5	Bernesga Mb.	1176.86	0.09	0.12	5.04	0.03	6.90	16.65	405821.69	764.12	-24.70
Aralla 6	Bernesga Mb.	< D.L.	< D.L.	< D.L.	4.33	0.02	7.16	16.22	416533.77	453.73	-26.46
Aralla 7	Bernesga Mb.	< D.L.	< D.L.	< D.L.	10.87	0.03	7.41	16.26	420442.15	603.30	-27.33
Aralla 8	Bernesga Mb.	620.95	0.05	0.06	9.75	0.04	7.66	17.58	424528.13	780.05	-26.81
Aralla 9	Bernesga Mb.	< D.L.	< D.L.	< D.L.	8.92	0.02	7.32	17.70	432662.25	508.17	-27.76
Aralla 10	Bernesga Mb.	< D.L.	< D.L.	< D.L.	9.11	0.03	7.98	17.71	417334.53	820.63	-25.73
Aralla 11	Bernesga Mb.	< D.L.	< D.L.	< D.L.	11.06	0.04	7.82	16.32	414545.83	773.03	-26.85
Aralla 12	Bernesga Mb.	750.21	0.06	0.07	6.51	0.03	6.89	15.70	399217.00	1196.20	-21.31
Aralla 13	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.32	0.03	7.65	14.89	412301.68	891.63	-26.37
Aralla 14	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.19	0.02	7.09	15.36	422790.56	507.67	-27.88
Aralla 15	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.11	0.02	7.06	14.21	400774.70	549.23	-25.34
Aralla 16	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.08	0.03	6.80	14.17	409229.18	597.40	-26.27
Aralla 17	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.45	0.03	7.15	12.32	421902.08	1340.90	-25.19
Aralla 18	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.62	0.03	7.36	13.55	401146.13	688.53	-25.33
Aralla 19	Bernesga Mb.	< D.L.	< D.L.	< D.L.	1.98	0.03	7.30	14.51	396338.99	690.92	-23.58
Aralla 20	Bernesga Mb.	< D.L.	< D.L.	< D.L.	1.79	0.02	6.85	15.41	438860.21	563.17	-27.51
Aralla 21	Bernesga Mb.	908.12	0.07	0.09	8.05	0.03	6.58	13.38	405588.36	1648.10	-11.94
Aralla 22	Bernesga Mb.	< D.L.	< D.L.	< D.L.	-2.41	0.02	6.92	13.12	417272.04	1193.67	-20.61
Aralla 23	Bernesga Mb.	< D.L.	< D.L.	< D.L.	4.24	0.02	6.88	14.10	438904.92	678.97	-29.62
Aralla 24	Bernesga Mb.	< D.L.	< D.L.	< D.L.	4.39	0.02	7.17	14.63	437744.39	575.43	-29.48
Aralla 25	Bernesga Mb.	< D.L.	< D.L.	< D.L.	4.02	0.02	7.17	14.56	396860.21	405.60	-25.35

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
Aralla 1	Barrios Fm	3.85	-0.69	3.48	0.53	128.02	126.92
Aralla 2	Getino Bed	1.30	2.76	2.79	0.32	87.48	89.84
Aralla 3	Getino Bed	13.25	4.81	15.84	0.46	88.13	90.22
Aralla 4	Bernesga Mb.	-11.43	15.02	-3.36	0.77	94.25	95.08
Aralla 5	Bernesga Mb.	-11.54	15.09	-3.44	0.77	94.38	95.17
Aralla 6	Bernesga Mb.	-12.37	15.87	-3.84	0.76	94.44	95.22
Aralla 7	Bernesga Mb.	-12.77	16.32	-4.01	0.76	94.45	95.23
Aralla 8	Bernesga Mb.	-12.53	16.33	-3.76	0.77	94.94	95.59
Aralla 9	Bernesga Mb.	-12.97	16.59	-4.07	0.76	94.95	95.60
Aralla 10	Bernesga Mb.	-12.03	15.92	-3.47	0.78	94.89	95.54
Aralla 11	Bernesga Mb.	-12.55	16.38	-3.75	0.77	95.13	95.73
Aralla 12	Bernesga Mb.	-9.96	14.89	-1.96	0.84	94.49	95.24
Aralla 13	Bernesga Mb.	-12.32	16.13	-3.66	0.77	94.81	95.48
Aralla 14	Bernesga Mb.	-13.03	16.57	-4.13	0.76	94.77	95.46
Aralla 15	Bernesga Mb.	-11.84	15.56	-3.49	0.77	94.51	95.26
Aralla 16	Bernesga Mb.	-12.28	15.85	-3.77	0.77	94.95	95.59
Aralla 17	Bernesga Mb.	-11.77	17.51	-2.37	0.83	95.33	95.88
Aralla 18	Bernesga Mb.	-11.84	15.58	-3.47	0.77	94.62	95.35
Aralla 19	Bernesga Mb.	-11.02	14.99	-2.97	0.79	94.56	95.29
Aralla 20	Bernesga Mb.	-12.86	16.51	-3.99	0.76	95.23	95.80
Aralla 21	Bernesga Mb.	-5.58	16.95	3.52	2.71	95.60	96.09
Aralla 22	Bernesga Mb.	-9.63	17.36	-0.31	0.97	95.42	95.95
Aralla 23	Bernesga Mb.	-13.84	17.52	-4.43	0.76	95.56	96.06
Aralla 24	Bernesga Mb.	-13.78	17.37	-4.45	0.76	95.43	95.96
Aralla 25	Bernesga Mb.	-11.84	15.39	-3.58	0.77	94.80	95.47

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
Aralla 1	Barrios Fm	122.11	-7.38	-7.65	-7.38
Aralla 2	Getino Bed	75.58	-5.18	-5.42	-5.16
Aralla 3	Getino Bed	76.72	6.77	-7.53	6.80
Aralla 4	Bernesga Mb.	83.17	2.54	0.10	2.57
Aralla 5	Bernesga Mb.	83.49	2.82	0.07	2.85
Aralla 6	Bernesga Mb.	83.55	3.24	0.42	3.27
Aralla 7	Bernesga Mb.	83.50	3.52	0.69	3.55
Aralla 8	Bernesga Mb.	84.79	4.11	-0.02	4.15
Aralla 9	Bernesga Mb.	84.79	4.29	0.15	4.33
Aralla 10	Bernesga Mb.	84.69	3.88	-0.06	3.92
Aralla 11	Bernesga Mb.	85.30	4.40	-0.19	4.43
Aralla 12	Bernesga Mb.	83.79	5.27	0.58	5.30
Aralla 13	Bernesga Mb.	84.46	3.88	0.07	3.91
Aralla 14	Bernesga Mb.	84.31	4.04	0.34	4.07
Aralla 15	Bernesga Mb.	83.75	3.45	0.24	3.48
Aralla 16	Bernesga Mb.	84.89	3.94	-0.23	3.97
Aralla 17	Bernesga Mb.	85.72	7.18	-0.33	7.21
Aralla 18	Bernesga Mb.	84.05	3.41	0.05	3.44
Aralla 19	Bernesga Mb.	83.95	3.10	-0.28	3.14
Aralla 20	Bernesga Mb.	85.56	4.55	-0.42	4.58
Aralla 21	Bernesga Mb.	86.56	12.94	-1.34	12.97
Aralla 22	Bernesga Mb.	85.98	8.67	-1.10	8.70
Aralla 23	Bernesga Mb.	86.36	5.78	-0.30	5.81
Aralla 24	Bernesga Mb.	86.02	5.38	-0.15	5.41
Aralla 25	Bernesga Mb.	84.53	3.42	-0.18	3.46

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
Aralla 1	Barrios Fm	-7.37	3.18	-36.13	-0.66
Aralla 2	Getino Bed	-4.81	3.10	-38.31	0.55
Aralla 3	Getino Bed	-6.64	3.03	-58.89	0.33
Aralla 4	Bernesga Mb.	1.60	4.78	-41.88	0.88
Aralla 5	Bernesga Mb.	1.55	4.74	-42.25	0.89
Aralla 6	Bernesga Mb.	1.96	4.73	-43.43	0.89
Aralla 7	Bernesga Mb.	2.27	4.72	-44.07	0.89
Aralla 8	Bernesga Mb.	1.43	4.55	-44.06	0.89
Aralla 9	Bernesga Mb.	1.62	4.58	-44.69	0.89
Aralla 10	Bernesga Mb.	1.37	4.49	-43.43	0.88
Aralla 11	Bernesga Mb.	1.22	4.59	-42.95	0.89
Aralla 12	Bernesga Mb.	2.01	4.51	-44.98	0.85
Aralla 13	Bernesga Mb.	1.54	4.66	-43.10	0.89
Aralla 14	Bernesga Mb.	1.86	4.75	-43.96	0.90
Aralla 15	Bernesga Mb.	1.74	4.80	-42.25	0.88
Aralla 16	Bernesga Mb.	1.18	4.77	-42.25	0.89
Aralla 17	Bernesga Mb.	1.12	4.62	-48.00	0.85
Aralla 18	Bernesga Mb.	1.51	4.74	-42.02	0.88
Aralla 19	Bernesga Mb.	1.15	4.69	-41.79	0.87
Aralla 20	Bernesga Mb.	0.97	4.55	-44.88	0.89
Aralla 21	Bernesga Mb.	-0.01	4.13	-58.02	0.73
Aralla 22	Bernesga Mb.	0.32	4.50	-51.35	0.81
Aralla 23	Bernesga Mb.	1.09	4.65	-45.01	0.90
Aralla 24	Bernesga Mb.	1.26	4.62	-44.77	0.90
Aralla 25	Bernesga Mb.	1.23	4.77	-40.98	0.89

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
Aralla 1	Barrios Fm	52.62	-2.75	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 2	Getino Bed	5.67	1.27	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 3	Getino Bed	19.12	2.44	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 4	Bernesga Mb.	3.12	0.41	4.00	4.00	4.00	< D.L.	12.00
Aralla 5	Bernesga Mb.	3.14	0.40	4.00	4.00	1.00	< D.L.	9.00
Aralla 6	Bernesga Mb.	2.99	0.39	4.00	4.00	1.00	< D.L.	9.00
Aralla 7	Bernesga Mb.	2.92	0.39	4.00	4.00	1.00	< D.L.	9.00
Aralla 8	Bernesga Mb.	3.03	0.38	4.00	4.00	4.00	< D.L.	12.00
Aralla 9	Bernesga Mb.	3.01	0.37	4.00	4.00	1.00	< D.L.	9.00
Aralla 10	Bernesga Mb.	2.98	0.39	4.00	4.00	4.00	< D.L.	12.00
Aralla 11	Bernesga Mb.	3.00	0.38	4.00	4.00	1.00	< D.L.	9.00
Aralla 12	Bernesga Mb.	4.36	0.42	4.00	4.00	4.00	< D.L.	12.00
Aralla 13	Bernesga Mb.	3.04	0.39	4.00	4.00	1.00	< D.L.	9.00
Aralla 14	Bernesga Mb.	3.04	0.38	4.00	4.00	1.00	< D.L.	9.00
Aralla 15	Bernesga Mb.	3.21	0.40	4.00	4.00	1.00	< D.L.	9.00
Aralla 16	Bernesga Mb.	3.21	0.37	4.00	4.00	1.00	< D.L.	9.00
Aralla 17	Bernesga Mb.	4.90	0.41	4.00	4.00	1.00	< D.L.	9.00
Aralla 18	Bernesga Mb.	3.10	0.40	4.00	4.00	1.00	< D.L.	9.00
Aralla 19	Bernesga Mb.	3.33	0.41	4.00	4.00	4.00	< D.L.	12.00
Aralla 20	Bernesga Mb.	3.25	0.36	4.00	4.00	1.00	< D.L.	9.00
Aralla 21	Bernesga Mb.	10.51	0.55	4.00	4.00	1.00	< D.L.	9.00
Aralla 22	Bernesga Mb.	6.80	0.47	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 23	Bernesga Mb.	3.27	0.34	4.00	4.00	1.00	< D.L.	9.00
Aralla 24	Bernesga Mb.	3.06	0.35	4.00	4.00	1.00	< D.L.	9.00
Aralla 25	Bernesga Mb.	3.02	0.38	4.00	4.00	1.00	< D.L.	9.00

1.2 Aralla 26 - 50

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
Aralla 26	Bernesga Mb.	< D.L.	< D.L.	27.12	27.12	27.12
Aralla 27	Bernesga Mb.	88.55	49.72	39.33	177.60	89.05
Aralla 28	Bernesga Mb.	76.49	48.61	37.07	162.17	85.68
Aralla 29	Bernesga Mb.	91.68	48.12	37.44	177.24	85.56
Aralla 30	Bernesga Mb.	92.88	49.38	37.98	180.23	87.35
Aralla 31	Bernesga Mb.	96.05	42.81	39.35	178.20	82.16
Aralla 32	Bernesga Mb.	101.11	46.10	40.06	187.27	86.16
Aralla 33	Bernesga Mb.	83.38	38.70	41.06	163.14	79.76
Aralla 34	Bernesga Mb.	85.63	48.65	41.62	175.90	90.27
Aralla 35	Bernesga Mb.	80.15	39.88	42.31	162.33	82.19
Aralla 36	Bernesga Mb.	78.36	45.17	38.26	161.79	83.43
Aralla 37	Bernesga Mb.	93.10	51.44	38.69	183.23	90.12
Aralla 38	Bernesga Mb.	75.53	< D.L.	26.23	101.76	26.23
Aralla 39	Bernesga Mb.	84.56	40.17	38.88	163.62	79.05
Aralla 40	Bernesga Mb.	94.22	46.22	41.18	181.62	87.40
Aralla 41	Bernesga Mb.	75.16	19.85	40.06	135.07	59.91
Aralla 42	Bernesga Mb.	78.63	29.35	38.15	146.14	67.51
Aralla 43	Bernesga Mb.	78.34	< D.L.	30.11	108.45	30.11
Aralla 44	Bernesga Mb.	63.64	36.29	40.27	140.20	76.55
Aralla 45	Bernesga Mb.	< D.L.	< D.L.	35.53	35.53	35.53
Aralla 46	Bernesga Mb.	63.69	< D.L.	36.70	100.39	36.70
Aralla 47	Bernesga Mb.	101.78	48.90	39.38	190.06	88.28
Aralla 48	Bernesga Mb.	83.29	38.99	39.95	162.23	78.94
Aralla 49	Bernesga Mb.	< D.L.	< D.L.	26.95	26.95	26.95
Aralla 50	Bernesga Mb.	84.23	44.02	38.53	166.78	82.55

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
Aralla 26	Bernesga Mb.	< D.L.	< D.L.	40.78	40.78	40.78
Aralla 27	Bernesga Mb.	105.89	78.29	59.15	243.33	137.44
Aralla 28	Bernesga Mb.	91.47	76.55	55.74	223.76	132.29
Aralla 29	Bernesga Mb.	109.63	75.77	56.31	241.71	132.08
Aralla 30	Bernesga Mb.	111.07	77.76	57.11	245.93	134.87
Aralla 31	Bernesga Mb.	114.85	67.41	59.17	241.44	126.58
Aralla 32	Bernesga Mb.	120.91	72.60	60.24	253.75	132.84
Aralla 33	Bernesga Mb.	99.71	60.95	61.74	222.40	122.69
Aralla 34	Bernesga Mb.	102.40	76.61	62.58	241.59	139.19
Aralla 35	Bernesga Mb.	95.84	62.80	63.62	222.26	126.42
Aralla 36	Bernesga Mb.	93.71	71.13	57.54	222.38	128.67
Aralla 37	Bernesga Mb.	111.33	81.00	58.18	250.51	139.18
Aralla 38	Bernesga Mb.	90.32	< D.L.	39.44	129.76	39.44
Aralla 39	Bernesga Mb.	101.12	63.27	58.47	222.85	121.73
Aralla 40	Bernesga Mb.	112.67	72.79	61.93	247.38	134.71
Aralla 41	Bernesga Mb.	89.88	31.27	60.23	181.38	91.50
Aralla 42	Bernesga Mb.	94.03	46.23	57.38	197.63	103.60
Aralla 43	Bernesga Mb.	93.68	< D.L.	45.28	138.96	45.28
Aralla 44	Bernesga Mb.	76.11	57.15	60.55	193.80	117.70
Aralla 45	Bernesga Mb.	< D.L.	< D.L.	53.43	53.43	53.43
Aralla 46	Bernesga Mb.	76.16	< D.L.	55.18	131.34	55.18
Aralla 47	Bernesga Mb.	121.71	77.01	59.22	257.94	136.23
Aralla 48	Bernesga Mb.	99.60	61.40	60.08	221.08	121.48
Aralla 49	Bernesga Mb.	< D.L.	< D.L.	40.53	40.53	40.53
Aralla 50	Bernesga Mb.	100.72	69.32	57.95	227.99	127.27

Sample	Formation	U	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al2O3*5	10Al2O3
Aralla 26	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	31.99	37.87	142.26	284.52
Aralla 27	Bernesga Mb.	13.24	132.37	264.73	6.71	4.55	6.10	36.17	4.58	155.85	311.70
Aralla 28	Bernesga Mb.	11.43	114.33	228.67	5.05	3.97	5.32	35.10	4.60	151.85	303.71
Aralla 29	Bernesga Mb.	13.70	137.03	274.07	7.39	4.69	6.28	32.71	4.40	139.69	279.38
Aralla 30	Bernesga Mb.	13.88	138.83	277.67	7.40	4.74	6.35	32.55	4.57	138.58	277.16
Aralla 31	Bernesga Mb.	14.36	143.57	287.13	8.74	4.87	6.53	35.15	5.19	150.73	301.46
Aralla 32	Bernesga Mb.	15.11	151.13	302.27	9.06	5.08	6.80	32.18	4.97	135.43	270.87
Aralla 33	Bernesga Mb.	12.46	124.63	249.27	7.38	4.31	5.78	33.51	5.87	141.52	283.04
Aralla 34	Bernesga Mb.	12.80	128.00	256.00	6.42	4.42	5.92	35.48	4.95	151.04	302.07
Aralla 35	Bernesga Mb.	11.98	119.80	239.60	6.75	4.16	5.57	36.59	5.53	156.16	312.33
Aralla 36	Bernesga Mb.	11.71	117.13	234.27	5.79	4.07	5.45	36.00	5.31	155.62	311.23
Aralla 37	Bernesga Mb.	13.92	139.17	278.33	7.17	4.75	6.36	36.23	4.68	156.52	313.03
Aralla 38	Bernesga Mb.	11.29	112.90	225.80	11.29	3.92	5.25	32.43	29.61	144.98	289.96
Aralla 39	Bernesga Mb.	12.64	126.40	252.80	7.37	4.37	5.85	35.88	5.30	154.67	309.34
Aralla 40	Bernesga Mb.	14.08	140.83	281.67	8.02	4.80	6.43	34.15	5.08	144.64	289.29
Aralla 41	Bernesga Mb.	11.24	112.35	224.70	8.63	3.90	5.23	35.66	6.99	152.83	305.67
Aralla 42	Bernesga Mb.	11.75	117.53	235.07	7.90	4.08	5.47	35.24	5.67	151.91	303.82
Aralla 43	Bernesga Mb.	11.71	117.10	234.20	11.71	4.07	5.45	35.10	24.41	156.02	312.03
Aralla 44	Bernesga Mb.	9.51	95.13	190.27	4.75	3.24	4.34	36.36	5.37	156.21	312.41
Aralla 45	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	37.75	11.08	166.04	332.09
Aralla 46	Bernesga Mb.	9.52	95.20	190.40	9.52	3.24	4.35	36.38	10.09	158.48	316.95
Aralla 47	Bernesga Mb.	15.21	152.13	304.27	8.80	5.10	6.84	36.16	4.53	155.76	311.52
Aralla 48	Bernesga Mb.	12.45	124.50	249.00	7.33	4.31	5.77	33.35	4.36	141.35	282.71
Aralla 49	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	35.00	10.70	157.44	314.87
Aralla 50	Bernesga Mb.	12.59	125.90	251.80	6.81	4.35	5.83	32.33	4.14	137.14	274.29

Sample	Formation	15Al2O3	Al2O3/10	K2O*5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	200TiO2	300TiO2	K2O/Al2O3
Aralla 26	Bernesga Mb.	426.77	2.85	12.74	0.56	< D.L.	227205.58	26.49	34.07	159.71	239.56	0.09
Aralla 27	Bernesga Mb.	467.56	3.12	18.48	< D.L.	9.14	-15628.20	2.56	3.30	243.70	365.55	0.12
Aralla 28	Bernesga Mb.	455.56	3.04	17.42	< D.L.	9.43	-14569.25	2.56	3.30	232.19	348.29	0.11
Aralla 29	Bernesga Mb.	419.08	2.79	17.60	< D.L.	9.27	-12651.98	2.43	3.13	234.13	351.19	0.13
Aralla 30	Bernesga Mb.	415.74	2.77	17.85	< D.L.	9.42	-11305.92	2.54	3.26	229.39	344.08	0.13
Aralla 31	Bernesga Mb.	452.19	3.01	18.49	< D.L.	10.42	-10847.23	2.90	3.74	239.17	358.76	0.12
Aralla 32	Bernesga Mb.	406.30	2.71	18.83	< D.L.	9.51	-7730.40	2.81	3.62	242.56	363.84	0.14
Aralla 33	Bernesga Mb.	424.57	2.83	19.30	< D.L.	9.53	-3066.84	3.44	4.42	232.55	348.82	0.14
Aralla 34	Bernesga Mb.	453.11	3.02	19.56	< D.L.	9.89	-12231.11	2.77	3.57	239.07	358.60	0.13
Aralla 35	Bernesga Mb.	468.49	3.12	19.88	< D.L.	10.35	-9909.04	3.14	4.04	239.11	358.66	0.13
Aralla 36	Bernesga Mb.	466.85	3.11	17.98	< D.L.	10.02	-11044.86	3.01	3.88	242.84	364.26	0.12
Aralla 37	Bernesga Mb.	469.55	3.13	18.18	< D.L.	10.47	-15991.70	2.54	3.27	238.43	357.64	0.12
Aralla 38	Bernesga Mb.	434.94	2.90	12.33	0.50	< D.L.	168758.07	20.71	26.65	168.55	252.82	0.09
Aralla 39	Bernesga Mb.	464.00	3.09	18.27	< D.L.	9.98	-10839.59	3.01	3.87	252.67	379.00	0.12
Aralla 40	Bernesga Mb.	433.93	2.89	19.35	< D.L.	10.17	-9825.16	2.85	3.66	242.52	363.78	0.13
Aralla 41	Bernesga Mb.	458.50	3.06	18.82	< D.L.	< D.L.	8468.05	4.89	6.29	234.77	352.15	0.12
Aralla 42	Bernesga Mb.	455.73	3.04	17.93	< D.L.	< D.L.	-518.78	3.97	5.10	230.49	345.73	0.12
Aralla 43	Bernesga Mb.	468.05	3.12	14.15	0.49	< D.L.	129419.01	17.07	21.96	191.81	287.71	0.09
Aralla 44	Bernesga Mb.	468.62	3.12	18.92	< D.L.	9.57	-10446.05	3.09	3.97	249.28	373.93	0.12
Aralla 45	Bernesga Mb.	498.13	3.32	16.70	0.39	10.12	26474.96	7.04	9.06	229.67	344.51	0.10
Aralla 46	Bernesga Mb.	475.43	3.17	17.24	< D.L.	< D.L.	28614.10	7.06	9.08	228.00	341.99	0.11
Aralla 47	Bernesga Mb.	467.27	3.12	18.51	< D.L.	9.71	-16318.36	2.49	3.20	244.43	366.65	0.12
Aralla 48	Bernesga Mb.	424.06	2.83	18.77	< D.L.	< D.L.	-6878.83	3.05	3.93	247.72	371.58	0.13
Aralla 49	Bernesga Mb.	472.31	3.15	12.67	< D.L.	< D.L.	33150.74	7.48	9.62	200.45	300.67	0.08
Aralla 50	Bernesga Mb.	411.43	2.74	18.11	< D.L.	< D.L.	-7337.83	2.90	3.72	242.00	362.99	0.13

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
Aralla 26	Bernesga Mb.	-1.05	< D.L.	1.58	0.11	0.39	2.58	-0.41	22.44
Aralla 27	Bernesga Mb.	-0.93	0.03	0.56	0.25	0.35	2.83	-0.45	23.89
Aralla 28	Bernesga Mb.	-0.94	0.03	0.56	0.27	0.36	2.80	-0.45	24.37
Aralla 29	Bernesga Mb.	-0.90	0.03	0.54	0.29	0.36	2.80	-0.45	22.25
Aralla 30	Bernesga Mb.	-0.89	0.03	0.56	0.30	0.36	2.81	-0.45	21.83
Aralla 31	Bernesga Mb.	-0.91	0.03	0.62	0.28	0.35	2.83	-0.45	23.09
Aralla 32	Bernesga Mb.	-0.86	0.04	0.60	0.31	0.35	2.84	-0.45	20.46
Aralla 33	Bernesga Mb.	-0.87	0.03	0.69	0.28	0.35	2.86	-0.46	20.97
Aralla 34	Bernesga Mb.	-0.89	0.03	0.60	0.26	0.35	2.87	-0.46	22.14
Aralla 35	Bernesga Mb.	-0.90	0.03	0.65	0.24	0.35	2.88	-0.46	22.59
Aralla 36	Bernesga Mb.	-0.94	0.03	0.63	0.25	0.36	2.82	-0.45	24.37
Aralla 37	Bernesga Mb.	-0.94	0.03	0.56	0.25	0.35	2.82	-0.45	24.30
Aralla 38	Bernesga Mb.	-1.07	< D.L.	1.47	0.11	0.39	2.56	-0.41	23.87
Aralla 39	Bernesga Mb.	-0.93	0.03	0.63	0.25	0.35	2.83	-0.45	23.92
Aralla 40	Bernesga Mb.	-0.87	0.04	0.61	0.26	0.35	2.86	-0.46	21.38
Aralla 41	Bernesga Mb.	-0.91	< D.L.	0.84	0.23	0.35	2.84	-0.45	23.09
Aralla 42	Bernesga Mb.	-0.93	< D.L.	0.75	0.25	0.36	2.81	-0.45	23.84
Aralla 43	Bernesga Mb.	-1.04	< D.L.	1.39	0.14	0.38	2.66	-0.42	23.86
Aralla 44	Bernesga Mb.	-0.92	0.03	0.65	0.24	0.35	2.85	-0.45	23.50
Aralla 45	Bernesga Mb.	-1.00	0.03	1.00	0.18	0.36	2.77	-0.44	23.71
Aralla 46	Bernesga Mb.	-0.96	< D.L.	1.00	0.19	0.36	2.79	-0.45	25.64
Aralla 47	Bernesga Mb.	-0.93	0.03	0.55	0.25	0.35	2.83	-0.45	23.85
Aralla 48	Bernesga Mb.	-0.88	< D.L.	0.64	0.29	0.35	2.84	-0.45	21.40
Aralla 49	Bernesga Mb.	-1.09	< D.L.	1.03	0.23	0.39	2.58	-0.41	32.04
Aralla 50	Bernesga Mb.	-0.88	< D.L.	0.62	0.30	0.35	2.82	-0.45	21.36

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
Aralla 26	Bernesga Mb.	1.27	3.82	37.87	1.28	0.11	0.78	1.33	29.51	0.00
Aralla 27	Bernesga Mb.	1.30	5.00	4.58	1.78	0.25	0.56	0.12	43.92	0.01
Aralla 28	Bernesga Mb.	1.25	4.73	4.60	1.85	0.27	0.54	0.12	45.05	0.01
Aralla 29	Bernesga Mb.	1.26	4.78	4.40	1.96	0.29	0.51	0.12	45.25	0.01
Aralla 30	Bernesga Mb.	1.27	4.84	4.57	1.98	0.30	0.50	0.13	44.51	0.01
Aralla 31	Bernesga Mb.	1.31	5.00	5.19	1.90	0.28	0.53	0.14	41.00	0.00
Aralla 32	Bernesga Mb.	1.32	5.09	4.97	2.04	0.31	0.49	0.15	41.32	0.01
Aralla 33	Bernesga Mb.	1.35	5.21	5.87	1.92	0.28	0.52	0.17	39.93	0.00
Aralla 34	Bernesga Mb.	1.36	5.28	4.95	1.83	0.26	0.55	0.13	41.60	0.01
Aralla 35	Bernesga Mb.	1.38	5.36	5.53	1.75	0.24	0.57	0.14	41.14	0.01
Aralla 36	Bernesga Mb.	1.28	4.87	5.31	1.77	0.25	0.57	0.14	42.67	0.01
Aralla 37	Bernesga Mb.	1.29	4.92	4.68	1.78	0.25	0.56	0.12	44.04	0.01
Aralla 38	Bernesga Mb.	1.21	3.68	29.61	1.30	0.11	0.77	1.02	32.99	0.00
Aralla 39	Bernesga Mb.	1.29	4.95	5.30	1.77	0.25	0.56	0.14	43.11	0.01
Aralla 40	Bernesga Mb.	1.35	5.22	5.08	1.84	0.26	0.54	0.14	44.14	0.01
Aralla 41	Bernesga Mb.	1.32	5.09	6.99	1.68	0.23	0.59	0.23	39.23	0.00
Aralla 42	Bernesga Mb.	1.27	4.86	5.67	1.78	0.25	0.56	0.19	39.73	0.00
Aralla 43	Bernesga Mb.	1.31	4.14	24.41	1.39	0.14	0.72	0.78	32.67	0.00
Aralla 44	Bernesga Mb.	1.33	5.11	5.37	1.74	0.24	0.58	0.14	41.67	0.01
Aralla 45	Bernesga Mb.	1.40	4.74	11.08	1.52	0.18	0.66	0.30	38.00	0.00
Aralla 46	Bernesga Mb.	1.24	4.69	10.09	1.56	0.19	0.64	0.32	38.37	0.00
Aralla 47	Bernesga Mb.	1.31	5.01	4.53	1.79	0.25	0.56	0.11	45.49	0.01
Aralla 48	Bernesga Mb.	1.32	5.08	4.36	1.93	0.29	0.52	0.15	40.36	0.00
Aralla 49	Bernesga Mb.	0.98	3.52	10.70	1.70	0.23	0.59	0.34	34.14	0.00
Aralla 50	Bernesga Mb.	1.28	4.91	4.14	1.98	0.30	0.50	0.15	40.54	0.00

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Ti Cal (ppm)	Zr/Sc	Cr/Th	Th/Sc
Aralla 26	Bernesga Mb.	35.63	0.07	412.93	0.52	340.84	1.07	1.39	2.93	< D.L.	< D.L.	< D.L.	4786.50	< D.L.	< D.L.	< D.L.
Aralla 27	Bernesga Mb.	25.58	0.06	344.44	< D.L.	198.04	0.26	0.89	1.29	< D.L.	< D.L.	6.52	7303.84	< D.L.	7.39	< D.L.
Aralla 28	Bernesga Mb.	26.16	0.05	320.23	< D.L.	199.44	0.27	0.89	1.45	< D.L.	< D.L.	6.38	6958.89	< D.L.	7.27	< D.L.
Aralla 29	Bernesga Mb.	23.87	0.05	320.13	< D.L.	171.71	0.20	0.79	1.44	< D.L.	12.56	6.31	7016.84	8.51	6.62	1.04
Aralla 30	Bernesga Mb.	24.17	0.06	337.81	< D.L.	193.65	0.23	0.86	1.58	< D.L.	< D.L.	6.48	6874.80	< D.L.	7.00	< D.L.
Aralla 31	Bernesga Mb.	25.21	0.06	340.64	< D.L.	179.46	0.19	0.87	1.65	66.43	14.18	5.62	7168.10	8.74	7.82	0.96
Aralla 32	Bernesga Mb.	22.33	0.06	331.33	< D.L.	181.52	0.22	0.82	1.57	< D.L.	< D.L.	6.05	7269.59	< D.L.	7.00	< D.L.
Aralla 33	Bernesga Mb.	24.34	0.06	338.97	< D.L.	168.07	0.21	0.76	1.60	< D.L.	13.42	5.08	6969.54	8.10	7.67	0.83
Aralla 34	Bernesga Mb.	25.27	0.06	340.61	< D.L.	174.42	0.17	0.81	1.60	< D.L.	12.28	6.38	7164.94	6.66	6.86	0.90
Aralla 35	Bernesga Mb.	26.12	0.06	338.07	< D.L.	187.24	0.25	0.78	1.45	< D.L.	< D.L.	5.23	7166.20	< D.L.	8.12	< D.L.
Aralla 36	Bernesga Mb.	25.63	0.06	359.96	< D.L.	189.31	0.19	0.90	1.75	< D.L.	12.08	5.93	7278.02	6.25	7.75	0.80
Aralla 37	Bernesga Mb.	26.26	0.05	326.23	< D.L.	181.08	0.19	0.83	1.63	< D.L.	< D.L.	6.75	7145.72	< D.L.	6.54	< D.L.
Aralla 38	Bernesga Mb.	34.41	0.07	408.56	1.44	307.88	0.63	1.48	3.63	< D.L.	< D.L.	< D.L.	5051.46	< D.L.	< D.L.	< D.L.
Aralla 39	Bernesga Mb.	24.49	0.06	367.44	< D.L.	194.89	0.23	0.86	1.63	< D.L.	< D.L.	5.27	7572.58	< D.L.	8.55	< D.L.
Aralla 40	Bernesga Mb.	23.86	0.06	342.00	< D.L.	217.43	0.36	0.78	1.35	< D.L.	13.72	6.07	7268.46	7.53	7.32	1.08
Aralla 41	Bernesga Mb.	26.04	0.06	355.76	< D.L.	213.40	0.37	0.77	1.82	< D.L.	< D.L.	2.61	7036.02	< D.L.	14.49	< D.L.
Aralla 42	Bernesga Mb.	26.36	0.06	347.34	1.23	181.16	0.26	0.85	1.60	57.13	< D.L.	3.85	6907.86	< D.L.	10.44	< D.L.
Aralla 43	Bernesga Mb.	32.54	0.07	395.80	0.92	246.48	0.75	1.08	2.10	< D.L.	< D.L.	< D.L.	5748.54	< D.L.	< D.L.	< D.L.
Aralla 44	Bernesga Mb.	25.06	0.06	354.73	< D.L.	183.46	0.25	0.83	1.35	< D.L.	12.23	4.76	7471.15	7.42	9.19	0.82
Aralla 45	Bernesga Mb.	28.92	0.07	396.92	0.95	205.94	0.49	0.88	1.52	< D.L.	< D.L.	< D.L.	6883.41	< D.L.	< D.L.	< D.L.
Aralla 46	Bernesga Mb.	27.80	0.06	369.79	0.61	221.45	0.44	0.96	1.62	< D.L.	< D.L.	< D.L.	6833.14	< D.L.	< D.L.	< D.L.
Aralla 47	Bernesga Mb.	25.49	0.05	317.29	< D.L.	189.93	0.24	0.82	1.32	< D.L.	< D.L.	6.42	7325.81	< D.L.	7.14	< D.L.
Aralla 48	Bernesga Mb.	22.82	0.06	343.21	< D.L.	173.03	0.21	0.83	1.48	< D.L.	< D.L.	5.12	7424.28	< D.L.	8.17	< D.L.
Aralla 49	Bernesga Mb.	31.42	0.06	384.78	0.68	213.16	0.56	1.25	2.17	< D.L.	< D.L.	< D.L.	6007.50	< D.L.	< D.L.	< D.L.
Aralla 50	Bernesga Mb.	22.67	0.06	340.85	< D.L.	175.85	0.19	0.90	1.52	< D.L.	10.87	5.78	7252.73	7.63	7.65	0.84

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
Aralla 26	Bernesga Mb.	1.18	0.85	0.02	7.64	0.85	11.59	< D.L.	0.47	2.11
Aralla 27	Bernesga Mb.	0.88	1.14	0.02	6.74	0.99	1.31	< D.L.	0.69	1.44
Aralla 28	Bernesga Mb.	0.97	1.03	0.02	7.02	1.10	0.98	< D.L.	0.61	1.63
Aralla 29	Bernesga Mb.	0.98	1.03	0.02	7.08	1.24	0.85	< D.L.	0.55	1.83
Aralla 30	Bernesga Mb.	0.97	1.03	0.02	7.56	1.13	0.93	< D.L.	0.54	1.85
Aralla 31	Bernesga Mb.	1.02	0.98	0.02	7.32	1.17	1.28	< D.L.	0.53	1.90
Aralla 32	Bernesga Mb.	1.07	0.93	0.02	7.59	1.31	1.58	< D.L.	0.52	1.92
Aralla 33	Bernesga Mb.	0.97	1.03	0.02	7.25	1.28	2.09	< D.L.	0.47	2.11
Aralla 34	Bernesga Mb.	0.87	1.15	0.02	6.72	1.08	1.19	< D.L.	0.50	1.98
Aralla 35	Bernesga Mb.	0.80	1.24	0.02	6.21	1.03	1.75	< D.L.	0.54	1.86
Aralla 36	Bernesga Mb.	0.91	1.10	0.02	6.87	1.01	1.20	< D.L.	0.51	1.95
Aralla 37	Bernesga Mb.	0.83	1.20	0.02	6.10	1.01	1.02	< D.L.	0.51	1.97
Aralla 38	Bernesga Mb.	1.10	0.91	0.02	7.22	0.74	10.35	< D.L.	0.41	2.45
Aralla 39	Bernesga Mb.	0.83	1.20	0.02	6.37	0.97	10.44	< D.L.	0.53	1.89
Aralla 40	Bernesga Mb.	0.74	1.35	0.02	5.97	0.95	3.53	< D.L.	0.58	1.74
Aralla 41	Bernesga Mb.	0.85	1.18	0.02	6.33	1.11	3.61	< D.L.	0.42	2.38
Aralla 42	Bernesga Mb.	1.06	0.94	0.02	7.58	1.25	2.48	< D.L.	0.53	1.89
Aralla 43	Bernesga Mb.	1.10	0.91	0.02	6.99	1.01	9.12	< D.L.	0.52	1.93
Aralla 44	Bernesga Mb.	0.82	1.22	0.02	6.12	0.98	1.72	< D.L.	0.62	1.62
Aralla 45	Bernesga Mb.	0.90	1.12	0.02	6.55	1.02	4.54	< D.L.	0.58	1.73
Aralla 46	Bernesga Mb.	0.86	1.16	0.02	6.16	0.90	4.49	< D.L.	0.59	1.69
Aralla 47	Bernesga Mb.	0.80	1.26	0.02	5.80	0.98	0.69	< D.L.	0.62	1.61
Aralla 48	Bernesga Mb.	1.03	0.97	0.02	7.25	1.25	1.70	< D.L.	0.56	1.79
Aralla 49	Bernesga Mb.	1.18	0.85	0.02	6.52	0.94	5.75	< D.L.	0.58	1.74
Aralla 50	Bernesga Mb.	1.07	0.93	0.02	7.38	1.18	1.56	< D.L.	0.59	1.69

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
Aralla 26	Bernesga Mb.	3.55	< D.L.	14.64	6.15	< D.L.	3.23	15.69	6.95
Aralla 27	Bernesga Mb.	0.58	0.80	12.65	< D.L.	< D.L.	0.82	3.24	8.77
Aralla 28	Bernesga Mb.	0.65	0.71	14.13	< D.L.	1.98	0.76	3.75	8.66
Aralla 29	Bernesga Mb.	< D.L.	0.93	15.50	< D.L.	2.26	< D.L.	3.13	8.48
Aralla 30	Bernesga Mb.	0.46	0.95	17.14	< D.L.	2.46	0.84	3.93	9.27
Aralla 31	Bernesga Mb.	0.88	0.90	15.65	< D.L.	< D.L.	2.29	2.99	8.26
Aralla 32	Bernesga Mb.	0.96	1.05	17.05	< D.L.	2.86	1.52	3.80	8.87
Aralla 33	Bernesga Mb.	1.25	0.83	16.49	< D.L.	2.74	2.29	3.42	7.80
Aralla 34	Bernesga Mb.	0.71	0.80	16.28	< D.L.	2.36	1.75	2.70	8.21
Aralla 35	Bernesga Mb.	1.15	0.72	14.35	< D.L.	1.90	1.97	3.61	7.72
Aralla 36	Bernesga Mb.	0.83	0.71	16.31	< D.L.	< D.L.	1.10	3.13	8.37
Aralla 37	Bernesga Mb.	0.34	0.84	15.75	< D.L.	3.01	1.05	2.93	8.00
Aralla 38	Bernesga Mb.	3.86	0.74	19.23	4.84	< D.L.	6.95	12.20	7.86
Aralla 39	Bernesga Mb.	0.74	0.77	15.66	< D.L.	2.32	2.55	3.64	8.26
Aralla 40	Bernesga Mb.	0.66	0.92	15.10	< D.L.	3.09	1.84	5.50	8.70
Aralla 41	Bernesga Mb.	1.78	0.69	16.64	< D.L.	< D.L.	2.10	6.19	7.00
Aralla 42	Bernesga Mb.	1.62	0.73	14.21	2.20	< D.L.	2.71	3.76	7.50
Aralla 43	Bernesga Mb.	3.73	0.71	11.73	3.68	< D.L.	3.40	8.85	6.07
Aralla 44	Bernesga Mb.	0.89	0.58	12.84	< D.L.	< D.L.	1.60	3.16	7.94
Aralla 45	Bernesga Mb.	2.11	< D.L.	10.95	2.24	< D.L.	2.12	5.39	6.33
Aralla 46	Bernesga Mb.	2.23	0.57	12.77	2.53	< D.L.	1.55	5.65	7.55
Aralla 47	Bernesga Mb.	< D.L.	0.92	13.46	< D.L.	< D.L.	0.75	3.18	8.34
Aralla 48	Bernesga Mb.	1.20	0.83	14.99	< D.L.	< D.L.	1.61	3.18	8.39
Aralla 49	Bernesga Mb.	2.33	< D.L.	11.24	2.53	< D.L.	1.72	6.31	6.48
Aralla 50	Bernesga Mb.	0.93	0.87	15.42	< D.L.	< D.L.	2.70	2.98	9.14

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
Aralla 26	Bernesga Mb.	< D.L.	12.50	106.93	57.90	5.88	0.48	73.07	< D.L.
Aralla 27	Bernesga Mb.	< D.L.	13.18	26.41	12.87	8.66	0.80	18.05	< D.L.
Aralla 28	Bernesga Mb.	< D.L.	13.42	26.87	9.56	9.49	0.79	18.36	< D.L.
Aralla 29	Bernesga Mb.	< D.L.	14.49	29.21	9.15	10.50	0.83	19.96	< D.L.
Aralla 30	Bernesga Mb.	< D.L.	14.23	30.08	10.03	10.49	0.81	20.56	< D.L.
Aralla 31	Bernesga Mb.	0.24	13.16	27.33	12.20	9.66	0.84	18.68	0.12
Aralla 32	Bernesga Mb.	< D.L.	14.34	30.48	17.11	11.62	0.82	20.83	< D.L.
Aralla 33	Bernesga Mb.	< D.L.	13.45	29.01	21.52	9.95	0.83	19.83	< D.L.
Aralla 34	Bernesga Mb.	< D.L.	12.72	27.27	12.10	8.84	0.86	18.64	< D.L.
Aralla 35	Bernesga Mb.	< D.L.	12.14	26.52	17.36	7.96	0.80	18.12	< D.L.
Aralla 36	Bernesga Mb.	< D.L.	12.25	26.35	11.15	8.44	0.84	18.01	< D.L.
Aralla 37	Bernesga Mb.	< D.L.	12.24	26.08	9.88	8.07	0.84	17.82	< D.L.
Aralla 38	Bernesga Mb.	< D.L.	11.79	31.51	54.83	5.81	0.61	21.53	< D.L.
Aralla 39	Bernesga Mb.	< D.L.	12.32	27.11	100.50	8.02	0.81	18.53	< D.L.
Aralla 40	Bernesga Mb.	< D.L.	12.94	28.51	39.35	8.28	0.73	19.48	< D.L.
Aralla 41	Bernesga Mb.	< D.L.	12.06	27.91	32.92	7.74	0.73	19.07	< D.L.
Aralla 42	Bernesga Mb.	0.25	11.92	27.31	22.01	9.38	0.79	18.66	0.13
Aralla 43	Bernesga Mb.	< D.L.	10.95	30.01	51.03	6.14	0.57	20.51	< D.L.
Aralla 44	Bernesga Mb.	< D.L.	11.85	26.56	16.36	7.79	0.80	18.15	< D.L.
Aralla 45	Bernesga Mb.	< D.L.	10.71	26.04	32.75	6.47	0.67	17.79	< D.L.
Aralla 46	Bernesga Mb.	< D.L.	11.22	26.49	35.44	6.78	0.69	18.10	< D.L.
Aralla 47	Bernesga Mb.	< D.L.	11.86	26.00	7.08	8.13	0.81	17.77	< D.L.
Aralla 48	Bernesga Mb.	< D.L.	12.93	29.32	17.24	10.48	0.83	20.04	< D.L.
Aralla 49	Bernesga Mb.	< D.L.	10.79	27.94	29.83	6.11	0.64	19.09	< D.L.
Aralla 50	Bernesga Mb.	< D.L.	13.20	29.98	15.81	10.82	0.84	20.49	< D.L.

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
Aralla 26	Bernesga Mb.	< D.L.	< D.L.	0.87	< D.L.	< D.L.	14.86	1.17	5.35	0.01	0.05	0.51
Aralla 27	Bernesga Mb.	1.48	0.68	1.40	10.79	< D.L.	0.99	0.00	0.95	0.01	< D.L.	< D.L.
Aralla 28	Bernesga Mb.	1.67	0.60	1.43	13.34	0.36	1.05	0.02	1.04	0.01	0.04	0.37
Aralla 29	Bernesga Mb.	1.38	0.72	1.47	11.33	0.41	0.99	-0.01	< D.L.	0.01	< D.L.	< D.L.
Aralla 30	Bernesga Mb.	1.40	0.71	1.50	11.08	0.38	1.02	0.01	0.67	0.01	< D.L.	< D.L.
Aralla 31	Bernesga Mb.	1.17	0.85	1.46	10.73	< D.L.	1.12	0.05	1.40	0.01	< D.L.	< D.L.
Aralla 32	Bernesga Mb.	1.20	0.83	1.57	11.02	0.37	1.07	0.03	1.37	0.01	< D.L.	< D.L.
Aralla 33	Bernesga Mb.	1.22	0.82	1.50	11.96	0.30	1.27	0.11	1.88	0.01	< D.L.	< D.L.
Aralla 34	Bernesga Mb.	1.50	0.67	1.49	11.04	0.34	1.01	0.01	1.14	0.01	< D.L.	< D.L.
Aralla 35	Bernesga Mb.	1.31	0.76	1.47	10.98	0.38	1.13	0.05	1.90	0.01	< D.L.	< D.L.
Aralla 36	Bernesga Mb.	1.52	0.66	1.45	11.87	< D.L.	1.20	0.08	1.37	0.01	< D.L.	< D.L.
Aralla 37	Bernesga Mb.	1.46	0.69	1.45	9.61	0.28	1.00	0.00	0.56	0.01	< D.L.	< D.L.
Aralla 38	Bernesga Mb.	< D.L.	< D.L.	0.94	7.90	< D.L.	12.01	1.08	5.92	0.01	0.11	1.08
Aralla 39	Bernesga Mb.	1.25	0.80	1.43	10.38	0.33	1.18	0.07	1.21	0.01	< D.L.	< D.L.
Aralla 40	Bernesga Mb.	1.29	0.77	1.50	9.00	0.30	1.05	0.02	1.01	0.01	0.34	3.40
Aralla 41	Bernesga Mb.	0.70	1.44	1.40	11.15	< D.L.	1.86	0.27	2.88	0.01	< D.L.	< D.L.
Aralla 42	Bernesga Mb.	0.98	1.02	1.53	12.83	< D.L.	1.58	0.20	2.61	0.01	< D.L.	< D.L.
Aralla 43	Bernesga Mb.	< D.L.	< D.L.	1.07	8.67	< D.L.	8.62	0.94	6.17	0.01	0.08	0.84
Aralla 44	Bernesga Mb.	1.50	0.67	1.46	13.54	< D.L.	1.17	0.07	1.48	0.01	< D.L.	< D.L.
Aralla 45	Bernesga Mb.	< D.L.	< D.L.	1.28	< D.L.	< D.L.	3.01	0.48	3.71	0.01	0.03	0.30
Aralla 46	Bernesga Mb.	< D.L.	< D.L.	1.31	11.95	< D.L.	2.92	0.47	3.74	0.01	0.03	0.29
Aralla 47	Bernesga Mb.	1.27	0.79	1.55	8.81	< D.L.	0.96	-0.02	< D.L.	0.01	< D.L.	< D.L.
Aralla 48	Bernesga Mb.	1.23	0.81	1.59	12.59	< D.L.	1.16	0.07	1.79	0.01	< D.L.	< D.L.
Aralla 49	Bernesga Mb.	< D.L.	< D.L.	1.05	< D.L.	< D.L.	4.22	0.63	3.89	0.01	0.03	0.29
Aralla 50	Bernesga Mb.	1.38	0.73	1.59	12.48	< D.L.	1.14	0.06	1.35	0.01	< D.L.	< D.L.

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	V (wt%)	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
Aralla 26	Bernesga Mb.	1016.62	0.08	0.10	< D.L.	0.02	4.89	8.86	320740.74	2848.07	48.16
Aralla 27	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.71	0.02	7.45	14.29	423710.03	668.50	-28.18
Aralla 28	Bernesga Mb.	731.67	0.05	0.07	5.05	0.02	7.10	15.26	423201.79	724.60	-27.26
Aralla 29	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.39	0.02	7.14	15.53	403237.89	462.93	-24.85
Aralla 30	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.40	0.03	7.01	15.39	403485.96	699.20	-24.27
Aralla 31	Bernesga Mb.	< D.L.	< D.L.	< D.L.	8.74	0.02	7.30	15.41	427300.22	841.90	-25.95
Aralla 32	Bernesga Mb.	< D.L.	< D.L.	< D.L.	9.06	0.02	7.40	16.65	402261.25	762.00	-22.70
Aralla 33	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.38	0.02	7.09	14.91	403285.46	855.10	-22.19
Aralla 34	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.42	0.03	7.30	14.13	418159.88	710.53	-26.42
Aralla 35	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.75	0.02	7.29	13.16	421237.51	923.17	-26.48
Aralla 36	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.79	0.03	7.42	13.90	422088.64	695.70	-26.75
Aralla 37	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.17	0.03	7.28	13.37	425435.69	659.20	-28.39
Aralla 38	Bernesga Mb.	2151.44	0.16	0.21	11.29	0.03	5.17	8.92	329783.37	2939.03	29.86
Aralla 39	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.37	0.03	7.71	13.13	420213.94	1013.57	-26.54
Aralla 40	Bernesga Mb.	6797.43	0.51	0.68	8.02	0.02	7.40	12.68	401539.89	1125.07	-24.72
Aralla 41	Bernesga Mb.	< D.L.	< D.L.	< D.L.	8.63	0.03	7.15	12.53	402039.87	1341.70	-20.36
Aralla 42	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.90	0.02	7.03	15.08	413115.04	1040.80	-22.97
Aralla 43	Bernesga Mb.	1679.64	0.13	0.17	11.71	0.02	5.85	10.15	367192.53	2024.17	16.17
Aralla 44	Bernesga Mb.	< D.L.	< D.L.	< D.L.	4.75	0.02	7.60	12.88	419053.96	786.50	-26.65
Aralla 45	Bernesga Mb.	596.60	0.04	0.06	< D.L.	0.02	6.99	11.36	411671.28	1319.17	-16.83
Aralla 46	Bernesga Mb.	575.23	0.04	0.06	9.52	0.02	6.96	11.38	398985.59	1207.90	-15.04
Aralla 47	Bernesga Mb.	< D.L.	< D.L.	< D.L.	8.80	0.02	7.46	13.40	424890.53	649.23	-28.38
Aralla 48	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.33	0.02	7.55	15.67	404909.72	716.00	-23.33
Aralla 49	Bernesga Mb.	586.51	0.04	0.06	< D.L.	0.02	6.12	10.18	417380.31	1339.40	-13.50
Aralla 50	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.81	0.02	7.39	15.71	399431.29	823.43	-22.84

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
Aralla 26	Bernesga Mb.	22.50	15.36	30.75	0.42	95.33	95.73
Aralla 27	Bernesga Mb.	-13.17	16.83	-4.13	0.76	95.47	95.98
Aralla 28	Bernesga Mb.	-12.74	16.40	-3.93	0.76	95.57	96.06
Aralla 29	Bernesga Mb.	-11.61	15.09	-3.51	0.77	95.11	95.70
Aralla 30	Bernesga Mb.	-11.34	14.97	-3.30	0.77	95.00	95.62
Aralla 31	Bernesga Mb.	-12.13	16.28	-3.38	0.78	95.30	95.85
Aralla 32	Bernesga Mb.	-10.61	14.63	-2.75	0.79	94.63	95.34
Aralla 33	Bernesga Mb.	-10.37	15.28	-2.16	0.83	94.77	95.45
Aralla 34	Bernesga Mb.	-12.35	16.31	-3.59	0.77	95.07	95.68
Aralla 35	Bernesga Mb.	-12.37	16.87	-3.32	0.79	95.17	95.76
Aralla 36	Bernesga Mb.	-12.50	16.81	-3.47	0.78	95.57	96.06
Aralla 37	Bernesga Mb.	-13.27	16.90	-4.19	0.76	95.55	96.05
Aralla 38	Bernesga Mb.	13.96	15.66	22.36	0.38	95.62	95.98
Aralla 39	Bernesga Mb.	-12.40	16.70	-3.43	0.78	95.47	95.99
Aralla 40	Bernesga Mb.	-11.55	15.62	-3.16	0.79	94.88	95.53
Aralla 41	Bernesga Mb.	-9.51	16.51	-0.65	0.94	95.29	95.85
Aralla 42	Bernesga Mb.	-10.73	16.41	-1.92	0.85	95.46	95.97
Aralla 43	Bernesga Mb.	7.56	16.85	16.61	0.31	95.59	95.98
Aralla 44	Bernesga Mb.	-12.45	16.87	-3.39	0.79	95.38	95.92
Aralla 45	Bernesga Mb.	-7.87	17.93	1.77	1.29	95.52	95.95
Aralla 46	Bernesga Mb.	-7.03	17.12	2.16	1.44	95.81	96.25
Aralla 47	Bernesga Mb.	-13.26	16.82	-4.23	0.76	95.46	95.98
Aralla 48	Bernesga Mb.	-10.90	15.27	-2.70	0.80	94.89	95.54
Aralla 49	Bernesga Mb.	-6.31	17.00	2.82	1.81	96.72	96.97
Aralla 50	Bernesga Mb.	-10.67	14.81	-2.72	0.80	94.88	95.53

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
Aralla 26	Bernesga Mb.	88.17	33.11	-9.92	33.13
Aralla 27	Bernesga Mb.	86.17	5.24	-0.26	5.27
Aralla 28	Bernesga Mb.	86.52	5.04	-0.70	5.07
Aralla 29	Bernesga Mb.	85.40	3.39	-0.75	3.42
Aralla 30	Bernesga Mb.	85.14	3.34	-0.75	3.37
Aralla 31	Bernesga Mb.	85.76	4.83	-0.61	4.87
Aralla 32	Bernesga Mb.	84.18	2.91	-0.57	2.94
Aralla 33	Bernesga Mb.	84.46	4.32	-0.59	4.35
Aralla 34	Bernesga Mb.	85.13	4.58	-0.17	4.61
Aralla 35	Bernesga Mb.	85.35	5.46	-0.18	5.49
Aralla 36	Bernesga Mb.	86.46	5.68	-0.68	5.72
Aralla 37	Bernesga Mb.	86.41	5.21	-0.50	5.24
Aralla 38	Bernesga Mb.	88.74	27.16	-7.93	27.18
Aralla 39	Bernesga Mb.	86.21	5.42	-0.58	5.46
Aralla 40	Bernesga Mb.	84.71	3.85	-0.37	3.89
Aralla 41	Bernesga Mb.	85.73	8.78	-0.01	8.81
Aralla 42	Bernesga Mb.	86.21	7.89	0.02	7.93
Aralla 43	Bernesga Mb.	88.29	23.94	-5.86	23.97
Aralla 44	Bernesga Mb.	85.93	5.64	-0.35	5.68
Aralla 45	Bernesga Mb.	87.51	11.82	-2.41	11.86
Aralla 46	Bernesga Mb.	87.12	12.22	-1.20	12.25
Aralla 47	Bernesga Mb.	86.15	5.05	-0.29	5.08
Aralla 48	Bernesga Mb.	84.78	5.28	0.50	5.32
Aralla 49	Bernesga Mb.	89.96	13.78	-2.85	13.81
Aralla 50	Bernesga Mb.	84.83	4.80	0.28	4.83

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
Aralla 26	Bernesga Mb.	-8.77	2.35	-101.68	0.43
Aralla 27	Bernesga Mb.	1.10	4.58	-43.35	0.89
Aralla 28	Bernesga Mb.	0.60	4.57	-42.96	0.89
Aralla 29	Bernesga Mb.	0.56	4.62	-40.73	0.89
Aralla 30	Bernesga Mb.	0.57	4.63	-41.17	0.88
Aralla 31	Bernesga Mb.	0.75	4.49	-44.54	0.88
Aralla 32	Bernesga Mb.	0.81	4.54	-42.04	0.87
Aralla 33	Bernesga Mb.	0.81	4.60	-44.26	0.85
Aralla 34	Bernesga Mb.	1.25	4.62	-43.79	0.88
Aralla 35	Bernesga Mb.	1.26	4.63	-45.25	0.87
Aralla 36	Bernesga Mb.	0.65	4.54	-44.24	0.88
Aralla 37	Bernesga Mb.	0.84	4.61	-43.28	0.89
Aralla 38	Bernesga Mb.	-6.81	3.34	-86.14	0.49
Aralla 39	Bernesga Mb.	0.77	4.51	-44.06	0.88
Aralla 40	Bernesga Mb.	1.04	4.68	-42.30	0.88
Aralla 41	Bernesga Mb.	1.37	4.41	-49.05	0.81
Aralla 42	Bernesga Mb.	1.35	4.39	-47.11	0.84
Aralla 43	Bernesga Mb.	-4.64	3.47	-79.64	0.56
Aralla 44	Bernesga Mb.	1.04	4.56	-44.51	0.87
Aralla 45	Bernesga Mb.	-1.07	4.36	-54.73	0.77
Aralla 46	Bernesga Mb.	0.09	4.24	-54.49	0.76
Aralla 47	Bernesga Mb.	1.07	4.59	-43.21	0.90
Aralla 48	Bernesga Mb.	1.88	4.40	-43.79	0.86
Aralla 49	Bernesga Mb.	-1.82	3.98	-55.91	0.75
Aralla 50	Bernesga Mb.	1.62	4.43	-42.62	0.87

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
Aralla 26	Bernesga Mb.	47.42	1.50	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 27	Bernesga Mb.	3.01	0.35	4.00	4.00	1.00	< D.L.	9.00
Aralla 28	Bernesga Mb.	3.15	0.35	4.00	4.00	1.00	< D.L.	9.00
Aralla 29	Bernesga Mb.	2.97	0.37	4.00	4.00	1.00	< D.L.	9.00
Aralla 30	Bernesga Mb.	3.16	0.38	4.00	4.00	1.00	< D.L.	9.00
Aralla 31	Bernesga Mb.	3.47	0.38	4.00	4.00	4.00	< D.L.	12.00
Aralla 32	Bernesga Mb.	3.31	0.42	4.00	4.00	1.00	< D.L.	9.00
Aralla 33	Bernesga Mb.	4.23	0.43	4.00	4.00	1.00	< D.L.	9.00
Aralla 34	Bernesga Mb.	3.32	0.38	4.00	4.00	1.00	< D.L.	9.00
Aralla 35	Bernesga Mb.	3.76	0.39	4.00	4.00	1.00	< D.L.	9.00
Aralla 36	Bernesga Mb.	3.55	0.37	4.00	4.00	1.00	< D.L.	9.00
Aralla 37	Bernesga Mb.	3.05	0.35	4.00	4.00	1.00	< D.L.	9.00
Aralla 38	Bernesga Mb.	35.14	1.18	4.00	4.00	1.00	< D.L.	9.00
Aralla 39	Bernesga Mb.	3.41	0.37	4.00	4.00	1.00	< D.L.	9.00
Aralla 40	Bernesga Mb.	3.35	0.40	4.00	4.00	1.00	< D.L.	9.00
Aralla 41	Bernesga Mb.	5.96	0.44	4.00	4.00	1.00	< D.L.	9.00
Aralla 42	Bernesga Mb.	4.92	0.39	4.00	4.00	4.00	< D.L.	12.00
Aralla 43	Bernesga Mb.	25.45	0.95	4.00	4.00	1.00	< D.L.	9.00
Aralla 44	Bernesga Mb.	3.54	0.38	4.00	4.00	1.00	< D.L.	9.00
Aralla 45	Bernesga Mb.	8.77	0.51	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 46	Bernesga Mb.	8.85	0.50	4.00	4.00	1.00	< D.L.	9.00
Aralla 47	Bernesga Mb.	2.91	0.35	4.00	4.00	1.00	< D.L.	9.00
Aralla 48	Bernesga Mb.	3.52	0.38	4.00	4.00	1.00	< D.L.	9.00
Aralla 49	Bernesga Mb.	10.67	0.49	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 50	Bernesga Mb.	3.42	0.38	4.00	4.00	1.00	< D.L.	9.00

1.3 Aralla 51 - 75

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
Aralla 51	Bernesga Mb.	80.68	44.65	42.10	167.44	86.76
Aralla 52	Bernesga Mb.	75.62	33.71	39.42	148.74	73.12
Aralla 53	Bernesga Mb.	61.48	< D.L.	37.24	98.72	37.24
Aralla 54	Bernesga Mb.	97.38	44.92	40.26	182.57	85.19
Aralla 55	Bernesga Mb.	94.91	46.56	39.10	180.56	85.65
Aralla 56	Bernesga Mb.	98.01	43.54	38.11	179.66	81.65
Aralla 57	Bernesga Mb.	98.52	51.06	38.25	187.83	89.31
Aralla 58	Bernesga Mb.	101.91	39.73	39.25	180.88	78.97
Aralla 59	Bernesga Mb.	100.19	39.45	38.36	178.01	77.82
Aralla 60	Bernesga Mb.	79.28	16.51	37.85	133.63	54.36
Aralla 61	Bernesga Mb.	105.84	41.28	40.40	187.52	81.68
Aralla 62	Bernesga Mb.	65.33	40.23	39.92	145.48	80.15
Aralla 63	Bernesga Mb.	58.00	23.60	38.75	120.35	62.35
Aralla 64	Bernesga Mb.	< D.L.	44.86	40.28	85.13	85.13
Aralla 65	Bernesga Mb.	45.76	45.31	39.28	130.34	84.58
Aralla 66	Bernesga Mb.	< D.L.	27.79	38.38	66.17	66.17
Aralla 67	Bernesga Mb.	55.73	< D.L.	37.44	93.17	37.44
Aralla 68	Bernesga Mb.	< D.L.	< D.L.	36.59	36.59	36.59
Aralla 69	Bernesga Mb.	53.52	41.09	38.11	132.72	79.20
Aralla 70	Bernesga Mb.	51.18	25.94	37.53	114.65	63.47
Aralla 71	Bernesga Mb.	58.58	40.87	39.38	138.83	80.25
Aralla 72	Bernesga Mb.	69.98	40.16	40.37	150.50	80.53
Aralla 73	Bernesga Mb.	56.53	39.92	39.93	136.38	79.85
Aralla 74	Bernesga Mb.	49.47	39.73	39.03	128.23	78.76
Aralla 75	Bernesga Mb.	65.43	47.17	39.75	152.35	86.92

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
Aralla 51	Bernesga Mb.	96.48	70.32	63.31	230.11	133.63
Aralla 52	Bernesga Mb.	90.43	53.08	59.28	202.78	112.36
Aralla 53	Bernesga Mb.	73.52	< D.L.	55.99	129.51	55.99
Aralla 54	Bernesga Mb.	116.45	70.75	60.55	247.75	131.29
Aralla 55	Bernesga Mb.	113.49	73.32	58.79	245.60	132.11
Aralla 56	Bernesga Mb.	117.20	68.57	57.30	243.07	125.87
Aralla 57	Bernesga Mb.	117.81	80.41	57.51	255.74	137.93
Aralla 58	Bernesga Mb.	121.87	62.56	59.02	243.44	121.58
Aralla 59	Bernesga Mb.	119.81	62.13	57.69	239.63	119.82
Aralla 60	Bernesga Mb.	94.80	26.00	56.91	177.71	82.91
Aralla 61	Bernesga Mb.	126.56	65.01	60.75	252.32	125.76
Aralla 62	Bernesga Mb.	78.12	63.36	60.03	201.51	123.39
Aralla 63	Bernesga Mb.	69.36	37.16	58.28	164.80	95.44
Aralla 64	Bernesga Mb.	< D.L.	70.64	60.57	131.21	131.21
Aralla 65	Bernesga Mb.	54.72	71.35	59.06	185.13	130.41
Aralla 66	Bernesga Mb.	< D.L.	43.76	57.72	101.48	101.48
Aralla 67	Bernesga Mb.	66.64	< D.L.	56.31	122.95	56.31
Aralla 68	Bernesga Mb.	< D.L.	< D.L.	55.03	55.03	55.03
Aralla 69	Bernesga Mb.	64.00	64.71	57.32	186.02	122.02
Aralla 70	Bernesga Mb.	61.20	40.85	56.43	158.48	97.28
Aralla 71	Bernesga Mb.	70.05	64.36	59.22	193.63	123.58
Aralla 72	Bernesga Mb.	83.68	63.24	60.71	207.63	123.95
Aralla 73	Bernesga Mb.	67.60	62.87	60.04	190.51	122.91
Aralla 74	Bernesga Mb.	59.16	62.56	58.69	180.41	121.25
Aralla 75	Bernesga Mb.	78.24	74.28	59.78	212.30	134.06

Sample	Formation	U	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al2O3*5	10Al2O3
Aralla 51	Bernesga Mb.	12.06	120.60	241.20	6.20	4.18	5.60	35.62	5.07	151.44	302.88
Aralla 52	Bernesga Mb.	11.30	113.03	226.07	6.88	3.93	5.26	35.48	6.29	152.33	304.65
Aralla 53	Bernesga Mb.	9.19	91.90	183.80	9.19	3.10	4.16	33.00	9.17	141.23	282.47
Aralla 54	Bernesga Mb.	14.56	145.57	291.13	8.66	4.93	6.60	36.38	5.21	156.32	312.64
Aralla 55	Bernesga Mb.	14.19	141.87	283.73	8.08	4.83	6.47	33.62	5.03	143.22	286.44
Aralla 56	Bernesga Mb.	14.65	146.50	293.00	8.94	4.95	6.64	33.87	5.04	145.08	290.17
Aralla 57	Bernesga Mb.	14.73	147.27	294.53	8.03	4.97	6.66	33.27	5.01	142.01	284.02
Aralla 58	Bernesga Mb.	15.23	152.33	304.67	10.02	5.11	6.84	36.03	5.76	155.17	310.34
Aralla 59	Bernesga Mb.	14.98	149.77	299.53	9.80	5.04	6.75	34.00	5.49	145.56	291.12
Aralla 60	Bernesga Mb.	11.85	118.50	237.00	9.68	4.11	5.51	35.66	7.31	154.16	308.32
Aralla 61	Bernesga Mb.	15.82	158.20	316.40	10.40	5.26	7.05	34.01	5.34	144.41	288.82
Aralla 62	Bernesga Mb.	9.77	97.65	195.30	4.49	3.35	4.48	35.62	5.96	152.75	305.51
Aralla 63	Bernesga Mb.	8.67	86.70	173.40	5.57	2.87	3.85	34.09	6.90	145.81	291.61
Aralla 64	Bernesga Mb.	< D.L.	< D.L.	< D.L.	-5.89	< D.L.	< D.L.	35.82	5.55	153.51	307.03
Aralla 65	Bernesga Mb.	6.84	68.40	136.80	0.89	1.93	2.59	34.35	5.20	146.77	293.54
Aralla 66	Bernesga Mb.	< D.L.	< D.L.	< D.L.	-3.65	< D.L.	< D.L.	35.68	6.49	153.97	307.95
Aralla 67	Bernesga Mb.	8.33	83.30	166.60	8.33	2.72	3.64	35.37	9.67	152.99	305.98
Aralla 68	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	36.26	10.57	157.92	315.83
Aralla 69	Bernesga Mb.	8.00	80.00	160.00	2.61	2.55	3.42	34.12	5.22	146.30	292.61
Aralla 70	Bernesga Mb.	7.65	76.50	153.00	4.25	2.38	3.19	32.84	6.70	140.26	280.52
Aralla 71	Bernesga Mb.	8.76	87.57	175.13	3.39	2.91	3.90	33.02	5.40	140.07	280.13
Aralla 72	Bernesga Mb.	10.46	104.60	209.20	5.19	3.62	4.85	36.13	5.60	155.04	310.08
Aralla 73	Bernesga Mb.	8.45	84.50	169.00	3.21	2.77	3.71	34.45	5.17	146.89	293.79
Aralla 74	Bernesga Mb.	7.40	73.95	147.90	2.18	2.24	3.01	35.32	5.95	151.79	303.57
Aralla 75	Bernesga Mb.	9.78	97.80	195.60	3.59	3.35	4.49	36.69	4.92	158.17	316.34

Sample	Formation	15Al2O3	Al2O3/10	K2O*5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	200TiO2	300TiO2	K2O/Al2O3
Aralla 51	Bernesga Mb.	454.32	3.03	19.79	< D.L.	9.60	-11308.06	2.88	3.70	246.17	369.25	0.13
Aralla 52	Bernesga Mb.	456.98	3.05	18.52	< D.L.	9.40	-2917.35	3.74	4.81	241.67	362.50	0.12
Aralla 53	Bernesga Mb.	423.70	2.82	17.50	< D.L.	< D.L.	26778.53	6.42	8.25	221.26	331.89	0.12
Aralla 54	Bernesga Mb.	468.97	3.13	18.92	< D.L.	10.26	-12109.37	2.93	3.76	243.80	365.70	0.12
Aralla 55	Bernesga Mb.	429.67	2.86	18.37	< D.L.	10.01	-9742.47	2.82	3.62	242.19	363.28	0.13
Aralla 56	Bernesga Mb.	435.25	2.90	17.91	< D.L.	10.18	-10268.03	2.81	3.62	237.57	356.36	0.12
Aralla 57	Bernesga Mb.	426.03	2.84	17.97	< D.L.	9.25	-8984.47	2.86	3.68	241.98	362.97	0.13
Aralla 58	Bernesga Mb.	465.51	3.10	18.44	< D.L.	10.43	-8034.13	3.30	4.25	240.58	360.86	0.12
Aralla 59	Bernesga Mb.	436.69	2.91	18.03	< D.L.	9.33	-6662.09	3.19	4.10	232.89	349.34	0.12
Aralla 60	Bernesga Mb.	462.48	3.08	17.78	< D.L.	< D.L.	10358.35	5.12	6.58	224.30	336.45	0.12
Aralla 61	Bernesga Mb.	433.23	2.89	18.98	< D.L.	10.59	-8274.06	2.99	3.85	233.62	350.43	0.13
Aralla 62	Bernesga Mb.	458.26	3.06	18.76	< D.L.	10.76	-6286.50	3.41	4.39	230.89	346.34	0.12
Aralla 63	Bernesga Mb.	437.42	2.92	18.21	< D.L.	< D.L.	9672.52	4.83	6.21	225.11	337.67	0.12
Aralla 64	Bernesga Mb.	460.54	3.07	18.93	< D.L.	9.93	-8770.44	3.19	4.10	236.03	354.04	0.12
Aralla 65	Bernesga Mb.	440.31	2.94	18.46	< D.L.	9.79	-9285.26	2.96	3.80	237.32	355.98	0.13
Aralla 66	Bernesga Mb.	461.92	3.08	18.04	< D.L.	< D.L.	4632.60	4.54	5.84	231.62	347.43	0.12
Aralla 67	Bernesga Mb.	458.97	3.06	17.60	< D.L.	9.80	20275.67	6.08	7.82	224.36	336.54	0.12
Aralla 68	Bernesga Mb.	473.75	3.16	17.20	0.39	12.58	23341.54	6.51	8.38	222.80	334.19	0.11
Aralla 69	Bernesga Mb.	438.91	2.93	17.91	< D.L.	9.81	-9081.96	2.96	3.81	235.96	353.93	0.12
Aralla 70	Bernesga Mb.	420.78	2.81	17.63	< D.L.	9.99	2735.19	3.99	5.13	234.00	351.00	0.13
Aralla 71	Bernesga Mb.	420.20	2.80	18.51	< D.L.	9.34	-5801.42	3.13	4.02	234.52	351.78	0.13
Aralla 72	Bernesga Mb.	465.11	3.10	18.97	< D.L.	10.51	-9211.41	3.18	4.09	237.56	356.34	0.12
Aralla 73	Bernesga Mb.	440.68	2.94	18.76	< D.L.	9.93	-9672.63	2.92	3.76	234.08	351.12	0.13
Aralla 74	Bernesga Mb.	455.36	3.04	18.34	< D.L.	9.96	-5483.05	3.47	4.46	235.90	353.85	0.12
Aralla 75	Bernesga Mb.	474.51	3.16	18.68	< D.L.	10.71	-14943.06	2.69	3.46	242.24	363.36	0.12

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
Aralla 51	Bernesga Mb.	-0.88	0.03	0.61	0.26	0.35	2.87	-0.46	21.99
Aralla 52	Bernesga Mb.	-0.92	0.03	0.73	0.24	0.35	2.83	-0.45	23.31
Aralla 53	Bernesga Mb.	-0.91	< D.L.	0.96	0.24	0.36	2.80	-0.45	22.59
Aralla 54	Bernesga Mb.	-0.92	0.03	0.62	0.24	0.35	2.85	-0.45	23.52
Aralla 55	Bernesga Mb.	-0.89	0.03	0.60	0.28	0.35	2.83	-0.45	22.05
Aralla 56	Bernesga Mb.	-0.91	0.04	0.60	0.28	0.36	2.81	-0.45	22.79
Aralla 57	Bernesga Mb.	-0.90	0.03	0.61	0.26	0.36	2.82	-0.45	22.25
Aralla 58	Bernesga Mb.	-0.93	0.03	0.67	0.26	0.35	2.83	-0.45	23.82
Aralla 59	Bernesga Mb.	-0.91	0.03	0.66	0.27	0.35	2.82	-0.45	22.75
Aralla 60	Bernesga Mb.	-0.94	< D.L.	0.86	0.23	0.36	2.81	-0.45	24.35
Aralla 61	Bernesga Mb.	-0.88	0.04	0.63	0.27	0.35	2.85	-0.45	21.67
Aralla 62	Bernesga Mb.	-0.91	0.04	0.69	0.26	0.35	2.84	-0.45	23.14
Aralla 63	Bernesga Mb.	-0.90	< D.L.	0.84	0.24	0.35	2.82	-0.45	22.61
Aralla 64	Bernesga Mb.	-0.91	0.03	0.66	0.24	0.35	2.85	-0.45	23.09
Aralla 65	Bernesga Mb.	-0.90	0.03	0.63	0.25	0.35	2.83	-0.45	22.52
Aralla 66	Bernesga Mb.	-0.93	< D.L.	0.81	0.23	0.35	2.82	-0.45	24.05
Aralla 67	Bernesga Mb.	-0.94	0.03	0.94	0.21	0.36	2.80	-0.45	24.37
Aralla 68	Bernesga Mb.	-0.96	0.04	0.97	0.20	0.36	2.79	-0.45	22.13
Aralla 69	Bernesga Mb.	-0.91	0.03	0.63	0.26	0.36	2.81	-0.45	22.98
Aralla 70	Bernesga Mb.	-0.90	0.04	0.76	0.28	0.36	2.80	-0.45	22.30
Aralla 71	Bernesga Mb.	-0.88	0.03	0.65	0.28	0.35	2.83	-0.45	21.45
Aralla 72	Bernesga Mb.	-0.91	0.03	0.66	0.24	0.35	2.85	-0.45	23.28
Aralla 73	Bernesga Mb.	-0.89	0.03	0.62	0.26	0.35	2.84	-0.45	22.25
Aralla 74	Bernesga Mb.	-0.92	0.03	0.70	0.23	0.35	2.83	-0.45	23.40
Aralla 75	Bernesga Mb.	-0.93	0.03	0.59	0.24	0.35	2.84	-0.45	24.04

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
Aralla 51	Bernesga Mb.	1.38	5.33	5.07	1.80	0.26	0.56	0.14	40.52	0.00
Aralla 52	Bernesga Mb.	1.31	5.01	6.29	1.74	0.24	0.57	0.18	40.15	0.00
Aralla 53	Bernesga Mb.	1.25	4.75	9.17	1.75	0.24	0.57	0.32	36.74	0.00
Aralla 54	Bernesga Mb.	1.33	5.11	5.21	1.75	0.24	0.57	0.13	43.52	0.01
Aralla 55	Bernesga Mb.	1.30	4.97	5.03	1.90	0.28	0.53	0.14	42.67	0.01
Aralla 56	Bernesga Mb.	1.27	4.85	5.04	1.93	0.28	0.52	0.14	41.60	0.01
Aralla 57	Bernesga Mb.	1.28	4.87	5.01	1.83	0.26	0.55	0.14	44.27	0.01
Aralla 58	Bernesga Mb.	1.30	4.99	5.76	1.80	0.26	0.56	0.15	40.98	0.00
Aralla 59	Bernesga Mb.	1.28	4.89	5.49	1.85	0.27	0.54	0.16	41.47	0.01
Aralla 60	Bernesga Mb.	1.27	4.82	7.31	1.68	0.23	0.60	0.24	39.94	0.00
Aralla 61	Bernesga Mb.	1.33	5.13	5.34	1.85	0.27	0.54	0.15	42.29	0.01
Aralla 62	Bernesga Mb.	1.32	5.07	5.96	1.81	0.26	0.55	0.16	40.45	0.00
Aralla 63	Bernesga Mb.	1.29	4.93	6.90	1.73	0.24	0.58	0.24	40.07	0.00
Aralla 64	Bernesga Mb.	1.33	5.11	5.55	1.73	0.24	0.58	0.15	42.56	0.01
Aralla 65	Bernesga Mb.	1.30	4.99	5.20	1.77	0.25	0.56	0.14	43.52	0.01
Aralla 66	Bernesga Mb.	1.28	4.89	6.49	1.69	0.23	0.59	0.21	40.68	0.00
Aralla 67	Bernesga Mb.	1.26	4.78	9.67	1.61	0.21	0.62	0.28	39.18	0.00
Aralla 68	Bernesga Mb.	1.43	4.87	10.57	1.60	0.20	0.62	0.29	36.54	0.00
Aralla 69	Bernesga Mb.	1.27	4.86	5.22	1.81	0.26	0.55	0.14	42.50	0.01
Aralla 70	Bernesga Mb.	1.26	4.78	6.70	1.89	0.28	0.53	0.20	40.02	0.00
Aralla 71	Bernesga Mb.	1.31	5.01	5.40	1.91	0.28	0.52	0.16	41.69	0.01
Aralla 72	Bernesga Mb.	1.33	5.13	5.60	1.75	0.24	0.57	0.15	42.06	0.01
Aralla 73	Bernesga Mb.	1.32	5.07	5.17	1.80	0.26	0.55	0.14	43.87	0.01
Aralla 74	Bernesga Mb.	1.30	4.97	5.95	1.69	0.23	0.59	0.16	41.89	0.01
Aralla 75	Bernesga Mb.	1.32	5.05	4.92	1.72	0.24	0.58	0.12	43.49	0.01

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Ti Cal (ppm)	Zr/Sc	Cr/Th	Th/Sc
Aralla 51	Bernesga Mb.	24.61	0.06	339.33	< D.L.	193.42	0.22	0.90	1.36	< D.L.	< D.L.	5.86	7377.74	< D.L.	8.24	< D.L.
Aralla 52	Bernesga Mb.	25.21	0.06	363.65	< D.L.	202.54	0.30	0.87	1.62	< D.L.	< D.L.	4.42	7242.94	< D.L.	9.80	< D.L.
Aralla 53	Bernesga Mb.	25.53	0.06	376.00	1.53	197.82	0.39	0.83	1.84	50.04	< D.L.	< D.L.	6631.22	< D.L.	< D.L.	< D.L.
Aralla 54	Bernesga Mb.	25.65	0.06	339.22	< D.L.	197.12	0.21	0.83	1.71	< D.L.	< D.L.	5.90	7306.69	< D.L.	7.74	< D.L.
Aralla 55	Bernesga Mb.	23.65	0.06	341.77	< D.L.	197.19	0.21	0.89	1.78	< D.L.	15.48	6.11	7258.48	8.09	7.62	1.02
Aralla 56	Bernesga Mb.	24.43	0.05	329.15	< D.L.	170.05	0.19	0.83	1.61	< D.L.	10.67	5.71	7120.13	7.66	7.25	0.76
Aralla 57	Bernesga Mb.	23.47	0.06	360.32	< D.L.	186.03	0.17	0.88	1.72	< D.L.	< D.L.	6.70	7252.18	< D.L.	6.94	< D.L.
Aralla 58	Bernesga Mb.	25.80	0.06	344.33	< D.L.	183.91	0.22	0.83	1.74	< D.L.	10.13	5.21	7210.16	5.54	8.06	0.60
Aralla 59	Bernesga Mb.	25.00	0.06	362.63	< D.L.	180.54	0.23	0.86	1.52	< D.L.	< D.L.	5.18	6979.81	< D.L.	8.25	< D.L.
Aralla 60	Bernesga Mb.	27.49	0.06	382.61	1.53	196.83	0.33	0.82	1.70	< D.L.	< D.L.	2.17	6722.40	< D.L.	17.99	< D.L.
Aralla 61	Bernesga Mb.	24.73	0.06	345.92	< D.L.	178.98	0.22	0.80	1.42	< D.L.	< D.L.	5.42	7001.76	< D.L.	7.88	< D.L.
Aralla 62	Bernesga Mb.	26.46	0.06	346.28	< D.L.	198.34	0.34	0.84	1.39	< D.L.	< D.L.	5.28	6919.87	< D.L.	8.05	< D.L.
Aralla 63	Bernesga Mb.	25.91	0.06	369.37	< D.L.	186.54	0.31	0.79	1.59	< D.L.	< D.L.	3.10	6746.70	< D.L.	12.35	< D.L.
Aralla 64	Bernesga Mb.	26.02	0.06	339.90	< D.L.	205.24	0.34	0.87	1.20	< D.L.	< D.L.	5.89	7073.77	< D.L.	7.94	< D.L.
Aralla 65	Bernesga Mb.	24.74	0.06	354.23	< D.L.	184.71	0.25	0.84	1.22	< D.L.	< D.L.	5.95	7112.62	< D.L.	7.60	< D.L.
Aralla 66	Bernesga Mb.	26.59	0.06	360.86	< D.L.	182.13	0.38	0.76	1.27	< D.L.	< D.L.	3.65	6941.75	< D.L.	10.16	< D.L.
Aralla 67	Bernesga Mb.	27.28	0.06	379.61	1.01	186.74	0.37	0.82	1.43	< D.L.	< D.L.	< D.L.	6724.15	< D.L.	< D.L.	< D.L.
Aralla 68	Bernesga Mb.	28.35	0.06	386.43	1.00	185.81	0.41	0.92	1.37	< D.L.	< D.L.	< D.L.	6677.27	< D.L.	< D.L.	< D.L.
Aralla 69	Bernesga Mb.	24.80	0.06	366.99	< D.L.	183.82	0.26	0.90	1.22	< D.L.	10.71	5.39	7071.69	8.52	8.43	0.93
Aralla 70	Bernesga Mb.	23.98	0.06	340.35	< D.L.	180.53	0.36	0.79	1.37	37.20	9.25	3.40	7013.02	7.59	10.86	0.49
Aralla 71	Bernesga Mb.	23.89	0.06	336.43	< D.L.	200.11	0.26	0.91	1.51	< D.L.	< D.L.	5.36	7028.63	< D.L.	8.70	< D.L.
Aralla 72	Bernesga Mb.	26.11	0.06	348.14	< D.L.	198.60	0.27	0.87	1.41	< D.L.	< D.L.	5.27	7119.78	< D.L.	8.78	< D.L.
Aralla 73	Bernesga Mb.	25.10	0.06	341.39	< D.L.	177.36	0.22	0.81	1.21	< D.L.	< D.L.	5.24	7015.48	< D.L.	8.50	< D.L.
Aralla 74	Bernesga Mb.	25.74	0.06	365.22	1.40	193.43	0.32	0.86	1.23	< D.L.	7.57	5.21	7069.96	4.97	8.47	0.63
Aralla 75	Bernesga Mb.	26.12	0.06	341.31	< D.L.	179.50	0.22	0.83	1.24	< D.L.	< D.L.	6.19	7259.93	< D.L.	7.29	< D.L.

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
Aralla 51	Bernesga Mb.	0.86	1.16	0.02	6.34	0.95	1.72	< D.L.	0.66	1.51
Aralla 52	Bernesga Mb.	0.94	1.07	0.02	6.98	1.07	2.13	< D.L.	0.54	1.85
Aralla 53	Bernesga Mb.	1.06	0.94	0.02	7.76	1.28	4.60	< D.L.	0.45	2.22
Aralla 54	Bernesga Mb.	0.79	1.27	0.02	6.01	0.95	1.52	< D.L.	0.49	2.06
Aralla 55	Bernesga Mb.	0.93	1.07	0.02	6.87	1.05	1.52	< D.L.	0.50	2.00
Aralla 56	Bernesga Mb.	1.16	0.86	0.02	7.98	1.39	1.45	< D.L.	0.52	1.94
Aralla 57	Bernesga Mb.	0.83	1.21	0.02	6.55	0.95	2.60	< D.L.	0.51	1.96
Aralla 58	Bernesga Mb.	0.95	1.05	0.02	6.84	1.14	2.32	< D.L.	0.48	2.08
Aralla 59	Bernesga Mb.	0.96	1.04	0.02	7.48	1.12	1.92	< D.L.	0.56	1.77
Aralla 60	Bernesga Mb.	0.87	1.14	0.02	7.07	1.06	3.16	< D.L.	0.48	2.07
Aralla 61	Bernesga Mb.	0.84	1.18	0.02	6.70	1.06	1.76	< D.L.	0.56	1.78
Aralla 62	Bernesga Mb.	0.90	1.11	0.02	6.87	1.08	2.29	< D.L.	0.60	1.65
Aralla 63	Bernesga Mb.	0.83	1.21	0.02	6.63	1.05	3.27	< D.L.	0.49	2.03
Aralla 64	Bernesga Mb.	0.78	1.29	0.02	6.01	0.89	2.11	< D.L.	0.73	1.38
Aralla 65	Bernesga Mb.	0.76	1.31	0.02	6.11	0.91	1.70	< D.L.	0.69	1.45
Aralla 66	Bernesga Mb.	0.86	1.16	0.02	6.57	1.14	2.99	< D.L.	0.60	1.68
Aralla 67	Bernesga Mb.	0.83	1.21	0.02	6.44	1.01	4.25	< D.L.	0.57	1.75
Aralla 68	Bernesga Mb.	0.96	1.04	0.02	6.96	1.04	4.49	< D.L.	0.67	1.49
Aralla 69	Bernesga Mb.	0.97	1.03	0.02	7.67	1.08	1.88	< D.L.	0.73	1.36
Aralla 70	Bernesga Mb.	1.12	0.89	0.02	7.69	1.43	2.81	< D.L.	0.57	1.74
Aralla 71	Bernesga Mb.	0.96	1.04	0.02	7.08	1.06	2.08	< D.L.	0.60	1.66
Aralla 72	Bernesga Mb.	0.83	1.21	0.02	6.45	0.95	1.81	< D.L.	0.62	1.62
Aralla 73	Bernesga Mb.	0.78	1.28	0.02	6.25	0.96	1.60	< D.L.	0.67	1.49
Aralla 74	Bernesga Mb.	0.81	1.24	0.02	6.42	0.94	2.27	< D.L.	0.70	1.43
Aralla 75	Bernesga Mb.	0.94	1.06	0.02	7.20	1.13	1.37	< D.L.	0.67	1.49

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
Aralla 51	Bernesga Mb.	0.82	0.75	13.63	< D.L.	< D.L.	2.08	3.02	9.04
Aralla 52	Bernesga Mb.	1.52	0.70	14.92	< D.L.	< D.L.	2.49	4.50	8.06
Aralla 53	Bernesga Mb.	2.48	0.61	15.83	2.62	< D.L.	4.02	6.10	7.13
Aralla 54	Bernesga Mb.	0.66	0.88	17.01	< D.L.	< D.L.	1.63	3.64	8.28
Aralla 55	Bernesga Mb.	0.83	0.94	18.43	< D.L.	4.10	2.11	3.80	9.21
Aralla 56	Bernesga Mb.	0.92	0.95	15.66	< D.L.	< D.L.	2.40	2.98	8.09
Aralla 57	Bernesga Mb.	0.67	0.98	18.19	< D.L.	2.88	2.42	3.10	9.28
Aralla 58	Bernesga Mb.	0.99	0.93	15.98	< D.L.	< D.L.	2.11	3.52	7.68
Aralla 59	Bernesga Mb.	1.16	0.97	14.77	< D.L.	< D.L.	2.98	3.40	8.32
Aralla 60	Bernesga Mb.	1.83	0.73	14.82	2.34	< D.L.	3.57	4.90	7.16
Aralla 61	Bernesga Mb.	0.86	1.03	14.89	< D.L.	< D.L.	1.80	3.33	8.37
Aralla 62	Bernesga Mb.	1.02	0.60	13.04	< D.L.	< D.L.	2.82	4.38	7.88
Aralla 63	Bernesga Mb.	1.64	0.56	15.06	< D.L.	< D.L.	2.42	4.65	7.44
Aralla 64	Bernesga Mb.	1.29	< D.L.	11.87	< D.L.	< D.L.	2.25	4.01	8.63
Aralla 65	Bernesga Mb.	1.04	0.44	12.61	< D.L.	< D.L.	2.54	3.17	8.72
Aralla 66	Bernesga Mb.	1.44	< D.L.	11.45	< D.L.	< D.L.	1.73	4.35	6.82
Aralla 67	Bernesga Mb.	2.04	0.51	12.21	2.93	< D.L.	2.95	4.57	6.96
Aralla 68	Bernesga Mb.	2.14	< D.L.	10.29	3.46	< D.L.	3.46	4.21	6.91
Aralla 69	Bernesga Mb.	0.97	0.52	12.00	< D.L.	< D.L.	3.38	3.07	8.80
Aralla 70	Bernesga Mb.	1.58	0.52	13.00	< D.L.	< D.L.	3.54	4.69	7.47
Aralla 71	Bernesga Mb.	1.18	0.59	15.69	< D.L.	< D.L.	2.65	4.05	9.44
Aralla 72	Bernesga Mb.	1.24	0.64	13.70	< D.L.	< D.L.	2.46	3.65	8.46
Aralla 73	Bernesga Mb.	0.90	0.54	12.82	< D.L.	< D.L.	2.72	2.82	8.59
Aralla 74	Bernesga Mb.	1.38	0.46	11.78	2.28	< D.L.	3.19	3.80	8.24
Aralla 75	Bernesga Mb.	0.74	0.58	12.08	< D.L.	< D.L.	1.56	2.63	8.09

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
Aralla 51	Bernesga Mb.	< D.L.	12.00	26.86	17.16	8.60	0.82	18.35	< D.L.
Aralla 52	Bernesga Mb.	< D.L.	11.86	27.17	19.61	8.63	0.77	18.57	< D.L.
Aralla 53	Bernesga Mb.	0.32	12.51	30.87	39.54	9.15	0.72	21.10	0.17
Aralla 54	Bernesga Mb.	< D.L.	11.64	26.16	15.15	7.83	0.82	17.88	< D.L.
Aralla 55	Bernesga Mb.	< D.L.	12.58	28.36	15.73	9.63	0.83	19.38	< D.L.
Aralla 56	Bernesga Mb.	< D.L.	12.25	28.04	14.04	11.24	0.84	19.16	< D.L.
Aralla 57	Bernesga Mb.	< D.L.	12.61	28.83	27.57	8.77	0.85	19.70	< D.L.
Aralla 58	Bernesga Mb.	< D.L.	11.50	26.56	21.35	8.73	0.82	18.15	< D.L.
Aralla 59	Bernesga Mb.	< D.L.	12.25	28.73	18.60	9.35	0.81	19.63	< D.L.
Aralla 60	Bernesga Mb.	< D.L.	11.42	27.72	27.52	7.61	0.75	18.94	< D.L.
Aralla 61	Bernesga Mb.	< D.L.	12.35	28.61	18.52	8.87	0.82	19.55	< D.L.
Aralla 62	Bernesga Mb.	< D.L.	11.72	27.10	21.54	8.49	0.75	18.52	< D.L.
Aralla 63	Bernesga Mb.	< D.L.	12.12	28.66	30.96	7.84	0.76	19.59	< D.L.
Aralla 64	Bernesga Mb.	< D.L.	11.82	26.73	20.87	7.69	0.75	18.27	< D.L.
Aralla 65	Bernesga Mb.	< D.L.	12.44	27.75	17.62	7.90	0.80	18.97	< D.L.
Aralla 66	Bernesga Mb.	< D.L.	11.65	26.98	26.90	7.75	0.72	18.44	< D.L.
Aralla 67	Bernesga Mb.	< D.L.	11.49	28.13	36.21	7.05	0.73	19.22	< D.L.
Aralla 68	Bernesga Mb.	< D.L.	11.15	26.96	33.77	7.20	0.71	18.43	< D.L.
Aralla 69	Bernesga Mb.	< D.L.	12.17	27.96	18.49	9.54	0.80	19.11	< D.L.
Aralla 70	Bernesga Mb.	0.35	12.55	29.58	26.72	10.67	0.73	20.21	0.19
Aralla 71	Bernesga Mb.	< D.L.	12.66	29.78	21.64	9.97	0.79	20.35	< D.L.
Aralla 72	Bernesga Mb.	< D.L.	11.52	27.11	17.62	8.03	0.79	18.53	< D.L.
Aralla 73	Bernesga Mb.	< D.L.	12.02	27.95	16.91	8.25	0.82	19.10	< D.L.
Aralla 74	Bernesga Mb.	< D.L.	11.69	27.88	21.67	7.73	0.76	19.05	< D.L.
Aralla 75	Bernesga Mb.	< D.L.	11.45	26.08	13.28	9.15	0.82	17.82	< D.L.

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
Aralla 51	Bernesga Mb.	1.46	0.69	1.55	11.44	< D.L.	1.04	0.02	1.32	0.01	< D.L.	< D.L.
Aralla 52	Bernesga Mb.	1.17	0.85	1.51	12.31	< D.L.	1.44	0.16	2.44	0.01	< D.L.	< D.L.
Aralla 53	Bernesga Mb.	< D.L.	< D.L.	1.42	14.88	< D.L.	2.62	0.42	3.70	0.01	0.04	0.36
Aralla 54	Bernesga Mb.	1.22	0.82	1.53	8.90	< D.L.	1.11	0.04	1.09	0.01	< D.L.	< D.L.
Aralla 55	Bernesga Mb.	1.29	0.77	1.59	10.29	0.23	1.10	0.04	1.26	0.01	< D.L.	< D.L.
Aralla 56	Bernesga Mb.	1.17	0.85	1.71	11.78	< D.L.	1.12	0.05	1.42	0.01	< D.L.	< D.L.
Aralla 57	Bernesga Mb.	1.37	0.73	1.53	8.95	0.34	1.14	0.06	1.01	0.01	< D.L.	< D.L.
Aralla 58	Bernesga Mb.	1.03	0.97	1.56	9.41	< D.L.	1.28	0.11	1.62	0.01	< D.L.	< D.L.
Aralla 59	Bernesga Mb.	1.04	0.96	1.55	9.62	< D.L.	1.26	0.10	1.79	0.01	< D.L.	< D.L.
Aralla 60	Bernesga Mb.	0.55	1.82	1.43	10.48	< D.L.	2.06	0.31	2.98	0.01	< D.L.	< D.L.
Aralla 61	Bernesga Mb.	1.03	0.97	1.57	8.57	< D.L.	1.13	0.05	1.32	0.01	< D.L.	< D.L.
Aralla 62	Bernesga Mb.	1.62	0.62	1.52	14.05	< D.L.	1.30	0.11	1.65	0.01	< D.L.	< D.L.
Aralla 63	Bernesga Mb.	1.07	0.93	1.43	13.96	< D.L.	1.89	0.28	2.53	0.01	< D.L.	< D.L.
Aralla 64	Bernesga Mb.	< D.L.	< D.L.	1.49	< D.L.	< D.L.	1.20	0.08	2.10	0.01	< D.L.	< D.L.
Aralla 65	Bernesga Mb.	2.61	0.38	1.47	17.95	< D.L.	1.14	0.06	1.61	0.01	< D.L.	< D.L.
Aralla 66	Bernesga Mb.	< D.L.	< D.L.	1.44	< D.L.	< D.L.	1.80	0.25	2.34	0.01	< D.L.	< D.L.
Aralla 67	Bernesga Mb.	< D.L.	< D.L.	1.35	13.70	< D.L.	2.47	0.39	3.30	0.01	< D.L.	< D.L.
Aralla 68	Bernesga Mb.	< D.L.	< D.L.	1.32	< D.L.	< D.L.	2.71	0.43	3.58	0.01	0.03	0.28
Aralla 69	Bernesga Mb.	2.02	0.49	1.59	18.47	< D.L.	1.18	0.07	1.51	0.01	< D.L.	< D.L.
Aralla 70	Bernesga Mb.	1.34	0.75	1.61	20.71	< D.L.	1.62	0.21	2.35	0.01	< D.L.	< D.L.
Aralla 71	Bernesga Mb.	1.84	0.54	1.61	16.89	< D.L.	1.21	0.08	1.76	0.01	< D.L.	< D.L.
Aralla 72	Bernesga Mb.	1.51	0.66	1.54	12.60	< D.L.	1.20	0.08	2.03	0.01	< D.L.	< D.L.
Aralla 73	Bernesga Mb.	1.86	0.54	1.57	15.19	< D.L.	1.11	0.05	1.40	0.01	< D.L.	< D.L.
Aralla 74	Bernesga Mb.	2.11	0.47	1.48	16.80	< D.L.	1.35	0.13	2.22	0.01	< D.L.	< D.L.
Aralla 75	Bernesga Mb.	1.90	0.53	1.65	15.66	< D.L.	1.03	0.01	1.23	0.01	< D.L.	< D.L.

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	V (wt%)	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
Aralla 51	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.20	0.02	7.52	13.79	415316.12	818.50	-26.20
Aralla 52	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.88	0.02	7.37	13.91	409031.42	1126.07	-23.77
Aralla 53	Bernesga Mb.	715.90	0.05	0.07	9.19	0.02	6.74	13.68	381000.33	1512.53	-13.01
Aralla 54	Bernesga Mb.	< D.L.	< D.L.	< D.L.	8.66	0.03	7.44	12.96	421924.82	871.10	-27.18
Aralla 55	Bernesga Mb.	< D.L.	< D.L.	< D.L.	8.08	0.03	7.40	14.60	406220.48	895.17	-24.49
Aralla 56	Bernesga Mb.	< D.L.	< D.L.	< D.L.	8.94	0.02	7.24	17.26	414972.05	827.07	-24.93
Aralla 57	Bernesga Mb.	< D.L.	< D.L.	< D.L.	8.03	0.03	7.39	13.18	393361.26	829.40	-24.07
Aralla 58	Bernesga Mb.	< D.L.	< D.L.	< D.L.	10.02	0.03	7.34	14.33	425280.83	924.53	-25.76
Aralla 59	Bernesga Mb.	< D.L.	< D.L.	< D.L.	9.80	0.02	7.11	14.40	405376.31	982.80	-23.90
Aralla 60	Bernesga Mb.	< D.L.	< D.L.	< D.L.	9.68	0.02	6.84	12.42	405210.74	1381.27	-19.98
Aralla 61	Bernesga Mb.	< D.L.	< D.L.	< D.L.	10.40	0.02	7.13	13.56	403218.13	784.23	-24.22
Aralla 62	Bernesga Mb.	< D.L.	< D.L.	< D.L.	4.49	0.02	7.05	13.72	419554.81	1164.10	-24.86
Aralla 63	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.57	0.02	6.86	12.11	390659.92	1091.20	-18.93
Aralla 64	Bernesga Mb.	< D.L.	< D.L.	< D.L.	-5.89	0.02	7.21	12.50	411022.29	1016.70	-25.73
Aralla 65	Bernesga Mb.	< D.L.	< D.L.	< D.L.	0.89	0.02	7.25	12.28	398469.18	886.02	-24.88
Aralla 66	Bernesga Mb.	< D.L.	< D.L.	< D.L.	-3.65	0.02	7.05	12.64	406245.10	990.83	-21.70
Aralla 67	Bernesga Mb.	< D.L.	< D.L.	< D.L.	8.33	0.02	6.84	11.41	392402.39	1217.90	-16.77
Aralla 68	Bernesga Mb.	560.67	0.04	0.06	< D.L.	0.02	6.79	12.03	403688.80	1281.57	-16.57
Aralla 69	Bernesga Mb.	< D.L.	< D.L.	< D.L.	2.61	0.02	7.21	14.78	402752.08	999.17	-24.75
Aralla 70	Bernesga Mb.	< D.L.	< D.L.	< D.L.	4.25	0.02	7.12	15.84	396474.30	1221.27	-20.22
Aralla 71	Bernesga Mb.	< D.L.	< D.L.	< D.L.	3.39	0.02	7.17	14.79	398276.55	994.27	-22.81
Aralla 72	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.19	0.02	7.26	13.18	417878.82	1002.17	-26.10
Aralla 73	Bernesga Mb.	< D.L.	< D.L.	< D.L.	3.21	0.02	7.15	12.83	403084.22	860.97	-25.02
Aralla 74	Bernesga Mb.	< D.L.	< D.L.	< D.L.	2.18	0.02	7.20	12.42	400535.86	1122.07	-24.47
Aralla 75	Bernesga Mb.	< D.L.	< D.L.	< D.L.	3.59	0.02	7.40	15.31	421850.70	701.97	-28.32

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
Aralla 51	Bernesga Mb.	-12.24	16.36	-3.46	0.78	95.03	95.65
Aralla 52	Bernesga Mb.	-11.11	16.45	-2.27	0.83	95.34	95.89
Aralla 53	Bernesga Mb.	-6.08	15.25	2.11	1.53	95.19	95.76
Aralla 54	Bernesga Mb.	-12.70	16.88	-3.63	0.78	95.39	95.92
Aralla 55	Bernesga Mb.	-11.44	15.47	-3.14	0.78	95.06	95.66
Aralla 56	Bernesga Mb.	-11.65	15.67	-3.23	0.78	95.23	95.80
Aralla 57	Bernesga Mb.	-11.25	15.34	-3.01	0.79	95.11	95.70
Aralla 58	Bernesga Mb.	-12.04	16.76	-3.04	0.80	95.45	95.97
Aralla 59	Bernesga Mb.	-11.17	15.72	-2.72	0.80	95.22	95.79
Aralla 60	Bernesga Mb.	-9.34	16.65	-0.39	0.96	95.56	96.06
Aralla 61	Bernesga Mb.	-11.32	15.60	-2.94	0.79	94.96	95.59
Aralla 62	Bernesga Mb.	-11.62	16.50	-2.76	0.81	95.30	95.86
Aralla 63	Bernesga Mb.	-8.85	15.75	-0.39	0.96	95.19	95.76
Aralla 64	Bernesga Mb.	-12.03	16.58	-3.12	0.79	95.29	95.85
Aralla 65	Bernesga Mb.	-11.63	15.85	-3.11	0.79	95.17	95.75
Aralla 66	Bernesga Mb.	-10.14	16.63	-1.21	0.89	95.50	96.01
Aralla 67	Bernesga Mb.	-7.84	16.52	1.04	1.15	95.57	96.06
Aralla 68	Bernesga Mb.	-7.74	17.06	1.42	1.22	95.17	95.68
Aralla 69	Bernesga Mb.	-11.56	15.80	-3.08	0.79	95.28	95.83
Aralla 70	Bernesga Mb.	-9.45	15.15	-1.32	0.88	95.12	95.71
Aralla 71	Bernesga Mb.	-10.66	15.13	-2.53	0.81	94.90	95.54
Aralla 72	Bernesga Mb.	-12.20	16.74	-3.20	0.79	95.33	95.88
Aralla 73	Bernesga Mb.	-11.69	15.86	-3.17	0.79	95.10	95.70
Aralla 74	Bernesga Mb.	-11.43	16.39	-2.63	0.81	95.37	95.90
Aralla 75	Bernesga Mb.	-13.23	17.08	-4.06	0.77	95.50	96.01

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
Aralla 51	Bernesga Mb.	85.03	4.67	-0.08	4.70
Aralla 52	Bernesga Mb.	85.87	6.06	-0.75	6.09
Aralla 53	Bernesga Mb.	85.60	9.43	-1.15	9.46
Aralla 54	Bernesga Mb.	85.94	5.43	-0.38	5.46
Aralla 55	Bernesga Mb.	85.21	3.89	-0.67	3.92
Aralla 56	Bernesga Mb.	85.67	4.23	-0.81	4.26
Aralla 57	Bernesga Mb.	85.36	3.99	-0.74	4.02
Aralla 58	Bernesga Mb.	86.14	5.80	-0.70	5.84
Aralla 59	Bernesga Mb.	85.63	4.83	-0.82	4.86
Aralla 60	Bernesga Mb.	86.47	9.50	-0.41	9.53
Aralla 61	Bernesga Mb.	84.92	4.08	-0.61	4.11
Aralla 62	Bernesga Mb.	85.76	5.60	-0.74	5.63
Aralla 63	Bernesga Mb.	85.53	8.07	-0.29	8.10
Aralla 64	Bernesga Mb.	85.72	5.49	-0.49	5.52
Aralla 65	Bernesga Mb.	85.46	4.53	-0.63	4.56
Aralla 66	Bernesga Mb.	86.30	8.73	-0.11	8.76
Aralla 67	Bernesga Mb.	86.50	8.97	-1.95	9.00
Aralla 68	Bernesga Mb.	86.65	9.85	-2.48	9.88
Aralla 69	Bernesga Mb.	85.77	4.61	-0.81	4.64
Aralla 70	Bernesga Mb.	85.43	5.03	-1.37	5.07
Aralla 71	Bernesga Mb.	84.84	3.98	-0.72	4.01
Aralla 72	Bernesga Mb.	85.81	5.56	-0.51	5.59
Aralla 73	Bernesga Mb.	85.28	4.44	-0.54	4.48
Aralla 74	Bernesga Mb.	85.94	5.71	-0.80	5.74
Aralla 75	Bernesga Mb.	86.23	5.39	-0.40	5.43

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
Aralla 51	Bernesga Mb.	1.36	4.62	-43.88	0.88
Aralla 52	Bernesga Mb.	0.61	4.56	-45.37	0.85
Aralla 53	Bernesga Mb.	0.15	4.32	-51.03	0.75
Aralla 54	Bernesga Mb.	1.01	4.59	-44.30	0.88
Aralla 55	Bernesga Mb.	0.69	4.59	-42.28	0.88
Aralla 56	Bernesga Mb.	0.52	4.54	-42.93	0.88
Aralla 57	Bernesga Mb.	0.60	4.67	-41.15	0.87
Aralla 58	Bernesga Mb.	0.66	4.51	-45.51	0.87
Aralla 59	Bernesga Mb.	0.52	4.60	-43.30	0.86
Aralla 60	Bernesga Mb.	0.91	4.38	-49.70	0.81
Aralla 61	Bernesga Mb.	0.78	4.68	-42.79	0.87
Aralla 62	Bernesga Mb.	0.64	4.58	-45.47	0.86
Aralla 63	Bernesga Mb.	1.05	4.47	-47.64	0.81
Aralla 64	Bernesga Mb.	0.90	4.67	-44.14	0.87
Aralla 65	Bernesga Mb.	0.73	4.71	-42.11	0.87
Aralla 66	Bernesga Mb.	1.22	4.42	-48.17	0.82
Aralla 67	Bernesga Mb.	-0.64	4.51	-50.35	0.78
Aralla 68	Bernesga Mb.	-1.11	4.49	-52.46	0.77
Aralla 69	Bernesga Mb.	0.52	4.65	-42.32	0.87
Aralla 70	Bernesga Mb.	-0.06	4.53	-44.52	0.83
Aralla 71	Bernesga Mb.	0.64	4.62	-42.60	0.86
Aralla 72	Bernesga Mb.	0.88	4.62	-44.71	0.87
Aralla 73	Bernesga Mb.	0.84	4.70	-42.56	0.87
Aralla 74	Bernesga Mb.	0.56	4.69	-43.77	0.86
Aralla 75	Bernesga Mb.	0.98	4.65	-43.53	0.89

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
Aralla 51	Bernesga Mb.	3.34	0.39	4.00	4.00	1.00	< D.L.	9.00
Aralla 52	Bernesga Mb.	4.42	0.41	4.00	4.00	1.00	< D.L.	9.00
Aralla 53	Bernesga Mb.	8.29	0.53	4.00	4.00	4.00	< D.L.	12.00
Aralla 54	Bernesga Mb.	3.43	0.37	4.00	4.00	1.00	< D.L.	9.00
Aralla 55	Bernesga Mb.	3.32	0.39	4.00	4.00	1.00	< D.L.	9.00
Aralla 56	Bernesga Mb.	3.39	0.38	4.00	4.00	1.00	< D.L.	9.00
Aralla 57	Bernesga Mb.	3.38	0.39	4.00	4.00	1.00	< D.L.	9.00
Aralla 58	Bernesga Mb.	3.93	0.39	4.00	4.00	1.00	< D.L.	9.00
Aralla 59	Bernesga Mb.	3.91	0.40	4.00	4.00	1.00	< D.L.	9.00
Aralla 60	Bernesga Mb.	6.52	0.43	4.00	4.00	1.00	< D.L.	9.00
Aralla 61	Bernesga Mb.	3.66	0.40	4.00	4.00	1.00	< D.L.	9.00
Aralla 62	Bernesga Mb.	4.23	0.40	4.00	4.00	1.00	< D.L.	9.00
Aralla 63	Bernesga Mb.	6.13	0.45	4.00	4.00	1.00	< D.L.	9.00
Aralla 64	Bernesga Mb.	3.86	0.39	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 65	Bernesga Mb.	3.56	0.39	4.00	4.00	1.00	< D.L.	9.00
Aralla 66	Bernesga Mb.	5.60	0.41	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 67	Bernesga Mb.	7.74	0.51	4.00	4.00	1.00	< D.L.	9.00
Aralla 68	Bernesga Mb.	8.36	0.53	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 69	Bernesga Mb.	3.59	0.39	4.00	4.00	1.00	< D.L.	9.00
Aralla 70	Bernesga Mb.	4.87	0.45	4.00	4.00	4.00	< D.L.	12.00
Aralla 71	Bernesga Mb.	3.81	0.42	4.00	4.00	1.00	< D.L.	9.00
Aralla 72	Bernesga Mb.	3.83	0.39	4.00	4.00	1.00	< D.L.	9.00
Aralla 73	Bernesga Mb.	3.57	0.39	4.00	4.00	1.00	< D.L.	9.00
Aralla 74	Bernesga Mb.	4.20	0.40	4.00	4.00	1.00	< D.L.	9.00
Aralla 75	Bernesga Mb.	3.18	0.36	4.00	4.00	1.00	< D.L.	9.00

1.4 Aralla 76 - 100

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
Aralla 76	Bernesga Mb.	63.62	41.74	39.93	145.29	81.67
Aralla 77	Bernesga Mb.	73.34	49.26	41.43	164.04	90.69
Aralla 78	Bernesga Mb.	52.15	35.59	39.58	127.32	75.17
Aralla 79	Bernesga Mb.	62.18	47.30	40.07	149.55	87.37
Aralla 80	Bernesga Mb.	51.45	38.32	39.29	129.05	77.61
Aralla 81	Bernesga Mb.	54.37	46.85	39.66	140.88	86.51
Aralla 82	Bernesga Mb.	48.37	27.04	37.95	113.36	64.99
Aralla 83	Bernesga Mb.	51.51	20.47	37.36	109.34	57.83
Aralla 84	Bernesga Mb.	61.19	42.12	40.98	144.29	83.10
Aralla 85	Bernesga Mb.	78.30	48.94	43.83	171.06	92.76
Aralla 86	Bernesga Mb.	83.96	< D.L.	38.15	122.11	38.15
Aralla 87	Bernesga Mb.	86.88	42.85	40.60	170.33	83.45
Aralla 88	Bernesga Mb.	89.47	52.11	41.76	183.34	93.88
Aralla 89	Bernesga Mb.	74.24	30.76	42.37	147.37	73.13
Aralla 90	Bernesga Mb.	56.13	48.21	41.66	146.00	89.87
Aralla 91	Bernesga Mb.	53.25	45.58	43.67	142.49	89.24
Aralla 92	Bernesga Mb.	61.68	44.67	42.10	148.46	86.77
Aralla 93	Bernesga Mb.	64.25	35.42	40.22	139.88	75.64
Aralla 94	Bernesga Mb.	78.17	49.46	42.62	170.26	92.09
Aralla 95	Bernesga Mb.	63.09	48.78	42.79	154.66	91.57
Aralla 96	Bernesga Mb.	66.61	48.18	43.71	158.50	91.89
Aralla 97	Bernesga Mb.	64.22	42.89	42.18	149.30	85.08
Aralla 98	Bernesga Mb.	77.34	42.10	43.41	162.85	85.51
Aralla 99	Bernesga Mb.	49.00	47.20	40.50	136.71	87.70
Aralla 100	Bernesga Mb.	70.65	43.99	42.05	156.69	86.04

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
Aralla 76	Bernesga Mb.	76.08	65.73	60.04	201.86	125.78
Aralla 77	Bernesga Mb.	87.71	77.57	62.31	227.59	139.88
Aralla 78	Bernesga Mb.	62.36	56.05	59.51	177.93	115.57
Aralla 79	Bernesga Mb.	74.36	74.49	60.25	209.11	134.75
Aralla 80	Bernesga Mb.	61.52	60.35	59.08	180.95	119.43
Aralla 81	Bernesga Mb.	65.01	73.79	59.64	198.44	133.42
Aralla 82	Bernesga Mb.	57.84	42.59	57.06	157.49	99.65
Aralla 83	Bernesga Mb.	61.60	32.24	56.18	150.02	88.42
Aralla 84	Bernesga Mb.	73.17	66.33	61.63	201.13	127.96
Aralla 85	Bernesga Mb.	93.63	77.07	65.90	236.60	142.97
Aralla 86	Bernesga Mb.	100.40	< D.L.	57.37	157.77	57.37
Aralla 87	Bernesga Mb.	103.89	67.48	61.05	232.42	128.53
Aralla 88	Bernesga Mb.	106.99	82.07	62.80	251.86	144.87
Aralla 89	Bernesga Mb.	88.77	48.44	63.71	200.93	112.15
Aralla 90	Bernesga Mb.	67.12	75.92	62.65	205.69	138.57
Aralla 91	Bernesga Mb.	63.68	71.77	65.66	201.12	137.44
Aralla 92	Bernesga Mb.	73.76	70.35	63.32	207.42	133.66
Aralla 93	Bernesga Mb.	76.83	55.77	60.48	193.08	116.26
Aralla 94	Bernesga Mb.	93.48	77.89	64.10	235.47	141.99
Aralla 95	Bernesga Mb.	75.44	76.81	64.35	216.60	141.16
Aralla 96	Bernesga Mb.	79.65	75.88	65.73	221.26	141.61
Aralla 97	Bernesga Mb.	76.80	67.55	63.43	207.78	130.98
Aralla 98	Bernesga Mb.	92.48	66.29	65.28	224.06	131.58
Aralla 99	Bernesga Mb.	58.60	74.33	60.90	193.84	135.24
Aralla 100	Bernesga Mb.	84.48	69.28	63.23	216.99	132.51

Sample	Formation	U	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al2O3*5	10Al2O3
Aralla 76	Bernesga Mb.	9.51	95.10	190.20	4.03	3.24	4.34	34.43	5.54	146.77	293.54
Aralla 77	Bernesga Mb.	10.96	109.63	219.27	4.50	3.80	5.10	33.51	4.94	141.30	282.60
Aralla 78	Bernesga Mb.	7.80	77.95	155.90	3.12	2.45	3.29	33.64	6.60	143.07	286.13
Aralla 79	Bernesga Mb.	9.30	92.95	185.90	3.09	3.15	4.22	34.52	5.21	147.17	294.33
Aralla 80	Bernesga Mb.	7.69	76.90	153.80	2.66	2.40	3.21	36.24	6.04	156.22	312.45
Aralla 81	Bernesga Mb.	8.13	81.27	162.53	1.98	2.62	3.51	33.28	5.20	141.18	282.36
Aralla 82	Bernesga Mb.	7.23	72.30	144.60	3.68	2.15	2.89	33.60	6.08	143.80	287.60
Aralla 83	Bernesga Mb.	7.70	77.00	154.00	5.01	2.40	3.22	33.39	8.39	143.13	286.25
Aralla 84	Bernesga Mb.	9.15	91.47	182.93	3.62	3.09	4.14	34.73	5.65	147.67	295.34
Aralla 85	Bernesga Mb.	11.70	117.03	234.07	5.28	4.06	5.44	33.67	4.89	140.63	281.26
Aralla 86	Bernesga Mb.	12.55	125.50	251.00	12.55	4.34	5.82	34.22	11.24	146.82	293.64
Aralla 87	Bernesga Mb.	12.99	129.87	259.73	7.36	4.48	6.00	33.82	5.81	143.31	286.62
Aralla 88	Bernesga Mb.	13.37	133.73	267.47	6.53	4.59	6.15	34.93	4.76	148.20	296.39
Aralla 89	Bernesga Mb.	11.10	110.97	221.93	7.06	3.85	5.16	35.87	7.26	152.50	304.99
Aralla 90	Bernesga Mb.	8.39	83.90	167.80	2.06	2.74	3.68	34.36	5.40	145.37	290.74
Aralla 91	Bernesga Mb.	7.96	79.60	159.20	1.98	2.54	3.40	36.41	5.73	154.43	308.85
Aralla 92	Bernesga Mb.	9.22	92.20	184.40	3.36	3.12	4.18	32.92	5.32	137.92	275.83
Aralla 93	Bernesga Mb.	9.60	96.03	192.07	4.96	3.28	4.39	33.64	6.11	142.66	285.32
Aralla 94	Bernesga Mb.	11.69	116.85	233.70	5.19	4.06	5.44	36.00	5.25	153.01	306.02
Aralla 95	Bernesga Mb.	9.43	94.30	188.60	3.03	3.21	4.30	33.80	5.08	141.92	283.84
Aralla 96	Bernesga Mb.	9.96	99.57	199.13	3.63	3.42	4.59	36.06	5.07	152.67	305.34
Aralla 97	Bernesga Mb.	9.60	96.00	192.00	3.97	3.28	4.39	35.53	5.88	150.94	301.87
Aralla 98	Bernesga Mb.	11.56	115.60	231.20	6.04	4.01	5.38	35.48	5.55	149.95	299.90
Aralla 99	Bernesga Mb.	7.33	73.25	146.50	1.13	2.21	2.96	32.34	5.37	135.98	271.96
Aralla 100	Bernesga Mb.	10.56	105.60	211.20	4.79	3.66	4.90	34.32	5.56	144.98	289.96

Sample	Formation	15Al2O3	Al2O3/10	K2O*5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	200TiO2	300TiO2	K2O/Al2O3
Aralla 76	Bernesga Mb.	440.31	2.94	18.76	< D.L.	9.88	-7020.69	3.18	4.09	234.91	352.36	0.13
Aralla 77	Bernesga Mb.	423.90	2.83	19.47	< D.L.	9.52	-9502.81	2.79	3.59	240.30	360.45	0.14
Aralla 78	Bernesga Mb.	429.20	2.86	18.60	< D.L.	9.60	1602.95	3.95	5.08	236.95	355.43	0.13
Aralla 79	Bernesga Mb.	441.50	2.94	18.83	< D.L.	11.14	-10293.74	2.87	3.69	251.06	376.59	0.13
Aralla 80	Bernesga Mb.	468.67	3.12	18.46	< D.L.	10.14	-6187.05	3.52	4.52	246.11	369.16	0.12
Aralla 81	Bernesga Mb.	423.54	2.82	18.64	< D.L.	10.85	-8549.84	2.88	3.71	246.79	370.18	0.13
Aralla 82	Bernesga Mb.	431.40	2.88	17.83	< D.L.	< D.L.	4454.54	4.25	5.47	231.59	347.38	0.12
Aralla 83	Bernesga Mb.	429.38	2.86	17.56	< D.L.	9.92	13837.99	5.17	6.65	226.50	339.75	0.12
Aralla 84	Bernesga Mb.	443.01	2.95	19.26	< D.L.	9.92	-6528.63	3.25	4.19	238.12	357.18	0.13
Aralla 85	Bernesga Mb.	421.89	2.81	20.60	< D.L.	9.98	-9974.08	2.72	3.50	241.49	362.24	0.15
Aralla 86	Bernesga Mb.	440.46	2.94	17.93	0.39	< D.L.	39777.22	7.86	10.12	222.35	333.52	0.12
Aralla 87	Bernesga Mb.	429.92	2.87	19.08	< D.L.	10.14	-4405.76	3.35	4.31	242.09	363.13	0.13
Aralla 88	Bernesga Mb.	444.59	2.96	19.63	< D.L.	11.12	-13710.49	2.55	3.28	235.06	352.58	0.13
Aralla 89	Bernesga Mb.	457.49	3.05	19.91	< D.L.	10.85	2807.11	4.32	5.55	234.14	351.21	0.13
Aralla 90	Bernesga Mb.	436.11	2.91	19.58	0.38	10.70	-8208.74	3.03	3.89	238.32	357.48	0.13
Aralla 91	Bernesga Mb.	463.28	3.09	20.52	< D.L.	12.35	-9433.26	3.14	4.04	236.56	354.84	0.13
Aralla 92	Bernesga Mb.	413.75	2.76	19.79	< D.L.	9.68	-6045.99	3.05	3.92	238.91	358.36	0.14
Aralla 93	Bernesga Mb.	427.98	2.85	18.90	< D.L.	11.87	-3335.06	3.44	4.43	228.27	342.40	0.13
Aralla 94	Bernesga Mb.	459.03	3.06	20.03	< D.L.	12.09	-12248.19	2.82	3.63	244.08	366.12	0.13
Aralla 95	Bernesga Mb.	425.75	2.84	20.11	< D.L.	11.60	-10127.00	2.74	3.53	238.63	357.94	0.14
Aralla 96	Bernesga Mb.	458.01	3.05	20.54	< D.L.	11.35	-12890.81	2.75	3.54	238.95	358.42	0.13
Aralla 97	Bernesga Mb.	452.81	3.02	19.82	< D.L.	11.52	-6870.01	3.31	4.25	242.97	364.46	0.13
Aralla 98	Bernesga Mb.	449.85	3.00	20.40	< D.L.	12.78	-9793.17	2.99	3.85	238.92	358.38	0.14
Aralla 99	Bernesga Mb.	407.94	2.72	19.03	< D.L.	11.13	-6199.28	2.98	3.83	235.95	353.93	0.14
Aralla 100	Bernesga Mb.	434.94	2.90	19.76	< D.L.	12.34	-8131.21	3.02	3.89	234.28	351.42	0.14

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
Aralla 76	Bernesga Mb.	-0.89	0.03	0.66	0.26	0.35	2.84	-0.45	22.23
Aralla 77	Bernesga Mb.	-0.86	0.03	0.60	0.28	0.35	2.86	-0.46	20.78
Aralla 78	Bernesga Mb.	-0.89	0.03	0.75	0.26	0.35	2.84	-0.45	21.82
Aralla 79	Bernesga Mb.	-0.89	0.04	0.61	0.26	0.35	2.84	-0.45	22.23
Aralla 80	Bernesga Mb.	-0.93	0.03	0.70	0.24	0.35	2.83	-0.45	23.96
Aralla 81	Bernesga Mb.	-0.88	0.04	0.61	0.28	0.35	2.84	-0.45	21.50
Aralla 82	Bernesga Mb.	-0.91	< D.L.	0.78	0.26	0.36	2.81	-0.45	22.66
Aralla 83	Bernesga Mb.	-0.91	0.03	0.87	0.25	0.36	2.80	-0.45	22.84
Aralla 84	Bernesga Mb.	-0.88	0.03	0.67	0.26	0.35	2.86	-0.46	21.91
Aralla 85	Bernesga Mb.	-0.83	0.04	0.59	0.28	0.35	2.90	-0.46	19.78
Aralla 86	Bernesga Mb.	-0.91	< D.L.	1.05	0.21	0.36	2.81	-0.45	19.96
Aralla 87	Bernesga Mb.	-0.88	0.04	0.68	0.27	0.35	2.85	-0.46	21.42
Aralla 88	Bernesga Mb.	-0.88	0.04	0.56	0.27	0.35	2.87	-0.46	21.66
Aralla 89	Bernesga Mb.	-0.88	0.04	0.79	0.24	0.35	2.88	-0.46	22.04
Aralla 90	Bernesga Mb.	-0.87	0.04	0.64	0.27	0.35	2.87	-0.46	18.70
Aralla 91	Bernesga Mb.	-0.88	0.04	0.65	0.24	0.35	2.89	-0.46	21.78
Aralla 92	Bernesga Mb.	-0.84	0.04	0.64	0.27	0.35	2.87	-0.46	20.03
Aralla 93	Bernesga Mb.	-0.88	0.04	0.69	0.26	0.35	2.85	-0.45	21.48
Aralla 94	Bernesga Mb.	-0.88	0.04	0.61	0.26	0.35	2.88	-0.46	22.01
Aralla 95	Bernesga Mb.	-0.85	0.04	0.59	0.27	0.35	2.88	-0.46	20.35
Aralla 96	Bernesga Mb.	-0.87	0.04	0.59	0.25	0.35	2.90	-0.46	21.52
Aralla 97	Bernesga Mb.	-0.88	0.04	0.67	0.26	0.35	2.87	-0.46	21.89
Aralla 98	Bernesga Mb.	-0.87	0.04	0.63	0.25	0.35	2.89	-0.46	21.25
Aralla 99	Bernesga Mb.	-0.85	0.04	0.63	0.29	0.35	2.85	-0.45	20.37
Aralla 100	Bernesga Mb.	-0.87	0.04	0.64	0.26	0.35	2.87	-0.46	21.08

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
Aralla 76	Bernesga Mb.	1.32	5.07	5.54	1.83	0.26	0.55	0.16	42.24	0.01
Aralla 77	Bernesga Mb.	1.36	5.25	4.94	1.89	0.28	0.53	0.14	43.53	0.01
Aralla 78	Bernesga Mb.	1.31	5.03	6.60	1.83	0.26	0.55	0.20	41.79	0.01
Aralla 79	Bernesga Mb.	1.32	5.09	5.21	1.80	0.26	0.56	0.14	43.48	0.01
Aralla 80	Bernesga Mb.	1.30	5.00	6.04	1.73	0.24	0.58	0.16	40.79	0.00
Aralla 81	Bernesga Mb.	1.31	5.04	5.20	1.90	0.28	0.53	0.15	42.45	0.01
Aralla 82	Bernesga Mb.	1.27	4.84	6.08	1.81	0.26	0.55	0.21	39.87	0.00
Aralla 83	Bernesga Mb.	1.25	4.76	8.39	1.79	0.25	0.56	0.26	38.64	0.00
Aralla 84	Bernesga Mb.	1.35	5.20	5.65	1.83	0.26	0.55	0.16	42.17	0.01
Aralla 85	Bernesga Mb.	1.42	5.54	4.89	1.89	0.28	0.53	0.14	43.00	0.01
Aralla 86	Bernesga Mb.	1.47	5.06	11.24	1.63	0.21	0.61	0.38	37.51	0.00
Aralla 87	Bernesga Mb.	1.34	5.15	5.81	1.86	0.27	0.54	0.17	41.24	0.01
Aralla 88	Bernesga Mb.	1.37	5.29	4.76	1.85	0.27	0.54	0.12	45.77	0.01
Aralla 89	Bernesga Mb.	1.38	5.37	7.26	1.73	0.24	0.58	0.20	40.39	0.00
Aralla 90	Bernesga Mb.	1.55	5.47	5.40	1.85	0.27	0.54	0.15	41.42	0.01
Aralla 91	Bernesga Mb.	1.42	5.52	5.73	1.75	0.24	0.57	0.15	42.03	0.01
Aralla 92	Bernesga Mb.	1.38	5.33	5.32	1.88	0.27	0.53	0.16	41.85	0.01
Aralla 93	Bernesga Mb.	1.33	5.11	6.11	1.83	0.26	0.55	0.17	42.54	0.01
Aralla 94	Bernesga Mb.	1.39	5.40	5.25	1.82	0.26	0.55	0.13	43.17	0.01
Aralla 95	Bernesga Mb.	1.40	5.42	5.08	1.88	0.27	0.53	0.14	44.48	0.01
Aralla 96	Bernesga Mb.	1.42	5.53	5.07	1.79	0.25	0.56	0.13	44.09	0.01
Aralla 97	Bernesga Mb.	1.38	5.34	5.88	1.80	0.26	0.56	0.16	42.08	0.01
Aralla 98	Bernesga Mb.	1.41	5.49	5.55	1.79	0.25	0.56	0.14	43.01	0.01
Aralla 99	Bernesga Mb.	1.34	5.14	5.37	1.96	0.29	0.51	0.16	42.39	0.01
Aralla 100	Bernesga Mb.	1.38	5.33	5.56	1.81	0.26	0.55	0.15	44.18	0.01

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Ti Cal (ppm)	Zr/Sc	Cr/Th	Th/Sc
Aralla 76	Bernesga Mb.	24.99	0.06	352.05	< D.L.	200.08	0.27	0.89	1.38	50.15	< D.L.	5.48	7040.34	< D.L.	8.56	< D.L.
Aralla 77	Bernesga Mb.	23.52	0.06	347.54	< D.L.	188.26	0.24	0.80	1.28	< D.L.	< D.L.	6.46	7201.98	< D.L.	7.01	< D.L.
Aralla 78	Bernesga Mb.	24.15	0.06	351.62	< D.L.	189.99	0.32	0.79	1.37	46.57	< D.L.	4.67	7101.57	< D.L.	8.75	< D.L.
Aralla 79	Bernesga Mb.	23.45	0.06	376.81	< D.L.	195.58	0.31	0.81	1.23	< D.L.	< D.L.	6.21	7524.41	< D.L.	7.15	< D.L.
Aralla 80	Bernesga Mb.	25.39	0.06	342.38	< D.L.	193.94	0.31	0.87	1.36	< D.L.	< D.L.	5.03	7375.91	< D.L.	8.67	< D.L.
Aralla 81	Bernesga Mb.	22.88	0.05	328.67	< D.L.	205.37	0.32	0.87	1.35	57.03	< D.L.	6.15	7396.30	< D.L.	7.46	< D.L.
Aralla 82	Bernesga Mb.	24.84	0.06	353.44	0.93	176.05	0.31	0.75	1.57	< D.L.	8.34	3.55	6940.77	5.33	10.04	0.40
Aralla 83	Bernesga Mb.	25.28	0.06	354.24	0.73	187.23	0.38	0.80	1.51	< D.L.	< D.L.	2.69	6788.24	< D.L.	13.52	< D.L.
Aralla 84	Bernesga Mb.	24.81	0.05	328.85	< D.L.	198.40	0.31	0.81	1.36	< D.L.	< D.L.	5.53	7136.47	< D.L.	7.90	< D.L.
Aralla 85	Bernesga Mb.	23.29	0.06	330.04	< D.L.	178.55	0.21	0.76	1.20	< D.L.	9.14	6.42	7237.64	6.58	6.97	0.83
Aralla 86	Bernesga Mb.	26.41	0.06	350.85	0.70	208.43	0.45	0.81	1.66	< D.L.	< D.L.	< D.L.	6663.92	< D.L.	< D.L.	< D.L.
Aralla 87	Bernesga Mb.	23.68	0.05	320.79	0.82	206.58	0.37	0.84	1.29	< D.L.	10.87	5.62	7255.48	8.75	7.80	0.90
Aralla 88	Bernesga Mb.	25.22	0.05	316.15	< D.L.	188.72	0.30	0.72	1.08	< D.L.	11.48	6.84	7044.72	8.73	6.31	1.21
Aralla 89	Bernesga Mb.	26.05	0.06	331.91	0.55	191.79	0.38	0.69	1.33	< D.L.	< D.L.	4.04	7017.27	< D.L.	9.16	< D.L.
Aralla 90	Bernesga Mb.	24.40	0.05	326.42	< D.L.	197.26	0.32	0.80	1.29	< D.L.	7.94	6.33	7142.61	6.23	6.84	0.72
Aralla 91	Bernesga Mb.	26.11	0.06	329.66	< D.L.	212.02	0.41	0.75	1.17	< D.L.	7.72	5.98	7089.73	5.54	7.21	0.69
Aralla 92	Bernesga Mb.	23.09	0.05	329.10	< D.L.	178.72	0.26	0.77	1.20	42.09	10.38	5.86	7160.19	8.16	7.26	0.91
Aralla 93	Bernesga Mb.	25.00	0.05	287.56	0.36	251.80	0.66	0.82	1.12	< D.L.	< D.L.	4.65	6841.33	< D.L.	9.51	< D.L.
Aralla 94	Bernesga Mb.	25.08	0.05	320.05	< D.L.	184.12	0.29	0.75	1.11	< D.L.	7.30	6.49	7315.25	6.36	6.65	0.74
Aralla 95	Bernesga Mb.	23.79	0.06	329.66	< D.L.	190.33	0.34	0.70	1.09	< D.L.	9.29	6.40	7151.79	7.04	6.49	0.92
Aralla 96	Bernesga Mb.	25.56	0.06	337.66	< D.L.	202.75	0.34	0.74	1.11	< D.L.	< D.L.	6.32	7161.30	< D.L.	7.07	< D.L.
Aralla 97	Bernesga Mb.	24.85	0.06	342.76	0.73	203.70	0.35	0.78	1.29	57.76	9.37	5.63	7281.96	6.58	7.66	0.74
Aralla 98	Bernesga Mb.	25.10	0.05	313.18	0.48	242.52	0.53	0.77	1.14	< D.L.	< D.L.	5.52	7160.47	< D.L.	8.19	< D.L.
Aralla 99	Bernesga Mb.	23.05	0.05	312.41	0.48	209.28	0.36	0.80	1.39	< D.L.	11.85	6.19	7071.63	8.87	6.94	0.98
Aralla 100	Bernesga Mb.	24.75	0.06	341.98	0.19	267.35	0.64	0.76	1.21	< D.L.	10.95	5.77	7021.48	7.82	7.61	0.90

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
Aralla 76	Bernesga Mb.	0.89	1.12	0.02	7.09	1.01	2.20	< D.L.	0.64	1.56
Aralla 77	Bernesga Mb.	0.82	1.23	0.02	6.68	1.02	1.74	< D.L.	0.63	1.59
Aralla 78	Bernesga Mb.	0.92	1.09	0.02	7.07	1.16	2.32	< D.L.	0.58	1.73
Aralla 79	Bernesga Mb.	0.84	1.19	0.02	6.91	1.04	11.86	< D.L.	0.66	1.51
Aralla 80	Bernesga Mb.	0.99	1.01	0.02	6.91	1.14	2.30	< D.L.	0.64	1.57
Aralla 81	Bernesga Mb.	1.04	0.96	0.02	7.29	1.19	1.74	< D.L.	0.64	1.55
Aralla 82	Bernesga Mb.	1.01	0.99	0.02	7.28	1.34	2.61	< D.L.	0.48	2.09
Aralla 83	Bernesga Mb.	1.09	0.92	0.02	7.69	1.35	3.58	< D.L.	0.53	1.87
Aralla 84	Bernesga Mb.	0.97	1.03	0.02	7.29	1.21	2.19	< D.L.	0.59	1.68
Aralla 85	Bernesga Mb.	0.87	1.15	0.02	7.00	1.14	1.62	< D.L.	0.63	1.59
Aralla 86	Bernesga Mb.	0.99	1.01	0.02	6.98	1.22	4.90	< D.L.	0.49	2.06
Aralla 87	Bernesga Mb.	1.04	0.96	0.02	7.22	1.24	2.12	< D.L.	0.65	1.54
Aralla 88	Bernesga Mb.	0.82	1.22	0.02	6.63	1.14	1.49	< D.L.	0.67	1.50
Aralla 89	Bernesga Mb.	0.88	1.14	0.02	6.68	1.27	3.10	< D.L.	0.52	1.93
Aralla 90	Bernesga Mb.	1.01	0.99	0.02	7.48	1.26	2.19	< D.L.	0.62	1.61
Aralla 91	Bernesga Mb.	0.84	1.20	0.02	6.70	1.12	3.13	< D.L.	0.64	1.55
Aralla 92	Bernesga Mb.	0.95	1.06	0.02	7.21	1.23	2.03	< D.L.	0.64	1.56
Aralla 93	Bernesga Mb.	1.07	0.93	0.03	7.26	1.30	2.67	< D.L.	0.73	1.36
Aralla 94	Bernesga Mb.	0.96	1.04	0.02	7.29	1.29	1.41	< D.L.	0.68	1.48
Aralla 95	Bernesga Mb.	0.82	1.22	0.02	6.78	1.18	2.06	< D.L.	0.64	1.56
Aralla 96	Bernesga Mb.	0.81	1.24	0.02	6.88	1.09	2.07	< D.L.	0.67	1.49
Aralla 97	Bernesga Mb.	0.90	1.11	0.02	7.10	1.17	2.42	< D.L.	0.60	1.66
Aralla 98	Bernesga Mb.	0.84	1.20	0.02	6.41	1.08	1.91	1.09	0.68	1.47
Aralla 99	Bernesga Mb.	1.04	0.96	0.02	7.41	1.30	1.99	< D.L.	0.58	1.74
Aralla 100	Bernesga Mb.	0.86	1.16	0.02	7.35	1.14	2.17	< D.L.	0.62	1.60

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
Aralla 76	Bernesga Mb.	0.92	0.61	14.11	< D.L.	< D.L.	1.90	3.82	9.06
Aralla 77	Bernesga Mb.	0.72	0.73	14.46	< D.L.	2.24	1.67	3.50	9.09
Aralla 78	Bernesga Mb.	1.24	0.51	14.02	< D.L.	< D.L.	2.34	4.45	8.10
Aralla 79	Bernesga Mb.	0.80	0.60	12.88	< D.L.	< D.L.	2.58	4.00	8.55
Aralla 80	Bernesga Mb.	1.10	0.47	12.43	< D.L.	< D.L.	2.58	3.82	7.91
Aralla 81	Bernesga Mb.	0.82	0.54	14.31	< D.L.	3.42	2.09	4.53	9.21
Aralla 82	Bernesga Mb.	1.40	0.48	14.71	2.72	2.30	2.54	4.54	7.03
Aralla 83	Bernesga Mb.	1.83	0.51	13.49	3.44	< D.L.	2.53	5.16	7.20
Aralla 84	Bernesga Mb.	1.04	0.59	14.12	< D.L.	< D.L.	1.96	4.31	8.38
Aralla 85	Bernesga Mb.	0.68	0.79	14.32	< D.L.	2.30	1.18	2.98	9.02
Aralla 86	Bernesga Mb.	2.68	0.81	14.35	5.15	< D.L.	3.58	6.43	6.98
Aralla 87	Bernesga Mb.	0.92	0.86	13.37	2.50	< D.L.	2.06	4.95	8.67
Aralla 88	Bernesga Mb.	0.43	0.85	12.38	< D.L.	< D.L.	0.98	3.77	8.26
Aralla 89	Bernesga Mb.	1.24	0.69	13.28	3.13	< D.L.	1.73	5.01	6.87
Aralla 90	Bernesga Mb.	0.86	0.55	13.56	< D.L.	2.07	2.78	4.39	8.43
Aralla 91	Bernesga Mb.	0.81	0.49	12.30	< D.L.	2.81	0.99	5.06	7.91
Aralla 92	Bernesga Mb.	0.88	0.63	13.67	< D.L.	< D.L.	2.76	3.50	8.74
Aralla 93	Bernesga Mb.	1.01	0.64	11.97	6.63	1.64	2.41	7.90	8.78
Aralla 94	Bernesga Mb.	0.66	0.72	11.82	< D.L.	2.00	1.44	3.37	8.00
Aralla 95	Bernesga Mb.	0.55	0.63	12.92	< D.L.	2.81	1.12	4.37	8.30
Aralla 96	Bernesga Mb.	0.72	0.62	12.40	< D.L.	2.34	1.09	4.24	8.30
Aralla 97	Bernesga Mb.	0.85	0.60	13.45	2.62	2.01	1.92	4.65	8.10
Aralla 98	Bernesga Mb.	0.80	0.73	12.60	5.49	2.05	2.63	6.72	8.56
Aralla 99	Bernesga Mb.	0.86	0.51	15.56	3.43	2.41	1.65	5.57	8.97
Aralla 100	Bernesga Mb.	0.79	0.69	13.76	11.01	2.21	2.13	8.83	8.59

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
Aralla 76	Bernesga Mb.	0.28	12.03	28.33	22.43	9.13	0.79	19.36	0.15
Aralla 77	Bernesga Mb.	< D.L.	12.42	29.00	19.70	9.25	0.81	19.82	< D.L.
Aralla 78	Bernesga Mb.	0.30	12.30	28.99	23.85	9.44	0.76	19.81	0.16
Aralla 79	Bernesga Mb.	< D.L.	12.01	28.53	124.67	8.86	0.76	19.50	< D.L.
Aralla 80	Bernesga Mb.	< D.L.	11.46	27.01	20.97	9.00	0.77	18.46	< D.L.
Aralla 81	Bernesga Mb.	0.25	12.75	29.15	18.44	10.98	0.76	19.92	0.13
Aralla 82	Bernesga Mb.	< D.L.	12.26	28.67	24.37	9.40	0.76	19.59	< D.L.
Aralla 83	Bernesga Mb.	< D.L.	12.12	30.31	32.08	9.72	0.72	20.71	< D.L.
Aralla 84	Bernesga Mb.	< D.L.	12.07	28.36	22.72	10.12	0.77	19.38	< D.L.
Aralla 85	Bernesga Mb.	< D.L.	12.74	28.86	19.22	10.32	0.83	19.73	< D.L.
Aralla 86	Bernesga Mb.	< D.L.	11.79	30.18	42.37	8.53	0.69	20.63	< D.L.
Aralla 87	Bernesga Mb.	< D.L.	12.35	28.99	21.96	10.76	0.73	19.81	< D.L.
Aralla 88	Bernesga Mb.	< D.L.	11.91	27.58	17.04	9.41	0.77	18.85	< D.L.
Aralla 89	Bernesga Mb.	< D.L.	11.50	27.39	30.87	8.76	0.73	18.72	< D.L.
Aralla 90	Bernesga Mb.	< D.L.	12.34	28.83	23.09	10.64	0.76	19.70	< D.L.
Aralla 91	Bernesga Mb.	< D.L.	11.48	26.52	33.01	8.82	0.71	18.12	< D.L.
Aralla 92	Bernesga Mb.	0.32	12.75	30.24	23.00	10.74	0.80	20.67	0.17
Aralla 93	Bernesga Mb.	< D.L.	12.15	32.18	28.49	11.44	0.60	21.99	< D.L.
Aralla 94	Bernesga Mb.	< D.L.	11.57	26.60	15.06	10.29	0.78	18.18	< D.L.
Aralla 95	Bernesga Mb.	< D.L.	12.40	29.11	24.55	9.80	0.75	19.89	< D.L.
Aralla 96	Bernesga Mb.	< D.L.	11.46	27.31	23.20	9.03	0.75	18.67	< D.L.
Aralla 97	Bernesga Mb.	0.23	11.47	27.62	25.24	9.45	0.74	18.87	0.12
Aralla 98	Bernesga Mb.	< D.L.	11.57	28.17	21.10	9.24	0.65	19.25	< D.L.
Aralla 99	Bernesga Mb.	< D.L.	12.94	30.96	22.31	11.66	0.74	21.16	< D.L.
Aralla 100	Bernesga Mb.	< D.L.	11.88	29.42	24.69	9.83	0.61	20.11	< D.L.

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
Aralla 76	Bernesga Mb.	1.73	0.58	1.61	14.92	< D.L.	1.21	0.08	1.43	0.01	< D.L.	< D.L.
Aralla 77	Bernesga Mb.	1.77	0.57	1.66	12.62	0.33	1.02	0.01	1.08	0.01	< D.L.	< D.L.
Aralla 78	Bernesga Mb.	1.80	0.56	1.60	18.33	< D.L.	1.52	0.18	1.87	0.01	0.03	0.34
Aralla 79	Bernesga Mb.	2.00	0.50	1.61	14.85	< D.L.	1.09	0.04	1.24	0.01	< D.L.	< D.L.
Aralla 80	Bernesga Mb.	1.96	0.51	1.58	19.36	< D.L.	1.36	0.13	1.81	0.01	< D.L.	< D.L.
Aralla 81	Bernesga Mb.	2.27	0.44	1.69	20.19	0.16	1.11	0.04	1.23	0.01	< D.L.	< D.L.
Aralla 82	Bernesga Mb.	1.47	0.68	1.53	19.78	0.21	1.70	0.23	2.13	0.01	< D.L.	< D.L.
Aralla 83	Bernesga Mb.	1.05	0.96	1.54	19.13	< D.L.	2.11	0.32	2.78	0.01	< D.L.	< D.L.
Aralla 84	Bernesga Mb.	1.81	0.55	1.70	17.29	< D.L.	1.21	0.08	1.63	0.01	< D.L.	< D.L.
Aralla 85	Bernesga Mb.	1.65	0.61	1.74	13.12	0.34	0.95	-0.02	1.02	0.01	< D.L.	< D.L.
Aralla 86	Bernesga Mb.	< D.L.	< D.L.	1.46	10.57	< D.L.	3.14	0.50	4.16	0.01	< D.L.	< D.L.
Aralla 87	Bernesga Mb.	1.30	0.77	1.71	12.57	< D.L.	1.26	0.10	1.39	0.01	< D.L.	< D.L.
Aralla 88	Bernesga Mb.	1.53	0.65	1.75	11.04	< D.L.	0.93	-0.03	0.67	0.01	< D.L.	< D.L.
Aralla 89	Bernesga Mb.	1.09	0.92	1.63	12.74	< D.L.	1.55	0.19	2.00	0.01	< D.L.	< D.L.
Aralla 90	Bernesga Mb.	2.26	0.44	1.72	19.52	0.26	1.10	0.04	1.33	0.01	< D.L.	< D.L.
Aralla 91	Bernesga Mb.	2.25	0.44	1.69	18.11	0.17	1.10	0.04	1.33	0.01	0.18	1.79
Aralla 92	Bernesga Mb.	1.91	0.52	1.73	17.01	< D.L.	1.10	0.04	1.29	0.01	< D.L.	< D.L.
Aralla 93	Bernesga Mb.	1.45	0.69	1.82	17.99	0.39	1.30	0.11	1.53	0.01	0.52	5.24
Aralla 94	Bernesga Mb.	1.67	0.60	1.81	14.26	0.36	1.01	0.00	1.07	0.01	< D.L.	< D.L.
Aralla 95	Bernesga Mb.	2.04	0.49	1.75	15.61	0.22	0.98	-0.01	0.83	0.01	0.30	2.95
Aralla 96	Bernesga Mb.	1.91	0.52	1.77	14.65	0.26	0.96	-0.02	1.17	0.01	0.25	2.53
Aralla 97	Bernesga Mb.	1.76	0.57	1.73	15.72	0.30	1.19	0.08	1.36	0.01	0.24	2.43
Aralla 98	Bernesga Mb.	1.43	0.70	1.75	12.69	0.35	1.05	0.02	1.27	0.01	0.58	5.85
Aralla 99	Bernesga Mb.	2.54	0.39	1.77	22.90	0.21	1.12	0.05	1.24	0.01	0.47	4.72
Aralla 100	Bernesga Mb.	1.64	0.61	1.79	14.28	0.31	1.09	0.04	1.21	0.01	0.56	5.57

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	V (wt%)	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
Aralla 76	Bernesga Mb.	< D.L.	< D.L.	< D.L.	4.03	0.02	7.18	14.19	405869.00	888.70	-24.19
Aralla 77	Bernesga Mb.	< D.L.	< D.L.	< D.L.	4.50	0.02	7.34	13.84	398810.62	772.97	-24.12
Aralla 78	Bernesga Mb.	678.94	0.05	0.07	3.12	0.02	7.22	14.29	395706.31	1027.00	-20.99
Aralla 79	Bernesga Mb.	< D.L.	< D.L.	< D.L.	3.09	0.02	7.66	13.80	403325.17	1025.17	-25.25
Aralla 80	Bernesga Mb.	< D.L.	< D.L.	< D.L.	2.66	0.02	7.51	14.88	418536.64	1058.07	-25.35
Aralla 81	Bernesga Mb.	< D.L.	< D.L.	< D.L.	1.98	0.02	7.53	16.41	400624.63	990.10	-23.81
Aralla 82	Bernesga Mb.	< D.L.	< D.L.	< D.L.	3.68	0.02	7.05	14.30	395626.09	1077.60	-20.23
Aralla 83	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.01	0.02	6.90	14.73	390334.82	1165.20	-17.26
Aralla 84	Bernesga Mb.	< D.L.	< D.L.	< D.L.	3.62	0.02	7.27	15.81	408632.59	980.30	-24.17
Aralla 85	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.28	0.02	7.37	15.36	396823.55	618.10	-24.17
Aralla 86	Bernesga Mb.	< D.L.	< D.L.	< D.L.	12.55	0.02	6.77	13.26	379564.14	1555.73	-9.88
Aralla 87	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.36	0.02	7.39	16.33	401044.65	1062.57	-22.87
Aralla 88	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.53	0.02	7.17	14.76	413562.69	746.47	-26.45
Aralla 89	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.06	0.02	7.13	14.13	407934.59	1087.47	-22.04
Aralla 90	Bernesga Mb.	< D.L.	< D.L.	< D.L.	2.06	0.02	7.27	16.38	405495.90	1102.33	-24.34
Aralla 91	Bernesga Mb.	3589.39	0.27	0.36	1.98	0.02	7.22	14.42	416193.63	988.77	-26.07
Aralla 92	Bernesga Mb.	< D.L.	< D.L.	< D.L.	3.36	0.02	7.29	15.69	388534.19	914.43	-22.56
Aralla 93	Bernesga Mb.	10480.88	0.79	1.05	4.96	0.02	6.97	17.27	394657.79	1556.47	-22.44
Aralla 94	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.19	0.02	7.44	16.66	421924.69	779.30	-26.72
Aralla 95	Bernesga Mb.	5907.30	0.44	0.59	3.03	0.02	7.28	14.72	399246.96	825.47	-24.41
Aralla 96	Bernesga Mb.	5057.18	0.38	0.51	3.63	0.02	7.30	14.58	417341.26	861.50	-26.87
Aralla 97	Bernesga Mb.	4858.90	0.36	0.49	3.97	0.02	7.41	15.09	414019.47	1050.63	-24.77
Aralla 98	Bernesga Mb.	11698.83	0.88	1.17	6.04	0.02	7.30	14.66	409245.25	2462.27	-25.51
Aralla 99	Bernesga Mb.	9443.17	0.71	0.94	1.13	0.02	7.20	16.78	392917.17	1039.90	-22.31
Aralla 100	Bernesga Mb.	11149.19	0.84	1.11	4.79	0.02	7.15	15.08	398613.03	1681.77	-24.26

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
Aralla 76	Bernesga Mb.	-11.30	15.85	-2.79	0.80	95.10	95.70
Aralla 77	Bernesga Mb.	-11.27	15.26	-3.08	0.79	94.71	95.41
Aralla 78	Bernesga Mb.	-9.81	15.45	-1.51	0.87	95.00	95.62
Aralla 79	Bernesga Mb.	-11.80	15.89	-3.26	0.78	95.09	95.70
Aralla 80	Bernesga Mb.	-11.85	16.87	-2.79	0.81	95.48	95.99
Aralla 81	Bernesga Mb.	-11.13	15.25	-2.94	0.79	94.91	95.56
Aralla 82	Bernesga Mb.	-9.45	15.53	-1.11	0.89	95.20	95.77
Aralla 83	Bernesga Mb.	-8.06	15.46	0.24	1.03	95.25	95.80
Aralla 84	Bernesga Mb.	-11.29	15.95	-2.73	0.81	95.01	95.64
Aralla 85	Bernesga Mb.	-11.29	15.19	-3.14	0.78	94.41	95.19
Aralla 86	Bernesga Mb.	-4.61	15.86	3.90	6.47	94.60	95.23
Aralla 87	Bernesga Mb.	-10.69	15.48	-2.37	0.82	94.89	95.54
Aralla 88	Bernesga Mb.	-12.36	16.01	-3.76	0.77	94.95	95.59
Aralla 89	Bernesga Mb.	-10.30	16.47	-1.45	0.88	95.04	95.66
Aralla 90	Bernesga Mb.	-11.37	15.70	-2.94	0.79	94.18	94.92
Aralla 91	Bernesga Mb.	-12.18	16.68	-3.23	0.79	94.97	95.61
Aralla 92	Bernesga Mb.	-10.54	14.89	-2.54	0.81	94.49	95.24
Aralla 93	Bernesga Mb.	-10.49	15.41	-2.21	0.83	94.91	95.55
Aralla 94	Bernesga Mb.	-12.49	16.53	-3.61	0.78	95.03	95.65
Aralla 95	Bernesga Mb.	-11.41	15.33	-3.17	0.78	94.58	95.32
Aralla 96	Bernesga Mb.	-12.56	16.49	-3.70	0.77	94.90	95.56
Aralla 97	Bernesga Mb.	-11.57	16.30	-2.82	0.80	95.00	95.63
Aralla 98	Bernesga Mb.	-11.92	16.19	-3.22	0.79	94.83	95.51
Aralla 99	Bernesga Mb.	-10.43	14.69	-2.54	0.80	94.60	95.32
Aralla 100	Bernesga Mb.	-11.34	15.66	-2.93	0.79	94.79	95.47

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
Aralla 76	Bernesga Mb.	85.26	4.71	-0.63	4.75
Aralla 77	Bernesga Mb.	84.32	3.48	-0.29	3.51
Aralla 78	Bernesga Mb.	85.05	5.16	-0.97	5.19
Aralla 79	Bernesga Mb.	85.26	4.07	-0.60	4.11
Aralla 80	Bernesga Mb.	86.21	6.15	-0.71	6.19
Aralla 81	Bernesga Mb.	84.85	3.49	-0.72	3.52
Aralla 82	Bernesga Mb.	85.61	7.23	-0.22	7.26
Aralla 83	Bernesga Mb.	85.73	6.76	-1.79	6.79
Aralla 84	Bernesga Mb.	85.03	4.76	-0.49	4.79
Aralla 85	Bernesga Mb.	83.54	3.00	0.02	3.03
Aralla 86	Bernesga Mb.	85.31	11.70	-1.46	11.73
Aralla 87	Bernesga Mb.	84.76	4.31	-0.65	4.34
Aralla 88	Bernesga Mb.	84.85	3.83	-0.26	3.86
Aralla 89	Bernesga Mb.	85.04	6.26	-0.71	6.29
Aralla 90	Bernesga Mb.	84.16	4.16	-0.42	4.20
Aralla 91	Bernesga Mb.	84.83	4.84	-0.24	4.87
Aralla 92	Bernesga Mb.	83.79	3.27	-0.35	3.30
Aralla 93	Bernesga Mb.	84.82	4.23	-0.98	4.26
Aralla 94	Bernesga Mb.	85.01	4.40	-0.25	4.43
Aralla 95	Bernesga Mb.	83.97	3.07	-0.31	3.10
Aralla 96	Bernesga Mb.	84.67	4.32	0.00	4.35
Aralla 97	Bernesga Mb.	84.96	4.81	-0.46	4.84
Aralla 98	Bernesga Mb.	84.52	4.07	-0.33	4.10
Aralla 99	Bernesga Mb.	84.10	2.93	-0.76	2.96
Aralla 100	Bernesga Mb.	84.48	3.75	-0.57	3.78

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
Aralla 76	Bernesga Mb.	0.75	4.64	-43.56	0.86
Aralla 77	Bernesga Mb.	1.13	4.68	-41.99	0.87
Aralla 78	Bernesga Mb.	0.40	4.58	-44.73	0.83
Aralla 79	Bernesga Mb.	0.78	4.64	-42.18	0.88
Aralla 80	Bernesga Mb.	0.65	4.53	-45.49	0.86
Aralla 81	Bernesga Mb.	0.65	4.61	-41.92	0.87
Aralla 82	Bernesga Mb.	1.11	4.43	-46.22	0.82
Aralla 83	Bernesga Mb.	-0.48	4.51	-47.43	0.79
Aralla 84	Bernesga Mb.	0.92	4.61	-44.17	0.86
Aralla 85	Bernesga Mb.	1.50	4.74	-41.99	0.88
Aralla 86	Bernesga Mb.	-0.04	4.28	-55.42	0.72
Aralla 87	Bernesga Mb.	0.74	4.60	-43.60	0.86
Aralla 88	Bernesga Mb.	1.17	4.70	-42.67	0.89
Aralla 89	Bernesga Mb.	0.73	4.61	-47.39	0.83
Aralla 90	Bernesga Mb.	1.08	4.70	-43.43	0.87
Aralla 91	Bernesga Mb.	1.24	4.72	-44.88	0.87
Aralla 92	Bernesga Mb.	1.08	4.73	-41.88	0.86
Aralla 93	Bernesga Mb.	0.41	4.71	-43.17	0.85
Aralla 94	Bernesga Mb.	1.20	4.63	-44.23	0.88
Aralla 95	Bernesga Mb.	1.14	4.75	-41.97	0.88
Aralla 96	Bernesga Mb.	1.48	4.71	-43.91	0.88
Aralla 97	Bernesga Mb.	0.98	4.61	-44.86	0.86
Aralla 98	Bernesga Mb.	1.14	4.74	-43.65	0.87
Aralla 99	Bernesga Mb.	0.63	4.68	-41.68	0.86
Aralla 100	Bernesga Mb.	0.86	4.77	-42.59	0.87

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
Aralla 76	Bernesga Mb.	3.87	0.40	4.00	4.00	4.00	< D.L.	12.00
Aralla 77	Bernesga Mb.	3.32	0.41	4.00	4.00	1.00	< D.L.	9.00
Aralla 78	Bernesga Mb.	4.76	0.45	4.00	4.00	4.00	< D.L.	12.00
Aralla 79	Bernesga Mb.	3.26	0.39	4.00	4.00	1.00	< D.L.	9.00
Aralla 80	Bernesga Mb.	4.08	0.39	4.00	4.00	1.00	< D.L.	9.00
Aralla 81	Bernesga Mb.	3.34	0.41	4.00	4.00	4.00	< D.L.	12.00
Aralla 82	Bernesga Mb.	5.25	0.42	4.00	4.00	1.00	< D.L.	9.00
Aralla 83	Bernesga Mb.	6.53	0.50	4.00	4.00	1.00	< D.L.	9.00
Aralla 84	Bernesga Mb.	3.91	0.41	4.00	4.00	1.00	< D.L.	9.00
Aralla 85	Bernesga Mb.	3.23	0.42	4.00	4.00	1.00	< D.L.	9.00
Aralla 86	Bernesga Mb.	10.11	0.60	4.00	4.00	1.00	< D.L.	9.00
Aralla 87	Bernesga Mb.	3.96	0.43	4.00	4.00	1.00	< D.L.	9.00
Aralla 88	Bernesga Mb.	3.10	0.38	4.00	4.00	1.00	< D.L.	9.00
Aralla 89	Bernesga Mb.	5.27	0.45	4.00	4.00	1.00	< D.L.	9.00
Aralla 90	Bernesga Mb.	3.63	0.42	4.00	4.00	1.00	< D.L.	9.00
Aralla 91	Bernesga Mb.	3.80	0.40	4.00	4.00	1.00	< D.L.	9.00
Aralla 92	Bernesga Mb.	3.64	0.43	4.00	4.00	4.00	< D.L.	12.00
Aralla 93	Bernesga Mb.	4.31	0.44	4.00	4.00	1.00	< D.L.	9.00
Aralla 94	Bernesga Mb.	3.31	0.39	4.00	4.00	1.00	< D.L.	9.00
Aralla 95	Bernesga Mb.	3.29	0.41	4.00	4.00	1.00	< D.L.	9.00
Aralla 96	Bernesga Mb.	3.29	0.39	4.00	4.00	1.00	< D.L.	9.00
Aralla 97	Bernesga Mb.	3.89	0.41	4.00	4.00	4.00	< D.L.	12.00
Aralla 98	Bernesga Mb.	3.58	0.41	4.00	4.00	1.00	< D.L.	9.00
Aralla 99	Bernesga Mb.	3.61	0.43	4.00	4.00	1.00	< D.L.	9.00
Aralla 100	Bernesga Mb.	3.69	0.42	4.00	4.00	1.00	< D.L.	9.00

1.5 Aralla 101 - 125

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
Aralla 101	Bernesga Mb.	64.51	36.71	42.81	144.03	79.52
Aralla 102	Bernesga Mb.	63.32	43.91	43.34	150.57	87.24
Aralla 103	Bernesga Mb.	68.17	48.92	42.57	159.66	91.49
Aralla 104	Bernesga Mb.	68.33	42.82	43.26	154.42	86.09
Aralla 105	Bernesga Mb.	49.44	42.43	42.07	133.94	84.50
Aralla 106	Bernesga Mb.	59.01	< D.L.	42.25	101.25	42.25
Aralla 107	Bernesga Mb.	60.78	42.92	46.80	150.50	89.72
Aralla 108	Bernesga Mb.	67.40	46.84	46.96	161.20	93.80
Aralla 109	Bernesga Mb.	75.33	34.21	39.68	149.22	73.89
Aralla 110	Bernesga Mb.	79.41	48.23	48.28	175.92	96.51
Aralla 111	Bernesga Mb.	83.05	41.35	46.82	171.21	88.17
Aralla 112	Bernesga Mb.	84.25	49.94	47.07	181.26	97.01
Aralla 113	Bernesga Mb.	78.01	47.31	46.91	172.23	94.22
Aralla 114	Bernesga Mb.	102.45	46.65	43.50	192.60	90.15
Aralla 115	Bernesga Mb.	71.98	39.71	42.60	154.30	82.31
Aralla 116	Bernesga Mb.	87.93	48.86	43.73	180.52	92.59
Aralla 117	Bernesga Mb.	60.28	< D.L.	38.28	98.56	38.28
Aralla 118	Bernesga Mb.	66.53	14.48	37.01	118.02	51.48
Aralla 119	Bernesga Mb.	88.24	30.40	42.64	161.28	73.04
Aralla 120	Bernesga Mb.	78.41	35.64	44.76	158.81	80.41
Aralla 121	Bernesga Mb.	82.00	43.90	42.97	168.87	86.87
Aralla 122	Bernesga Mb.	65.50	37.08	39.83	142.40	76.91
Aralla 123	Bernesga Mb.	79.88	42.17	44.60	166.66	86.78
Aralla 124	Bernesga Mb.	66.97	28.58	41.03	136.57	69.60
Aralla 125	Bernesga Mb.	70.68	40.39	38.12	149.19	78.51

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
Aralla 101	Bernesga Mb.	77.15	57.81	64.37	199.33	122.18
Aralla 102	Bernesga Mb.	75.72	69.15	65.17	210.03	134.31
Aralla 103	Bernesga Mb.	81.52	77.04	64.01	222.57	141.05
Aralla 104	Bernesga Mb.	81.71	67.44	65.06	214.21	132.50
Aralla 105	Bernesga Mb.	59.12	66.81	63.27	189.20	130.08
Aralla 106	Bernesga Mb.	70.56	< D.L.	63.53	134.09	63.53
Aralla 107	Bernesga Mb.	72.68	67.59	70.38	210.65	137.97
Aralla 108	Bernesga Mb.	80.60	73.76	70.62	224.98	144.38
Aralla 109	Bernesga Mb.	90.08	53.87	59.67	203.62	113.54
Aralla 110	Bernesga Mb.	94.96	75.95	72.60	243.51	148.55
Aralla 111	Bernesga Mb.	99.31	65.12	70.40	234.83	135.52
Aralla 112	Bernesga Mb.	100.75	78.64	70.78	250.17	149.42
Aralla 113	Bernesga Mb.	93.28	74.51	70.54	238.33	145.05
Aralla 114	Bernesga Mb.	122.51	73.47	65.41	261.39	138.88
Aralla 115	Bernesga Mb.	86.08	62.53	64.07	212.68	126.60
Aralla 116	Bernesga Mb.	105.15	76.95	65.76	247.85	142.70
Aralla 117	Bernesga Mb.	72.08	< D.L.	57.57	129.65	57.57
Aralla 118	Bernesga Mb.	79.56	22.80	55.65	158.01	78.45
Aralla 119	Bernesga Mb.	105.52	47.87	64.12	217.51	111.99
Aralla 120	Bernesga Mb.	93.76	56.13	67.31	217.20	123.44
Aralla 121	Bernesga Mb.	98.05	69.13	64.62	231.81	133.76
Aralla 122	Bernesga Mb.	78.32	58.39	59.90	196.60	118.28
Aralla 123	Bernesga Mb.	95.52	66.41	67.07	229.01	133.49
Aralla 124	Bernesga Mb.	80.08	45.00	61.69	186.77	106.69
Aralla 125	Bernesga Mb.	84.52	63.60	57.33	205.45	120.93

Sample	Formation	U	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al2O3*5	10Al2O3
Aralla 101	Bernesga Mb.	9.64	96.43	192.87	4.83	3.30	4.42	36.10	6.79	153.39	306.78
Aralla 102	Bernesga Mb.	9.47	94.65	189.30	3.70	3.22	4.32	35.55	5.74	150.35	300.70
Aralla 103	Bernesga Mb.	10.19	101.90	203.80	3.77	3.51	4.71	34.77	5.56	146.91	293.81
Aralla 104	Bernesga Mb.	10.21	102.13	204.27	4.59	3.52	4.72	34.00	5.46	142.62	285.23
Aralla 105	Bernesga Mb.	7.39	73.90	147.80	1.82	2.24	3.00	34.95	6.02	148.11	296.23
Aralla 106	Bernesga Mb.	8.82	88.20	176.40	8.82	2.94	3.94	37.34	9.81	159.93	319.86
Aralla 107	Bernesga Mb.	9.09	90.85	181.70	3.45	3.06	4.10	37.70	6.14	158.99	317.97
Aralla 108	Bernesga Mb.	10.08	100.75	201.50	3.93	3.47	4.65	35.12	5.90	146.01	292.03
Aralla 109	Bernesga Mb.	11.26	112.60	225.20	6.77	3.91	5.24	31.69	5.79	133.22	266.44
Aralla 110	Bernesga Mb.	11.87	118.70	237.40	5.54	4.12	5.52	34.90	5.15	144.12	288.24
Aralla 111	Bernesga Mb.	12.41	124.13	248.27	6.99	4.30	5.76	34.72	5.82	144.09	288.18
Aralla 112	Bernesga Mb.	12.59	125.93	251.87	6.04	4.35	5.83	34.07	4.97	140.70	281.39
Aralla 113	Bernesga Mb.	11.66	116.60	233.20	5.45	4.05	5.42	34.44	5.24	142.66	285.33
Aralla 114	Bernesga Mb.	15.31	153.13	306.27	9.19	5.13	6.87	35.37	5.45	149.36	298.72
Aralla 115	Bernesga Mb.	10.76	107.60	215.20	5.55	3.73	5.00	35.21	6.03	149.08	298.15
Aralla 116	Bernesga Mb.	13.14	131.43	262.87	6.73	4.52	6.06	35.93	5.34	152.02	304.03
Aralla 117	Bernesga Mb.	9.01	90.10	180.20	9.01	3.03	4.06	35.91	10.06	155.19	310.38
Aralla 118	Bernesga Mb.	9.95	99.45	198.90	8.05	3.42	4.58	31.07	8.12	131.73	263.45
Aralla 119	Bernesga Mb.	13.19	131.90	263.80	9.20	4.54	6.08	36.14	7.15	153.72	307.44
Aralla 120	Bernesga Mb.	11.72	117.20	234.40	7.04	4.07	5.45	35.40	6.17	148.71	297.42
Aralla 121	Bernesga Mb.	12.26	122.57	245.13	6.50	4.25	5.69	36.64	6.04	156.01	312.02
Aralla 122	Bernesga Mb.	9.79	97.90	195.80	4.92	3.36	4.50	34.52	6.43	147.29	294.58
Aralla 123	Bernesga Mb.	11.94	119.40	238.80	6.41	4.14	5.55	36.59	5.94	154.79	309.59
Aralla 124	Bernesga Mb.	10.01	100.10	200.20	6.26	3.44	4.61	33.90	7.03	143.47	286.94
Aralla 125	Bernesga Mb.	10.57	105.65	211.30	5.27	3.66	4.90	32.75	5.90	139.47	278.94

Sample	Formation	15Al2O3	Al2O3/10	K2O*5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	200TiO2	300TiO2	K2O/Al2O3
Aralla 101	Bernesga Mb.	460.17	3.07	20.12	0.41	15.26	-3801.16	3.68	4.73	236.44	354.65	0.13
Aralla 102	Bernesga Mb.	451.05	3.01	20.37	< D.L.	12.18	-8152.21	3.16	4.07	238.17	357.25	0.14
Aralla 103	Bernesga Mb.	440.72	2.94	20.00	< D.L.	11.69	-8137.25	3.07	3.95	240.59	360.88	0.14
Aralla 104	Bernesga Mb.	427.85	2.85	20.33	< D.L.	11.81	-7800.17	2.99	3.85	237.74	356.61	0.14
Aralla 105	Bernesga Mb.	444.34	2.96	19.77	< D.L.	12.15	-5602.43	3.36	4.32	235.32	352.98	0.13
Aralla 106	Bernesga Mb.	479.79	3.20	19.85	0.87	18.56	13320.07	5.56	7.16	224.27	336.41	0.12
Aralla 107	Bernesga Mb.	476.96	3.18	21.99	< D.L.	12.90	-8121.80	3.40	4.37	243.83	365.75	0.14
Aralla 108	Bernesga Mb.	438.04	2.92	22.07	< D.L.	11.26	-5253.05	3.34	4.30	246.90	370.35	0.15
Aralla 109	Bernesga Mb.	399.67	2.66	18.65	< D.L.	10.50	-2121.64	3.31	4.26	229.57	344.36	0.14
Aralla 110	Bernesga Mb.	432.37	2.88	22.69	< D.L.	11.08	-9851.63	2.83	3.64	248.28	372.42	0.16
Aralla 111	Bernesga Mb.	432.26	2.88	22.00	< D.L.	11.16	-5256.33	3.29	4.23	243.68	365.52	0.15
Aralla 112	Bernesga Mb.	422.09	2.81	22.12	< D.L.	10.91	-10100.59	2.71	3.49	244.74	367.11	0.16
Aralla 113	Bernesga Mb.	427.99	2.85	22.04	< D.L.	11.40	-9103.96	2.86	3.69	246.60	369.90	0.15
Aralla 114	Bernesga Mb.	448.08	2.99	20.44	< D.L.	11.48	-9446.22	3.01	3.87	239.00	358.50	0.14
Aralla 115	Bernesga Mb.	447.23	2.98	20.02	< D.L.	12.22	-5805.30	3.36	4.33	237.98	356.97	0.13
Aralla 116	Bernesga Mb.	456.05	3.04	20.55	< D.L.	10.75	-10426.01	2.98	3.83	241.39	362.08	0.14
Aralla 117	Bernesga Mb.	465.58	3.10	17.99	< D.L.	12.24	20766.57	6.18	7.95	232.82	349.23	0.12
Aralla 118	Bernesga Mb.	395.18	2.63	17.39	< D.L.	< D.L.	21905.20	5.68	7.30	219.87	329.81	0.13
Aralla 119	Bernesga Mb.	461.16	3.07	20.04	< D.L.	12.27	767.49	4.14	5.33	228.23	342.34	0.13
Aralla 120	Bernesga Mb.	446.13	2.97	21.03	< D.L.	10.15	-3297.07	3.61	4.64	235.03	352.54	0.14
Aralla 121	Bernesga Mb.	468.03	3.12	20.19	< D.L.	13.46	-8458.89	3.28	4.22	247.22	370.83	0.13
Aralla 122	Bernesga Mb.	441.87	2.95	18.72	< D.L.	10.59	-1410.23	3.76	4.83	232.02	348.02	0.13
Aralla 123	Bernesga Mb.	464.38	3.10	20.96	< D.L.	11.96	-7755.90	3.32	4.27	240.75	361.13	0.14
Aralla 124	Bernesga Mb.	430.40	2.87	19.28	< D.L.	11.90	2900.19	4.09	5.26	228.64	342.96	0.13
Aralla 125	Bernesga Mb.	418.41	2.79	17.92	< D.L.	10.30	-2817.41	3.41	4.39	225.97	338.96	0.13

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
Aralla 101	Bernesga Mb.	-0.88	0.05	0.72	0.23	0.35	2.88	-0.46	19.16
Aralla 102	Bernesga Mb.	-0.87	0.04	0.66	0.25	0.35	2.89	-0.46	21.34
Aralla 103	Bernesga Mb.	-0.87	0.04	0.64	0.24	0.35	2.88	-0.46	21.15
Aralla 104	Bernesga Mb.	-0.85	0.04	0.63	0.27	0.35	2.89	-0.46	20.27
Aralla 105	Bernesga Mb.	-0.87	0.04	0.68	0.27	0.35	2.87	-0.46	21.52
Aralla 106	Bernesga Mb.	-0.91	0.06	0.90	0.20	0.35	2.88	-0.46	17.59
Aralla 107	Bernesga Mb.	-0.86	0.04	0.69	0.24	0.34	2.93	-0.47	21.21
Aralla 108	Bernesga Mb.	-0.82	0.04	0.68	0.26	0.34	2.94	-0.47	19.42
Aralla 109	Bernesga Mb.	-0.85	0.04	0.68	0.32	0.35	2.84	-0.45	20.28
Aralla 110	Bernesga Mb.	-0.80	0.04	0.61	0.27	0.34	2.95	-0.47	18.74
Aralla 111	Bernesga Mb.	-0.82	0.04	0.67	0.27	0.34	2.93	-0.47	19.21
Aralla 112	Bernesga Mb.	-0.80	0.04	0.59	0.28	0.34	2.94	-0.47	18.68
Aralla 113	Bernesga Mb.	-0.81	0.04	0.61	0.29	0.34	2.93	-0.47	18.99
Aralla 114	Bernesga Mb.	-0.86	0.04	0.63	0.28	0.35	2.89	-0.46	21.13
Aralla 115	Bernesga Mb.	-0.87	0.04	0.68	0.28	0.35	2.88	-0.46	21.45
Aralla 116	Bernesga Mb.	-0.87	0.04	0.63	0.26	0.35	2.90	-0.46	21.42
Aralla 117	Bernesga Mb.	-0.94	0.04	0.95	0.20	0.36	2.82	-0.45	24.29
Aralla 118	Bernesga Mb.	-0.88	< D.L.	0.91	0.29	0.36	2.79	-0.45	21.17
Aralla 119	Bernesga Mb.	-0.88	0.04	0.77	0.24	0.35	2.88	-0.46	22.10
Aralla 120	Bernesga Mb.	-0.85	0.03	0.71	0.26	0.34	2.91	-0.46	20.56
Aralla 121	Bernesga Mb.	-0.89	0.04	0.67	0.24	0.35	2.89	-0.46	22.29
Aralla 122	Bernesga Mb.	-0.90	0.04	0.73	0.24	0.35	2.84	-0.45	22.35
Aralla 123	Bernesga Mb.	-0.87	0.04	0.68	0.24	0.34	2.91	-0.46	21.47
Aralla 124	Bernesga Mb.	-0.87	0.04	0.77	0.24	0.35	2.86	-0.46	21.27
Aralla 125	Bernesga Mb.	-0.89	0.04	0.69	0.27	0.36	2.81	-0.45	21.90

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
Aralla 101	Bernesga Mb.	1.60	5.62	6.79	1.70	0.23	0.59	0.17	42.38	0.01
Aralla 102	Bernesga Mb.	1.41	5.48	5.74	1.78	0.25	0.56	0.15	43.41	0.01
Aralla 103	Bernesga Mb.	1.39	5.39	5.56	1.73	0.24	0.58	0.15	43.79	0.01
Aralla 104	Bernesga Mb.	1.41	5.47	5.46	1.86	0.27	0.54	0.15	43.17	0.01
Aralla 105	Bernesga Mb.	1.38	5.33	6.02	1.85	0.27	0.54	0.16	40.81	0.00
Aralla 106	Bernesga Mb.	1.82	5.79	9.81	1.60	0.20	0.63	0.25	39.31	0.00
Aralla 107	Bernesga Mb.	1.50	5.90	6.14	1.72	0.24	0.58	0.15	41.34	0.01
Aralla 108	Bernesga Mb.	1.50	5.92	5.90	1.81	0.26	0.55	0.16	40.88	0.00
Aralla 109	Bernesga Mb.	1.31	5.04	5.79	2.09	0.32	0.48	0.18	39.86	0.00
Aralla 110	Bernesga Mb.	1.54	6.08	5.15	1.87	0.27	0.54	0.14	42.08	0.01
Aralla 111	Bernesga Mb.	1.50	5.90	5.82	1.87	0.27	0.54	0.16	41.38	0.01
Aralla 112	Bernesga Mb.	1.51	5.93	4.97	1.93	0.28	0.52	0.14	42.52	0.01
Aralla 113	Bernesga Mb.	1.50	5.91	5.24	1.95	0.29	0.51	0.14	40.82	0.00
Aralla 114	Bernesga Mb.	1.41	5.50	5.45	1.89	0.28	0.53	0.14	39.86	0.00
Aralla 115	Bernesga Mb.	1.39	5.39	6.03	1.89	0.28	0.53	0.16	38.79	0.00
Aralla 116	Bernesga Mb.	1.42	5.53	5.34	1.83	0.26	0.55	0.14	40.94	0.00
Aralla 117	Bernesga Mb.	1.28	4.88	10.06	1.60	0.20	0.63	0.28	37.55	0.00
Aralla 118	Bernesga Mb.	1.24	4.72	8.12	1.97	0.29	0.51	0.31	35.64	0.00
Aralla 119	Bernesga Mb.	1.39	5.40	7.15	1.75	0.24	0.57	0.19	39.40	0.00
Aralla 120	Bernesga Mb.	1.45	5.65	6.17	1.80	0.26	0.56	0.17	39.98	0.00
Aralla 121	Bernesga Mb.	1.40	5.44	6.04	1.74	0.24	0.57	0.15	40.88	0.00
Aralla 122	Bernesga Mb.	1.32	5.06	6.43	1.75	0.24	0.57	0.18	39.05	0.00
Aralla 123	Bernesga Mb.	1.44	5.63	5.94	1.72	0.24	0.58	0.15	40.67	0.00
Aralla 124	Bernesga Mb.	1.35	5.20	7.03	1.72	0.24	0.58	0.20	41.31	0.01
Aralla 125	Bernesga Mb.	1.27	4.86	5.90	1.86	0.27	0.54	0.17	42.24	0.01

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Ti Cal (ppm)	Zr/Sc	Cr/Th	Th/Sc
Aralla 101	Bernesga Mb.	25.95	0.05	292.91	0.11	267.14	0.69	0.76	1.17	50.31	< D.L.	4.82	7086.06	< D.L.	8.98	< D.L.
Aralla 102	Bernesga Mb.	25.25	0.05	314.16	0.15	259.26	0.67	0.77	1.04	45.47	< D.L.	5.76	7137.97	< D.L.	7.86	< D.L.
Aralla 103	Bernesga Mb.	24.42	0.05	328.58	0.23	268.24	0.63	0.75	1.23	< D.L.	< D.L.	6.42	7210.52	< D.L.	6.82	< D.L.
Aralla 104	Bernesga Mb.	24.00	0.05	316.93	0.61	207.25	0.40	0.74	1.11	< D.L.	< D.L.	5.62	7125.15	< D.L.	7.67	< D.L.
Aralla 105	Bernesga Mb.	25.18	0.05	316.50	0.42	187.51	0.37	0.75	1.11	< D.L.	< D.L.	5.57	7052.60	< D.L.	7.25	< D.L.
Aralla 106	Bernesga Mb.	28.52	0.06	341.32	0.37	237.08	0.68	0.72	1.18	< D.L.	5.37	< D.L.	6721.53	3.71	< D.L.	< D.L.
Aralla 107	Bernesga Mb.	26.08	0.05	320.39	0.65	195.52	0.36	0.68	1.11	< D.L.	8.46	5.63	7307.80	6.33	7.27	0.71
Aralla 108	Bernesga Mb.	23.66	0.06	335.58	0.48	199.22	0.34	0.72	1.11	< D.L.	< D.L.	6.15	7399.79	< D.L.	7.08	< D.L.
Aralla 109	Bernesga Mb.	23.21	0.05	315.18	0.88	185.49	0.40	0.77	1.20	< D.L.	7.30	4.49	6880.40	8.14	8.46	0.55
Aralla 110	Bernesga Mb.	23.22	0.05	313.69	0.53	213.03	0.44	0.67	1.00	< D.L.	< D.L.	6.33	7441.02	< D.L.	6.78	< D.L.
Aralla 111	Bernesga Mb.	23.65	0.05	325.97	0.57	216.64	0.46	0.69	1.09	< D.L.	< D.L.	5.43	7303.20	< D.L.	7.77	< D.L.
Aralla 112	Bernesga Mb.	22.99	0.05	320.91	< D.L.	197.37	0.40	0.65	0.99	< D.L.	10.89	6.55	7335.05	9.26	6.27	1.16
Aralla 113	Bernesga Mb.	23.14	0.06	333.77	< D.L.	191.41	0.31	0.73	1.09	< D.L.	< D.L.	6.21	7390.69	< D.L.	7.02	< D.L.
Aralla 114	Bernesga Mb.	25.00	0.06	355.11	< D.L.	190.91	0.28	0.80	1.36	< D.L.	< D.L.	6.12	7162.91	< D.L.	7.08	< D.L.
Aralla 115	Bernesga Mb.	25.06	0.05	329.33	< D.L.	171.07	0.27	0.74	1.34	< D.L.	8.53	5.21	7132.37	7.13	7.30	0.64
Aralla 116	Bernesga Mb.	25.19	0.06	349.11	< D.L.	184.65	0.27	0.75	1.28	< D.L.	< D.L.	6.41	7234.52	< D.L.	6.57	< D.L.
Aralla 117	Bernesga Mb.	26.66	0.07	392.14	0.60	205.59	0.48	0.85	1.39	< D.L.	6.91	< D.L.	6977.80	5.18	< D.L.	< D.L.
Aralla 118	Bernesga Mb.	23.96	0.06	362.01	0.43	169.30	0.48	0.70	1.40	< D.L.	< D.L.	1.90	6589.63	< D.L.	15.16	< D.L.
Aralla 119	Bernesga Mb.	26.94	0.06	351.81	0.68	187.83	0.45	0.69	1.12	< D.L.	< D.L.	3.99	6840.11	< D.L.	9.11	< D.L.
Aralla 120	Bernesga Mb.	25.31	0.06	334.68	0.78	203.06	0.41	0.74	1.12	< D.L.	< D.L.	4.68	7043.83	< D.L.	8.92	< D.L.
Aralla 121	Bernesga Mb.	25.24	0.06	365.13	0.63	200.48	0.36	0.81	1.12	< D.L.	< D.L.	5.76	7409.28	< D.L.	7.75	< D.L.
Aralla 122	Bernesga Mb.	25.39	0.06	344.54	0.74	187.54	0.35	0.84	1.28	< D.L.	< D.L.	4.87	6953.61	< D.L.	8.39	< D.L.
Aralla 123	Bernesga Mb.	25.72	0.06	337.23	0.66	193.59	0.32	0.76	1.19	< D.L.	< D.L.	5.53	7215.41	< D.L.	7.78	< D.L.
Aralla 124	Bernesga Mb.	25.10	0.06	357.38	0.50	198.32	0.42	0.72	1.23	< D.L.	< D.L.	3.75	6852.34	< D.L.	10.23	< D.L.
Aralla 125	Bernesga Mb.	24.69	0.06	356.98	0.52	191.38	0.33	0.81	1.36	< D.L.	< D.L.	5.30	6772.43	< D.L.	7.75	< D.L.

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
Aralla 101	Bernesga Mb.	0.81	1.24	0.02	5.69	1.06	2.62	1.04	0.65	1.53
Aralla 102	Bernesga Mb.	0.84	1.18	0.02	6.57	1.10	2.25	< D.L.	0.74	1.35
Aralla 103	Bernesga Mb.	0.84	1.20	0.02	6.67	1.11	1.97	< D.L.	0.61	1.64
Aralla 104	Bernesga Mb.	0.86	1.16	0.02	6.73	1.17	2.04	< D.L.	0.66	1.50
Aralla 105	Bernesga Mb.	1.01	0.99	0.02	7.30	1.34	2.28	0.69	0.68	1.47
Aralla 106	Bernesga Mb.	0.82	1.23	0.02	6.46	1.14	3.91	< D.L.	0.61	1.65
Aralla 107	Bernesga Mb.	0.83	1.20	0.02	6.64	1.23	2.16	< D.L.	0.61	1.65
Aralla 108	Bernesga Mb.	0.86	1.17	0.02	7.01	1.18	2.08	< D.L.	0.65	1.53
Aralla 109	Bernesga Mb.	1.33	0.75	0.03	9.08	1.74	2.21	< D.L.	0.64	1.56
Aralla 110	Bernesga Mb.	0.86	1.17	0.02	6.90	1.27	2.01	< D.L.	0.67	1.49
Aralla 111	Bernesga Mb.	0.89	1.13	0.02	7.20	1.28	2.32	< D.L.	0.64	1.56
Aralla 112	Bernesga Mb.	0.84	1.19	0.02	6.90	1.28	1.90	< D.L.	0.66	1.50
Aralla 113	Bernesga Mb.	0.91	1.10	0.02	7.38	1.25	1.86	< D.L.	0.67	1.50
Aralla 114	Bernesga Mb.	1.00	1.00	0.02	8.06	1.25	1.82	< D.L.	0.59	1.70
Aralla 115	Bernesga Mb.	1.12	0.89	0.02	8.04	1.53	2.34	< D.L.	0.55	1.82
Aralla 116	Bernesga Mb.	0.95	1.05	0.02	7.71	1.27	1.99	< D.L.	0.59	1.71
Aralla 117	Bernesga Mb.	1.04	0.96	0.02	7.89	1.23	4.04	< D.L.	0.61	1.64
Aralla 118	Bernesga Mb.	1.59	0.63	0.03	10.81	2.28	4.23	< D.L.	0.50	2.00
Aralla 119	Bernesga Mb.	0.99	1.01	0.02	8.01	1.43	2.91	< D.L.	0.62	1.62
Aralla 120	Bernesga Mb.	0.94	1.06	0.02	7.52	1.27	2.47	< D.L.	0.66	1.51
Aralla 121	Bernesga Mb.	0.95	1.05	0.02	7.77	1.18	6.39	< D.L.	0.73	1.38
Aralla 122	Bernesga Mb.	1.44	0.70	0.03	10.42	1.72	2.19	< D.L.	0.65	1.53
Aralla 123	Bernesga Mb.	0.88	1.14	0.02	7.00	1.16	1.93	< D.L.	0.64	1.56
Aralla 124	Bernesga Mb.	0.88	1.13	0.02	7.33	1.22	2.53	< D.L.	0.59	1.70
Aralla 125	Bernesga Mb.	0.95	1.05	0.02	7.58	1.17	2.14	< D.L.	0.60	1.67

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
Aralla 101	Bernesga Mb.	1.15	0.59	12.27	18.01	< D.L.	2.06	8.46	8.00
Aralla 102	Bernesga Mb.	0.83	0.59	11.54	15.30	1.97	2.32	7.75	8.54
Aralla 103	Bernesga Mb.	0.73	0.66	13.90	8.88	1.93	2.02	8.80	8.45
Aralla 104	Bernesga Mb.	0.80	0.68	12.89	3.67	2.33	2.23	5.16	8.57
Aralla 105	Bernesga Mb.	1.01	0.47	11.38	4.96	< D.L.	2.08	4.24	7.72
Aralla 106	Bernesga Mb.	1.57	0.52	10.88	4.71	< D.L.	1.74	7.40	6.61
Aralla 107	Bernesga Mb.	0.85	0.54	12.05	2.58	< D.L.	1.68	4.31	7.30
Aralla 108	Bernesga Mb.	0.87	0.65	12.95	3.16	< D.L.	1.52	4.44	8.45
Aralla 109	Bernesga Mb.	1.12	0.80	12.60	2.78	< D.L.	2.44	5.08	8.08
Aralla 110	Bernesga Mb.	0.62	0.78	12.53	3.93	2.85	2.10	5.53	8.44
Aralla 111	Bernesga Mb.	0.87	0.81	12.96	4.11	2.60	2.32	5.91	8.29
Aralla 112	Bernesga Mb.	0.47	0.85	12.44	< D.L.	2.52	1.61	4.98	8.27
Aralla 113	Bernesga Mb.	0.65	0.77	13.00	< D.L.	2.14	1.46	4.02	8.66
Aralla 114	Bernesga Mb.	0.85	0.97	13.97	< D.L.	< D.L.	1.39	3.85	8.22
Aralla 115	Bernesga Mb.	1.16	0.68	13.20	< D.L.	< D.L.	2.20	3.60	7.24
Aralla 116	Bernesga Mb.	0.95	0.82	13.38	< D.L.	< D.L.	1.40	3.63	7.85
Aralla 117	Bernesga Mb.	1.97	0.55	11.42	4.21	< D.L.	2.52	5.53	6.98
Aralla 118	Bernesga Mb.	2.10	0.71	12.42	4.91	< D.L.	2.12	5.94	6.20
Aralla 119	Bernesga Mb.	1.22	0.81	10.87	2.69	< D.L.	1.82	4.85	6.70
Aralla 120	Bernesga Mb.	1.18	0.74	11.98	2.69	< D.L.	2.08	4.95	7.95
Aralla 121	Bernesga Mb.	0.95	0.74	11.15	2.33	< D.L.	1.46	4.03	8.11
Aralla 122	Bernesga Mb.	1.32	0.63	12.01	2.80	< D.L.	2.08	4.17	7.86
Aralla 123	Bernesga Mb.	0.94	0.73	12.34	2.77	< D.L.	1.84	3.93	7.89
Aralla 124	Bernesga Mb.	1.30	0.66	12.91	3.97	< D.L.	1.99	5.48	7.58
Aralla 125	Bernesga Mb.	0.99	0.72	13.96	3.86	< D.L.	2.02	4.61	8.35

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
Aralla 101	Bernesga Mb.	0.24	11.17	31.84	27.50	8.48	0.59	21.76	0.13
Aralla 102	Bernesga Mb.	0.25	11.47	28.65	24.96	9.39	0.60	19.58	0.13
Aralla 103	Bernesga Mb.	< D.L.	11.74	28.62	22.23	9.41	0.61	19.56	< D.L.
Aralla 104	Bernesga Mb.	< D.L.	12.13	29.19	23.74	10.02	0.71	19.95	< D.L.
Aralla 105	Bernesga Mb.	< D.L.	11.57	29.24	23.47	10.37	0.73	19.98	< D.L.
Aralla 106	Bernesga Mb.	< D.L.	10.74	42.05	36.09	7.52	0.60	28.73	< D.L.
Aralla 107	Bernesga Mb.	< D.L.	10.94	26.21	23.29	9.01	0.74	17.91	< D.L.
Aralla 108	Bernesga Mb.	< D.L.	11.95	28.84	24.23	10.00	0.74	19.71	< D.L.
Aralla 109	Bernesga Mb.	< D.L.	12.73	31.31	23.33	14.06	0.71	21.40	< D.L.
Aralla 110	Bernesga Mb.	< D.L.	12.10	29.34	25.11	10.73	0.69	20.05	< D.L.
Aralla 111	Bernesga Mb.	< D.L.	11.99	28.98	27.65	10.58	0.69	19.80	< D.L.
Aralla 112	Bernesga Mb.	< D.L.	12.31	29.44	23.97	10.58	0.71	20.12	< D.L.
Aralla 113	Bernesga Mb.	< D.L.	12.16	29.23	22.12	10.82	0.76	19.98	< D.L.
Aralla 114	Bernesga Mb.	< D.L.	11.53	27.63	18.76	10.28	0.78	18.88	< D.L.
Aralla 115	Bernesga Mb.	< D.L.	11.47	28.52	22.99	11.04	0.79	19.49	< D.L.
Aralla 116	Bernesga Mb.	< D.L.	11.26	26.88	20.86	9.93	0.79	18.37	< D.L.
Aralla 117	Bernesga Mb.	< D.L.	10.87	27.74	33.19	8.55	0.67	18.96	< D.L.
Aralla 118	Bernesga Mb.	< D.L.	12.48	29.60	37.62	14.11	0.68	20.23	< D.L.
Aralla 119	Bernesga Mb.	< D.L.	10.93	27.21	28.28	9.57	0.69	18.60	< D.L.
Aralla 120	Bernesga Mb.	< D.L.	11.45	27.86	26.37	10.06	0.71	19.04	< D.L.
Aralla 121	Bernesga Mb.	< D.L.	11.01	26.78	63.92	9.55	0.73	18.30	< D.L.
Aralla 122	Bernesga Mb.	< D.L.	11.45	27.72	20.54	13.49	0.74	18.94	< D.L.
Aralla 123	Bernesga Mb.	< D.L.	11.04	27.23	20.09	9.15	0.76	18.61	< D.L.
Aralla 124	Bernesga Mb.	< D.L.	11.77	36.07	26.58	9.25	0.70	24.65	< D.L.
Aralla 125	Bernesga Mb.	< D.L.	12.10	31.78	21.97	9.74	0.75	21.72	< D.L.

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
Aralla 101	Bernesga Mb.	1.50	0.67	1.70	14.27	< D.L.	1.31	0.12	1.87	0.01	0.61	6.15
Aralla 102	Bernesga Mb.	1.83	0.55	1.79	15.78	0.30	1.11	0.05	1.32	0.01	0.53	5.32
Aralla 103	Bernesga Mb.	1.89	0.53	1.76	14.36	0.34	1.10	0.04	1.14	0.01	0.55	5.49
Aralla 104	Bernesga Mb.	1.65	0.61	1.78	14.82	0.29	1.05	0.02	1.21	0.01	0.26	2.56
Aralla 105	Bernesga Mb.	2.26	0.44	1.79	22.00	< D.L.	1.21	0.08	1.59	0.01	0.05	0.49
Aralla 106	Bernesga Mb.	< D.L.	< D.L.	1.56	14.43	< D.L.	2.00	0.30	2.66	0.01	0.40	4.01
Aralla 107	Bernesga Mb.	1.86	0.54	1.81	16.68	< D.L.	1.10	0.04	1.44	0.01	< D.L.	< D.L.
Aralla 108	Bernesga Mb.	1.83	0.55	1.81	15.34	< D.L.	1.08	0.03	1.35	0.01	< D.L.	< D.L.
Aralla 109	Bernesga Mb.	1.20	0.84	1.93	17.61	< D.L.	1.27	0.10	1.58	0.01	< D.L.	< D.L.
Aralla 110	Bernesga Mb.	1.60	0.63	1.92	13.79	0.27	0.89	-0.05	0.95	0.01	0.40	3.99
Aralla 111	Bernesga Mb.	1.31	0.76	1.88	13.00	0.31	1.07	0.03	1.33	0.01	0.30	2.98
Aralla 112	Bernesga Mb.	1.56	0.64	1.89	12.52	0.34	0.88	-0.06	0.71	0.01	0.26	2.57
Aralla 113	Bernesga Mb.	1.60	0.63	1.87	14.02	0.36	0.93	-0.03	0.98	0.01	< D.L.	< D.L.
Aralla 114	Bernesga Mb.	1.20	0.83	1.79	10.62	< D.L.	1.05	0.02	1.34	0.01	< D.L.	< D.L.
Aralla 115	Bernesga Mb.	1.45	0.69	1.82	16.19	< D.L.	1.20	0.08	1.83	0.01	< D.L.	< D.L.
Aralla 116	Bernesga Mb.	1.46	0.68	1.81	12.16	< D.L.	1.04	0.02	1.53	0.01	< D.L.	< D.L.
Aralla 117	Bernesga Mb.	< D.L.	< D.L.	1.54	15.59	< D.L.	2.46	0.39	3.24	0.01	< D.L.	< D.L.
Aralla 118	Bernesga Mb.	0.57	1.74	1.84	19.78	< D.L.	2.33	0.37	2.93	0.01	0.03	0.29
Aralla 119	Bernesga Mb.	0.91	1.10	1.76	11.81	< D.L.	1.48	0.17	1.98	0.01	< D.L.	< D.L.
Aralla 120	Bernesga Mb.	1.20	0.84	1.81	13.51	< D.L.	1.23	0.09	1.86	0.01	< D.L.	< D.L.
Aralla 121	Bernesga Mb.	1.41	0.71	1.78	12.86	< D.L.	1.16	0.07	1.56	0.01	0.03	0.30
Aralla 122	Bernesga Mb.	1.49	0.67	2.00	21.48	< D.L.	1.43	0.16	2.06	0.01	< D.L.	< D.L.
Aralla 123	Bernesga Mb.	1.39	0.72	1.77	12.55	< D.L.	1.13	0.05	1.55	0.01	< D.L.	< D.L.
Aralla 124	Bernesga Mb.	1.12	0.89	1.68	14.03	< D.L.	1.52	0.18	1.98	0.01	< D.L.	< D.L.
Aralla 125	Bernesga Mb.	1.51	0.66	1.65	13.61	< D.L.	1.36	0.13	1.46	0.01	< D.L.	< D.L.

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	V (wt%)	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
Aralla 101	Bernesga Mb.	12296.87	0.92	1.23	4.83	0.02	7.22	13.76	405913.57	3032.90	-24.20
Aralla 102	Bernesga Mb.	10630.42	0.80	1.06	3.70	0.02	7.27	14.94	409923.72	1603.43	-25.07
Aralla 103	Bernesga Mb.	10977.79	0.82	1.10	3.77	0.02	7.34	14.64	392941.54	1681.57	-24.55
Aralla 104	Bernesga Mb.	5113.72	0.38	0.51	4.59	0.02	7.25	15.13	399228.51	1115.00	-23.80
Aralla 105	Bernesga Mb.	980.40	0.07	0.10	1.82	0.02	7.17	16.26	412786.34	1951.93	-23.95
Aralla 106	Bernesga Mb.	8018.30	0.60	0.80	8.82	0.02	6.83	12.73	408246.63	1546.37	-19.94
Aralla 107	Bernesga Mb.	< D.L.	< D.L.	< D.L.	3.45	0.02	7.43	15.15	424242.52	1009.00	-26.36
Aralla 108	Bernesga Mb.	< D.L.	< D.L.	< D.L.	3.93	0.02	7.53	15.45	401972.53	921.13	-23.53
Aralla 109	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.77	0.02	6.99	19.82	400786.66	1059.67	-20.65
Aralla 110	Bernesga Mb.	7988.15	0.60	0.80	5.54	0.02	7.57	16.36	404381.13	1163.47	-24.65
Aralla 111	Bernesga Mb.	5956.88	0.45	0.60	6.99	0.02	7.43	16.14	403954.77	1256.27	-23.24
Aralla 112	Bernesga Mb.	5136.07	0.39	0.51	6.04	0.02	7.46	15.76	402391.35	981.00	-24.22
Aralla 113	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.45	0.02	7.52	16.35	410597.44	827.33	-24.21
Aralla 114	Bernesga Mb.	< D.L.	< D.L.	< D.L.	9.19	0.02	7.29	16.26	422618.93	829.57	-25.32
Aralla 115	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.55	0.02	7.25	17.42	420892.02	915.43	-24.16
Aralla 116	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.73	0.02	7.36	15.98	421664.15	809.23	-26.02
Aralla 117	Bernesga Mb.	< D.L.	< D.L.	< D.L.	9.01	0.02	7.09	14.05	396296.29	1323.50	-16.95
Aralla 118	Bernesga Mb.	579.98	0.04	0.06	8.05	0.02	6.68	19.68	381660.33	1124.20	-13.08
Aralla 119	Bernesga Mb.	< D.L.	< D.L.	< D.L.	9.20	0.02	6.95	15.57	414301.22	1084.90	-22.85
Aralla 120	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.04	0.02	7.17	15.84	407670.70	1107.57	-23.34
Aralla 121	Bernesga Mb.	594.50	0.04	0.06	6.50	0.02	7.54	15.76	419575.19	906.73	-26.01
Aralla 122	Bernesga Mb.	< D.L.	< D.L.	< D.L.	4.92	0.02	7.08	21.03	396837.90	974.73	-22.55
Aralla 123	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.41	0.02	7.34	14.99	412769.82	944.17	-25.62
Aralla 124	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.26	0.02	6.97	14.05	382868.29	1134.87	-20.66
Aralla 125	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.27	0.02	6.90	14.38	390107.61	979.67	-21.80

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
Aralla 101	Bernesga Mb.	-11.31	16.57	-2.41	0.82	94.33	95.04
Aralla 102	Bernesga Mb.	-11.72	16.24	-2.99	0.80	94.86	95.52
Aralla 103	Bernesga Mb.	-11.47	15.87	-2.95	0.80	94.81	95.49
Aralla 104	Bernesga Mb.	-11.12	15.40	-2.85	0.80	94.56	95.30
Aralla 105	Bernesga Mb.	-11.19	16.00	-2.60	0.81	94.91	95.56
Aralla 106	Bernesga Mb.	-9.32	17.27	-0.04	1.00	93.91	94.62
Aralla 107	Bernesga Mb.	-12.32	17.17	-3.10	0.80	94.81	95.50
Aralla 108	Bernesga Mb.	-11.00	15.77	-2.53	0.81	94.28	95.10
Aralla 109	Bernesga Mb.	-9.65	14.39	-1.92	0.83	94.58	95.30
Aralla 110	Bernesga Mb.	-11.52	15.57	-3.16	0.78	94.04	94.93
Aralla 111	Bernesga Mb.	-10.86	15.56	-2.50	0.81	94.21	95.05
Aralla 112	Bernesga Mb.	-11.32	15.20	-3.16	0.78	94.03	94.92
Aralla 113	Bernesga Mb.	-11.31	15.41	-3.04	0.79	94.14	95.00
Aralla 114	Bernesga Mb.	-11.83	16.13	-3.17	0.79	94.80	95.48
Aralla 115	Bernesga Mb.	-11.29	16.10	-2.64	0.81	94.89	95.55
Aralla 116	Bernesga Mb.	-12.16	16.42	-3.34	0.78	94.88	95.54
Aralla 117	Bernesga Mb.	-7.92	16.76	1.08	1.16	95.55	96.05
Aralla 118	Bernesga Mb.	-6.11	14.23	1.53	1.33	94.84	95.49
Aralla 119	Bernesga Mb.	-10.68	16.60	-1.76	0.86	95.05	95.67
Aralla 120	Bernesga Mb.	-10.91	16.06	-2.28	0.83	94.64	95.36
Aralla 121	Bernesga Mb.	-12.16	16.85	-3.11	0.80	95.10	95.71
Aralla 122	Bernesga Mb.	-10.54	15.91	-1.99	0.84	95.12	95.72
Aralla 123	Bernesga Mb.	-11.97	16.72	-2.99	0.80	94.89	95.55
Aralla 124	Bernesga Mb.	-9.65	15.49	-1.33	0.88	94.85	95.51
Aralla 125	Bernesga Mb.	-10.19	15.06	-2.10	0.83	95.02	95.63

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
Aralla 101	Bernesga Mb.	84.51	5.07	-0.91	5.10
Aralla 102	Bernesga Mb.	84.58	4.41	-0.33	4.44
Aralla 103	Bernesga Mb.	84.50	4.02	-0.40	4.06
Aralla 104	Bernesga Mb.	83.90	3.35	-0.35	3.39
Aralla 105	Bernesga Mb.	84.75	4.51	-0.62	4.54
Aralla 106	Bernesga Mb.	84.68	7.73	-1.97	7.76
Aralla 107	Bernesga Mb.	84.35	5.20	0.14	5.23
Aralla 108	Bernesga Mb.	83.15	3.77	0.20	3.80
Aralla 109	Bernesga Mb.	84.08	3.19	-0.98	3.22
Aralla 110	Bernesga Mb.	82.59	2.86	0.57	2.89
Aralla 111	Bernesga Mb.	83.01	3.53	0.17	3.57
Aralla 112	Bernesga Mb.	82.59	2.50	0.40	2.53
Aralla 113	Bernesga Mb.	82.84	2.83	0.30	2.86
Aralla 114	Bernesga Mb.	84.45	4.20	-0.18	4.23
Aralla 115	Bernesga Mb.	84.68	4.54	-0.53	4.58
Aralla 116	Bernesga Mb.	84.61	4.56	-0.01	4.59
Aralla 117	Bernesga Mb.	86.42	8.83	-2.10	8.86
Aralla 118	Bernesga Mb.	84.80	7.51	-1.06	7.54
Aralla 119	Bernesga Mb.	85.06	6.03	-0.77	6.06
Aralla 120	Bernesga Mb.	84.03	4.88	-0.08	4.91
Aralla 121	Bernesga Mb.	85.16	4.99	-0.47	5.02
Aralla 122	Bernesga Mb.	85.34	5.33	-0.93	5.36
Aralla 123	Bernesga Mb.	84.60	5.00	-0.11	5.03
Aralla 124	Bernesga Mb.	84.65	4.94	-1.08	4.97
Aralla 125	Bernesga Mb.	85.17	4.27	-1.14	4.31

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
Aralla 101	Bernesga Mb.	0.64	4.78	-45.22	0.85
Aralla 102	Bernesga Mb.	1.14	4.71	-44.26	0.87
Aralla 103	Bernesga Mb.	1.05	4.81	-42.33	0.87
Aralla 104	Bernesga Mb.	1.12	4.74	-42.77	0.87
Aralla 105	Bernesga Mb.	0.82	4.62	-44.87	0.86
Aralla 106	Bernesga Mb.	-0.34	4.68	-50.76	0.80
Aralla 107	Bernesga Mb.	1.70	4.69	-46.79	0.87
Aralla 108	Bernesga Mb.	1.77	4.72	-44.64	0.86
Aralla 109	Bernesga Mb.	0.39	4.54	-43.29	0.85
Aralla 110	Bernesga Mb.	2.17	4.74	-43.61	0.88
Aralla 111	Bernesga Mb.	1.74	4.69	-44.67	0.86
Aralla 112	Bernesga Mb.	1.97	4.73	-42.91	0.88
Aralla 113	Bernesga Mb.	1.86	4.65	-44.01	0.87
Aralla 114	Bernesga Mb.	1.29	4.59	-45.04	0.87
Aralla 115	Bernesga Mb.	0.92	4.56	-45.68	0.86
Aralla 116	Bernesga Mb.	1.47	4.61	-44.98	0.88
Aralla 117	Bernesga Mb.	-0.76	4.50	-50.88	0.78
Aralla 118	Bernesga Mb.	0.24	4.31	-48.87	0.76
Aralla 119	Bernesga Mb.	0.68	4.64	-47.47	0.84
Aralla 120	Bernesga Mb.	1.43	4.67	-45.77	0.85
Aralla 121	Bernesga Mb.	0.99	4.64	-45.27	0.87
Aralla 122	Bernesga Mb.	0.45	4.69	-44.34	0.84
Aralla 123	Bernesga Mb.	1.39	4.72	-45.23	0.87
Aralla 124	Bernesga Mb.	0.33	4.75	-44.08	0.83
Aralla 125	Bernesga Mb.	0.19	4.69	-42.44	0.85

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
Aralla 101	Bernesga Mb.	4.45	0.45	4.00	4.00	4.00	< D.L.	12.00
Aralla 102	Bernesga Mb.	3.80	0.41	4.00	4.00	4.00	< D.L.	12.00
Aralla 103	Bernesga Mb.	3.65	0.42	4.00	4.00	1.00	< D.L.	9.00
Aralla 104	Bernesga Mb.	3.60	0.43	4.00	4.00	1.00	< D.L.	9.00
Aralla 105	Bernesga Mb.	4.08	0.42	4.00	4.00	1.00	< D.L.	9.00
Aralla 106	Bernesga Mb.	7.09	0.53	4.00	4.00	1.00	< D.L.	9.00
Aralla 107	Bernesga Mb.	3.98	0.42	4.00	4.00	1.00	< D.L.	9.00
Aralla 108	Bernesga Mb.	3.87	0.45	4.00	4.00	1.00	< D.L.	9.00
Aralla 109	Bernesga Mb.	4.13	0.45	4.00	4.00	1.00	< D.L.	9.00
Aralla 110	Bernesga Mb.	3.26	0.43	4.00	4.00	1.00	< D.L.	9.00
Aralla 111	Bernesga Mb.	3.86	0.45	4.00	4.00	1.00	< D.L.	9.00
Aralla 112	Bernesga Mb.	3.17	0.43	4.00	4.00	1.00	< D.L.	9.00
Aralla 113	Bernesga Mb.	3.32	0.44	4.00	4.00	1.00	< D.L.	9.00
Aralla 114	Bernesga Mb.	3.60	0.41	4.00	4.00	1.00	< D.L.	9.00
Aralla 115	Bernesga Mb.	4.04	0.43	4.00	4.00	1.00	< D.L.	9.00
Aralla 116	Bernesga Mb.	3.53	0.40	4.00	4.00	1.00	< D.L.	9.00
Aralla 117	Bernesga Mb.	7.59	0.52	4.00	4.00	1.00	< D.L.	9.00
Aralla 118	Bernesga Mb.	7.38	0.53	4.00	4.00	1.00	< D.L.	9.00
Aralla 119	Bernesga Mb.	5.19	0.45	4.00	4.00	1.00	< D.L.	9.00
Aralla 120	Bernesga Mb.	4.39	0.44	4.00	4.00	1.00	< D.L.	9.00
Aralla 121	Bernesga Mb.	3.80	0.41	4.00	4.00	1.00	< D.L.	9.00
Aralla 122	Bernesga Mb.	4.63	0.43	4.00	4.00	1.00	< D.L.	9.00
Aralla 123	Bernesga Mb.	3.94	0.41	4.00	4.00	1.00	< D.L.	9.00
Aralla 124	Bernesga Mb.	5.11	0.47	4.00	4.00	1.00	< D.L.	9.00
Aralla 125	Bernesga Mb.	4.31	0.43	4.00	4.00	1.00	< D.L.	9.00

1.6 Aralla 126 - 150

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
Aralla 126	Bernesga Mb.	70.08	33.10	41.34	144.52	74.44
Aralla 127	Bernesga Mb.	87.42	26.38	40.00	153.80	66.38
Aralla 128	Bernesga Mb.	86.59	36.76	42.79	166.15	79.56
Aralla 129	Bernesga Mb.	62.32	39.21	43.77	145.30	82.98
Aralla 130	Bernesga Mb.	63.86	42.18	44.05	150.09	86.23
Aralla 131	Bernesga Mb.	46.83	26.91	35.21	108.94	62.11
Aralla 132	Bernesga Mb.	74.86	< D.L.	40.78	115.64	40.78
Aralla 133	Bernesga Mb.	74.53	36.44	42.32	153.29	78.76
Aralla 134	Bernesga Mb.	50.91	22.23	34.42	107.56	56.65
Aralla 135	Bernesga Mb.	65.07	43.30	45.35	153.72	88.65
Aralla 136	Bernesga Mb.	69.74	< D.L.	45.01	114.75	45.01
Aralla 137	Bernesga Mb.	67.50	47.32	48.17	162.99	95.49
Aralla 138	Bernesga Mb.	81.66	44.77	45.26	171.69	90.03
Aralla 139	Bernesga Mb.	76.98	39.18	45.92	162.08	85.10
Aralla 140	Bernesga Mb.	78.98	17.51	44.31	140.80	61.82
Aralla 141	Bernesga Mb.	72.90	36.94	42.99	152.83	79.93
Aralla 142	Bernesga Mb.	68.30	32.44	43.19	143.93	75.62
Aralla 143	Bernesga Mb.	66.97	35.55	41.99	144.50	77.54
Aralla 144	Bernesga Mb.	55.26	22.23	44.94	122.42	67.16
Aralla 145	Bernesga Mb.	61.10	26.93	38.90	126.94	65.83
Aralla 146	Bernesga Mb.	71.03	25.11	46.39	142.53	71.51
Aralla 147	Bernesga Mb.	77.27	40.62	42.85	160.74	83.47
Aralla 148	Bernesga Mb.	79.05	35.16	45.73	159.95	80.89
Aralla 149	Bernesga Mb.	75.44	28.66	36.92	141.02	65.58
Aralla 150	Bernesga Mb.	70.87	31.28	45.44	147.60	76.73

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
Aralla 126	Bernesga Mb.	83.80	52.12	62.17	198.09	114.29
Aralla 127	Bernesga Mb.	104.53	41.55	60.15	206.23	101.69
Aralla 128	Bernesga Mb.	103.55	57.89	64.35	225.79	122.25
Aralla 129	Bernesga Mb.	74.52	61.75	65.82	202.09	127.57
Aralla 130	Bernesga Mb.	76.36	66.43	66.24	209.03	132.67
Aralla 131	Bernesga Mb.	56.00	42.37	52.94	151.32	95.32
Aralla 132	Bernesga Mb.	89.52	< D.L.	61.33	150.85	61.33
Aralla 133	Bernesga Mb.	89.12	57.39	63.64	210.15	121.03
Aralla 134	Bernesga Mb.	60.88	35.00	51.76	147.64	86.76
Aralla 135	Bernesga Mb.	77.81	68.19	68.19	214.19	136.38
Aralla 136	Bernesga Mb.	83.40	< D.L.	67.68	151.08	67.68
Aralla 137	Bernesga Mb.	80.72	74.52	72.44	227.68	146.96
Aralla 138	Bernesga Mb.	97.65	70.51	68.06	236.22	138.57
Aralla 139	Bernesga Mb.	92.05	61.71	69.05	222.81	130.76
Aralla 140	Bernesga Mb.	94.44	27.57	66.64	188.65	94.21
Aralla 141	Bernesga Mb.	87.17	58.17	64.65	210.00	122.83
Aralla 142	Bernesga Mb.	81.68	51.08	64.94	197.70	116.02
Aralla 143	Bernesga Mb.	80.08	55.99	63.14	199.20	119.12
Aralla 144	Bernesga Mb.	66.08	35.00	67.57	168.65	102.57
Aralla 145	Bernesga Mb.	73.07	42.41	58.50	173.98	100.91
Aralla 146	Bernesga Mb.	84.93	39.55	69.76	194.24	109.31
Aralla 147	Bernesga Mb.	92.40	63.97	64.44	220.81	128.41
Aralla 148	Bernesga Mb.	94.53	55.37	68.77	218.68	124.14
Aralla 149	Bernesga Mb.	90.21	45.13	55.52	190.86	100.65
Aralla 150	Bernesga Mb.	84.75	49.27	68.34	202.35	117.60

Sample	Formation	U	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al2O3*5	10Al2O3
Aralla 126	Bernesga Mb.	10.48	104.75	209.50	6.13	3.62	4.86	33.64	6.73	141.98	283.96
Aralla 127	Bernesga Mb.	13.07	130.67	261.33	9.60	4.50	6.03	33.45	6.81	141.82	283.64
Aralla 128	Bernesga Mb.	12.94	129.43	258.87	8.12	4.46	5.98	34.49	6.43	145.38	290.76
Aralla 129	Bernesga Mb.	9.32	93.15	186.30	4.17	3.16	4.23	33.79	5.96	141.28	282.55
Aralla 130	Bernesga Mb.	9.55	95.45	190.90	4.01	3.25	4.36	34.70	5.66	145.68	291.36
Aralla 131	Bernesga Mb.	7.00	70.00	140.00	3.47	2.03	2.71	30.81	5.59	131.54	263.07
Aralla 132	Bernesga Mb.	11.19	111.90	223.80	11.19	3.89	5.21	36.35	13.15	155.86	311.73
Aralla 133	Bernesga Mb.	11.14	111.40	222.80	6.36	3.87	5.18	33.98	5.59	143.09	286.18
Aralla 134	Bernesga Mb.	7.61	76.10	152.20	4.69	2.36	3.16	32.77	7.13	141.78	283.56
Aralla 135	Bernesga Mb.	9.73	97.27	194.53	4.04	3.33	4.46	35.36	5.75	148.18	296.36
Aralla 136	Bernesga Mb.	10.43	104.25	208.50	10.43	3.60	4.83	37.16	10.08	157.37	314.74
Aralla 137	Bernesga Mb.	10.09	100.90	201.80	3.88	3.47	4.66	34.63	5.32	142.85	285.70
Aralla 138	Bernesga Mb.	12.21	122.07	244.13	6.33	4.23	5.67	33.22	5.27	137.55	275.09
Aralla 139	Bernesga Mb.	11.51	115.07	230.13	6.36	4.00	5.35	34.77	5.97	144.91	289.82
Aralla 140	Bernesga Mb.	11.81	118.05	236.10	9.51	4.10	5.49	34.94	8.14	146.70	293.40
Aralla 141	Bernesga Mb.	10.90	108.97	217.93	6.05	3.78	5.06	32.31	5.72	134.34	268.68
Aralla 142	Bernesga Mb.	10.21	102.10	204.20	5.95	3.52	4.72	33.98	6.33	142.57	285.14
Aralla 143	Bernesga Mb.	10.01	100.10	200.20	5.34	3.44	4.61	34.29	5.94	144.84	289.68
Aralla 144	Bernesga Mb.	8.26	82.60	165.20	5.34	2.68	3.59	35.88	7.60	151.00	302.01
Aralla 145	Bernesga Mb.	9.13	91.33	182.67	5.60	3.08	4.13	32.95	7.19	140.01	280.03
Aralla 146	Bernesga Mb.	10.62	106.17	212.33	7.32	3.68	4.93	36.81	7.36	154.79	309.59
Aralla 147	Bernesga Mb.	11.55	115.50	231.00	6.22	4.01	5.37	34.38	5.59	144.76	289.51
Aralla 148	Bernesga Mb.	11.82	118.17	236.33	7.20	4.10	5.50	36.76	6.21	154.97	309.95
Aralla 149	Bernesga Mb.	11.28	112.77	225.53	7.52	3.92	5.25	30.24	5.62	127.66	255.32
Aralla 150	Bernesga Mb.	10.59	105.93	211.87	6.49	3.67	4.92	35.57	6.56	149.16	298.31

Sample	Formation	15Al2O3	Al2O3/10	K2O*5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	200TiO2	300TiO2	K2O/Al2O3
Aralla 126	Bernesga Mb.	425.95	2.84	19.43	< D.L.	11.77	1255.40	3.88	5.00	231.42	347.13	0.14
Aralla 127	Bernesga Mb.	425.46	2.84	18.80	< D.L.	11.80	1848.61	3.94	5.07	223.05	334.57	0.13
Aralla 128	Bernesga Mb.	436.14	2.91	20.11	< D.L.	12.87	-2505.81	3.60	4.63	228.96	343.43	0.14
Aralla 129	Bernesga Mb.	423.83	2.83	20.57	< D.L.	14.04	-5534.41	3.19	4.10	235.10	352.64	0.15
Aralla 130	Bernesga Mb.	437.03	2.91	20.70	< D.L.	14.00	-8785.49	2.98	3.83	232.47	348.71	0.14
Aralla 131	Bernesga Mb.	394.61	2.63	16.54	< D.L.	10.51	-3081.79	3.17	4.08	198.38	297.58	0.13
Aralla 132	Bernesga Mb.	467.59	3.12	19.17	0.45	11.97	42382.14	8.36	10.76	216.30	324.46	0.12
Aralla 133	Bernesga Mb.	429.28	2.86	19.89	< D.L.	12.43	-7473.45	3.04	3.91	227.43	341.14	0.14
Aralla 134	Bernesga Mb.	425.34	2.84	16.18	< D.L.	11.05	4612.89	4.21	5.42	226.99	340.48	0.11
Aralla 135	Bernesga Mb.	444.53	2.96	21.31	< D.L.	13.07	-8108.84	3.11	4.00	237.18	355.77	0.14
Aralla 136	Bernesga Mb.	472.11	3.15	21.15	< D.L.	12.43	20173.04	6.18	7.95	227.61	341.41	0.13
Aralla 137	Bernesga Mb.	428.54	2.86	22.64	< D.L.	12.02	-9018.47	2.88	3.70	245.32	367.99	0.16
Aralla 138	Bernesga Mb.	412.64	2.75	21.27	< D.L.	11.59	-7643.37	2.88	3.70	233.87	350.81	0.15
Aralla 139	Bernesga Mb.	434.73	2.90	21.58	0.37	12.22	-5138.44	3.32	4.27	235.86	353.80	0.15
Aralla 140	Bernesga Mb.	440.10	2.93	20.82	< D.L.	11.07	10392.90	4.92	6.33	228.20	342.30	0.14
Aralla 141	Bernesga Mb.	403.02	2.69	20.20	< D.L.	11.58	-3672.32	3.19	4.10	224.60	336.90	0.15
Aralla 142	Bernesga Mb.	427.71	2.85	20.29	< D.L.	12.03	-1841.86	3.59	4.62	229.77	344.65	0.14
Aralla 143	Bernesga Mb.	434.51	2.90	19.73	< D.L.	12.35	-5444.73	3.29	4.23	218.84	328.25	0.14
Aralla 144	Bernesga Mb.	453.01	3.02	21.12	0.39	12.45	4486.51	4.44	5.72	237.63	356.45	0.14
Aralla 145	Bernesga Mb.	420.04	2.80	18.28	< D.L.	9.96	6244.24	4.33	5.57	231.02	346.53	0.13
Aralla 146	Bernesga Mb.	464.38	3.10	21.80	< D.L.	13.82	819.94	4.18	5.38	233.54	350.31	0.14
Aralla 147	Bernesga Mb.	434.27	2.90	20.14	< D.L.	10.85	-6767.44	3.15	4.06	234.77	352.15	0.14
Aralla 148	Bernesga Mb.	464.92	3.10	21.49	< D.L.	12.62	-6393.28	3.46	4.45	241.89	362.84	0.14
Aralla 149	Bernesga Mb.	382.97	2.55	17.35	< D.L.	10.30	-1644.35	3.21	4.13	196.90	295.35	0.14
Aralla 150	Bernesga Mb.	447.47	2.98	21.35	< D.L.	11.26	-1457.93	3.80	4.89	240.65	360.97	0.14

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
Aralla 126	Bernesga Mb.	-0.86	0.04	0.74	0.26	0.35	2.86	-0.46	20.92
Aralla 127	Bernesga Mb.	-0.88	0.04	0.75	0.27	0.35	2.84	-0.45	21.45
Aralla 128	Bernesga Mb.	-0.86	0.04	0.71	0.25	0.35	2.88	-0.46	20.84
Aralla 129	Bernesga Mb.	-0.84	0.05	0.66	0.26	0.35	2.90	-0.46	19.89
Aralla 130	Bernesga Mb.	-0.85	0.05	0.63	0.27	0.34	2.90	-0.46	20.41
Aralla 131	Bernesga Mb.	-0.90	0.04	0.66	0.35	0.36	2.76	-0.44	21.97
Aralla 132	Bernesga Mb.	-0.91	0.04	1.08	0.19	0.35	2.85	-0.46	19.89
Aralla 133	Bernesga Mb.	-0.86	0.04	0.64	0.29	0.35	2.88	-0.46	20.70
Aralla 134	Bernesga Mb.	-0.94	0.04	0.78	0.26	0.36	2.75	-0.44	24.09
Aralla 135	Bernesga Mb.	-0.84	0.04	0.65	0.26	0.34	2.92	-0.46	20.28
Aralla 136	Bernesga Mb.	-0.87	0.04	0.95	0.20	0.34	2.91	-0.46	21.67
Aralla 137	Bernesga Mb.	-0.80	0.04	0.61	0.26	0.34	2.95	-0.47	18.61
Aralla 138	Bernesga Mb.	-0.81	0.04	0.61	0.29	0.34	2.92	-0.46	18.85
Aralla 139	Bernesga Mb.	-0.83	0.04	0.68	0.27	0.34	2.92	-0.47	17.44
Aralla 140	Bernesga Mb.	-0.85	0.04	0.85	0.24	0.34	2.90	-0.46	20.45
Aralla 141	Bernesga Mb.	-0.82	0.04	0.66	0.31	0.35	2.89	-0.46	19.19
Aralla 142	Bernesga Mb.	-0.85	0.04	0.71	0.28	0.35	2.89	-0.46	20.29
Aralla 143	Bernesga Mb.	-0.87	0.04	0.67	0.28	0.35	2.87	-0.46	21.08
Aralla 144	Bernesga Mb.	-0.85	0.04	0.80	0.23	0.34	2.91	-0.46	18.36
Aralla 145	Bernesga Mb.	-0.88	0.04	0.79	0.25	0.35	2.83	-0.45	21.64
Aralla 146	Bernesga Mb.	-0.85	0.04	0.78	0.21	0.34	2.93	-0.47	20.79
Aralla 147	Bernesga Mb.	-0.86	0.04	0.65	0.24	0.35	2.88	-0.46	20.73
Aralla 148	Bernesga Mb.	-0.86	0.04	0.69	0.24	0.34	2.92	-0.47	21.06
Aralla 149	Bernesga Mb.	-0.87	0.04	0.66	0.36	0.36	2.79	-0.45	20.56
Aralla 150	Bernesga Mb.	-0.84	0.04	0.74	0.25	0.34	2.92	-0.47	20.38

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
Aralla 126	Bernesga Mb.	1.36	5.24	6.73	1.83	0.26	0.55	0.20	40.47	0.00
Aralla 127	Bernesga Mb.	1.32	5.08	6.81	1.85	0.27	0.54	0.20	39.74	0.00
Aralla 128	Bernesga Mb.	1.40	5.42	6.43	1.80	0.25	0.56	0.18	41.56	0.01
Aralla 129	Bernesga Mb.	1.42	5.53	5.96	1.84	0.26	0.54	0.16	43.15	0.01
Aralla 130	Bernesga Mb.	1.43	5.57	5.66	1.86	0.27	0.54	0.15	43.12	0.01
Aralla 131	Bernesga Mb.	1.20	4.51	5.59	2.23	0.35	0.45	0.17	39.21	0.00
Aralla 132	Bernesga Mb.	1.57	5.40	13.15	1.56	0.19	0.64	0.38	36.49	0.00
Aralla 133	Bernesga Mb.	1.38	5.36	5.59	1.97	0.29	0.51	0.15	41.66	0.01
Aralla 134	Bernesga Mb.	1.18	4.41	7.13	1.84	0.26	0.54	0.21	39.40	0.00
Aralla 135	Bernesga Mb.	1.46	5.72	5.75	1.82	0.26	0.55	0.15	42.57	0.01
Aralla 136	Bernesga Mb.	1.45	5.68	10.08	1.60	0.20	0.63	0.28	37.86	0.00
Aralla 137	Bernesga Mb.	1.54	6.06	5.32	1.84	0.26	0.54	0.14	41.84	0.01
Aralla 138	Bernesga Mb.	1.46	5.71	5.27	1.94	0.29	0.51	0.15	40.72	0.00
Aralla 139	Bernesga Mb.	1.66	5.98	5.97	1.86	0.27	0.54	0.16	39.89	0.00
Aralla 140	Bernesga Mb.	1.43	5.60	8.14	1.75	0.24	0.57	0.24	37.40	0.00
Aralla 141	Bernesga Mb.	1.40	5.44	5.72	2.04	0.31	0.49	0.17	38.23	0.00
Aralla 142	Bernesga Mb.	1.41	5.46	6.33	1.89	0.28	0.53	0.18	37.93	0.00
Aralla 143	Bernesga Mb.	1.37	5.32	5.94	1.90	0.28	0.53	0.16	39.31	0.00
Aralla 144	Bernesga Mb.	1.65	5.87	7.60	1.70	0.23	0.59	0.21	38.52	0.00
Aralla 145	Bernesga Mb.	1.29	4.95	7.19	1.79	0.25	0.56	0.22	38.44	0.00
Aralla 146	Bernesga Mb.	1.49	5.85	7.36	1.64	0.21	0.61	0.19	40.27	0.00
Aralla 147	Bernesga Mb.	1.40	5.42	5.59	1.76	0.24	0.57	0.16	42.45	0.01
Aralla 148	Bernesga Mb.	1.47	5.77	6.21	1.72	0.24	0.58	0.16	39.46	0.00
Aralla 149	Bernesga Mb.	1.24	4.71	5.62	2.31	0.36	0.43	0.18	35.71	0.00
Aralla 150	Bernesga Mb.	1.46	5.74	6.56	1.78	0.25	0.56	0.18	39.32	0.00

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Ti Cal (ppm)	Zr/Sc	Cr/Th	Th/Sc
Aralla 126	Bernesga Mb.	24.54	0.06	340.80	0.37	197.53	0.45	0.70	1.23	< D.L.	< D.L.	4.34	6935.81	< D.L.	8.48	< D.L.
Aralla 127	Bernesga Mb.	25.43	0.06	331.89	0.40	203.12	0.53	0.75	1.16	< D.L.	7.96	3.46	6684.81	8.47	10.79	0.48
Aralla 128	Bernesga Mb.	25.40	0.06	341.31	0.47	206.89	0.45	0.71	1.19	< D.L.	10.27	4.82	6861.90	8.13	8.14	0.75
Aralla 129	Bernesga Mb.	24.04	0.06	340.79	0.21	215.45	0.46	0.72	1.08	< D.L.	< D.L.	5.15	7045.90	< D.L.	8.31	< D.L.
Aralla 130	Bernesga Mb.	25.07	0.06	337.11	0.16	206.64	0.41	0.71	1.09	< D.L.	< D.L.	5.54	6967.29	< D.L.	7.59	< D.L.
Aralla 131	Bernesga Mb.	26.52	0.06	363.60	0.58	151.55	0.40	0.72	1.14	< D.L.	8.37	3.53	5945.65	10.67	8.81	0.60
Aralla 132	Bernesga Mb.	28.82	0.07	394.31	0.26	207.69	0.55	0.73	1.37	< D.L.	< D.L.	< D.L.	6482.71	< D.L.	< D.L.	< D.L.
Aralla 133	Bernesga Mb.	25.17	0.06	340.46	0.45	199.73	0.47	0.70	1.07	< D.L.	9.21	4.78	6816.06	10.24	8.08	0.74
Aralla 134	Bernesga Mb.	24.99	0.06	364.23	0.37	209.67	0.53	0.85	1.51	< D.L.	< D.L.	2.92	6802.84	< D.L.	12.41	< D.L.
Aralla 135	Bernesga Mb.	24.99	0.06	356.57	0.54	202.16	0.40	0.67	1.12	< D.L.	11.42	5.68	7108.38	8.77	7.12	0.96
Aralla 136	Bernesga Mb.	27.66	0.06	372.71	0.48	207.07	0.55	0.65	1.16	< D.L.	< D.L.	< D.L.	6821.41	< D.L.	< D.L.	< D.L.
Aralla 137	Bernesga Mb.	23.29	0.05	328.82	< D.L.	190.98	0.31	0.66	1.12	< D.L.	10.06	6.21	7352.44	7.46	6.74	0.88
Aralla 138	Bernesga Mb.	23.52	0.05	321.62	0.89	170.31	0.27	0.70	1.06	< D.L.	< D.L.	5.88	7009.31	< D.L.	6.84	< D.L.
Aralla 139	Bernesga Mb.	24.58	0.06	337.76	0.76	188.84	0.37	0.68	1.12	< D.L.	9.25	5.14	7068.92	7.73	7.63	0.74
Aralla 140	Bernesga Mb.	25.71	0.06	353.84	0.53	187.09	0.47	0.63	1.23	< D.L.	5.66	2.30	6839.19	4.91	14.16	0.20
Aralla 141	Bernesga Mb.	23.93	0.06	331.06	0.70	166.26	0.33	0.71	1.11	< D.L.	8.17	4.85	6731.42	10.18	7.51	0.69
Aralla 142	Bernesga Mb.	24.82	0.06	331.12	0.73	162.39	0.32	0.68	1.16	< D.L.	< D.L.	4.26	6886.21	< D.L.	8.23	< D.L.
Aralla 143	Bernesga Mb.	26.47	0.06	347.25	0.64	188.23	0.39	0.78	1.10	< D.L.	5.69	4.67	6558.60	6.60	8.65	0.47
Aralla 144	Bernesga Mb.	25.42	0.06	381.24	0.24	184.38	0.42	0.67	1.12	< D.L.	< D.L.	2.92	7121.88	< D.L.	12.40	< D.L.
Aralla 145	Bernesga Mb.	24.24	0.07	390.31	0.49	181.30	0.43	0.71	1.34	< D.L.	< D.L.	3.53	6923.77	< D.L.	9.42	< D.L.
Aralla 146	Bernesga Mb.	26.51	0.06	373.64	0.47	201.08	0.46	0.63	1.10	< D.L.	< D.L.	3.30	6999.32	< D.L.	11.24	< D.L.
Aralla 147	Bernesga Mb.	24.66	0.06	352.03	< D.L.	198.66	0.30	0.78	1.27	< D.L.	8.38	5.33	7036.13	5.26	8.39	0.62
Aralla 148	Bernesga Mb.	25.63	0.06	361.58	0.68	184.79	0.31	0.73	1.17	< D.L.	7.72	4.61	7249.57	5.82	8.88	0.54
Aralla 149	Bernesga Mb.	25.93	0.06	341.88	< D.L.	148.42	0.38	0.74	1.20	< D.L.	7.28	3.76	5901.10	10.98	8.13	0.55
Aralla 150	Bernesga Mb.	24.79	0.06	341.49	0.75	179.60	0.30	0.72	1.18	< D.L.	< D.L.	4.11	7212.30	< D.L.	9.81	< D.L.

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
Aralla 126	Bernesga Mb.	1.13	0.88	0.03	8.76	1.61	2.58	< D.L.	0.57	1.75
Aralla 127	Bernesga Mb.	1.23	0.81	0.03	9.14	1.64	2.73	< D.L.	0.65	1.55
Aralla 128	Bernesga Mb.	0.94	1.06	0.02	7.83	1.34	2.75	< D.L.	0.59	1.69
Aralla 129	Bernesga Mb.	0.86	1.16	0.02	7.38	1.19	2.30	< D.L.	0.67	1.49
Aralla 130	Bernesga Mb.	0.91	1.10	0.02	7.88	1.29	2.35	< D.L.	0.64	1.55
Aralla 131	Bernesga Mb.	1.45	0.69	0.03	11.49	2.01	3.14	< D.L.	0.63	1.58
Aralla 132	Bernesga Mb.	0.90	1.11	0.02	7.63	1.23	5.11	< D.L.	0.53	1.87
Aralla 133	Bernesga Mb.	1.19	0.84	0.03	9.89	1.71	1.66	< D.L.	0.65	1.54
Aralla 134	Bernesga Mb.	1.16	0.86	0.02	7.94	1.37	4.30	< D.L.	0.56	1.77
Aralla 135	Bernesga Mb.	0.86	1.16	0.02	7.84	1.29	1.95	< D.L.	0.60	1.68
Aralla 136	Bernesga Mb.	0.84	1.19	0.02	7.33	1.28	3.98	< D.L.	0.56	1.77
Aralla 137	Bernesga Mb.	0.83	1.21	0.02	7.03	1.25	1.57	< D.L.	0.59	1.69
Aralla 138	Bernesga Mb.	0.99	1.01	0.02	7.87	1.42	1.56	< D.L.	0.66	1.52
Aralla 139	Bernesga Mb.	0.94	1.07	0.02	7.70	1.37	2.09	< D.L.	0.61	1.64
Aralla 140	Bernesga Mb.	1.06	0.94	0.02	8.57	1.70	3.47	< D.L.	0.51	1.96
Aralla 141	Bernesga Mb.	1.38	0.72	0.03	10.50	1.96	2.17	< D.L.	0.64	1.57
Aralla 142	Bernesga Mb.	1.61	0.62	0.04	11.91	2.36	2.34	< D.L.	0.59	1.69
Aralla 143	Bernesga Mb.	1.27	0.78	0.03	10.47	1.63	2.02	< D.L.	0.71	1.41
Aralla 144	Bernesga Mb.	0.96	1.05	0.02	8.33	1.43	3.16	< D.L.	0.60	1.68
Aralla 145	Bernesga Mb.	1.39	0.72	0.03	10.99	1.95	2.90	< D.L.	0.53	1.89
Aralla 146	Bernesga Mb.	0.72	1.38	0.02	6.79	1.14	2.79	< D.L.	0.57	1.75
Aralla 147	Bernesga Mb.	0.80	1.25	0.02	6.83	1.02	2.18	< D.L.	0.62	1.62
Aralla 148	Bernesga Mb.	0.88	1.13	0.02	7.48	1.22	2.16	< D.L.	0.62	1.62
Aralla 149	Bernesga Mb.	1.80	0.55	0.04	12.95	2.44	2.09	< D.L.	0.62	1.62
Aralla 150	Bernesga Mb.	0.90	1.11	0.02	7.19	1.26	2.83	< D.L.	0.61	1.64

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
Aralla 126	Bernesga Mb.	1.34	0.70	12.87	4.40	< D.L.	1.64	5.79	7.35
Aralla 127	Bernesga Mb.	1.10	0.87	11.54	5.25	< D.L.	2.10	6.06	7.47
Aralla 128	Bernesga Mb.	1.19	0.84	12.93	6.07	< D.L.	2.87	5.79	7.66
Aralla 129	Bernesga Mb.	0.70	0.62	12.80	10.08	< D.L.	2.07	5.83	8.58
Aralla 130	Bernesga Mb.	0.69	0.62	12.67	10.28	< D.L.	1.65	5.23	8.17
Aralla 131	Bernesga Mb.	0.82	0.50	10.58	3.33	< D.L.	1.94	4.18	6.70
Aralla 132	Bernesga Mb.	2.47	0.68	11.59	9.35	< D.L.	2.39	6.41	6.18
Aralla 133	Bernesga Mb.	0.67	0.74	11.75	2.57	< D.L.	1.15	5.53	7.65
Aralla 134	Bernesga Mb.	1.25	0.51	12.82	5.12	< D.L.	1.89	6.73	7.24
Aralla 135	Bernesga Mb.	0.67	0.62	12.99	2.39	< D.L.	1.29	5.15	7.74
Aralla 136	Bernesga Mb.	1.71	0.63	11.12	4.55	< D.L.	2.20	6.15	6.28
Aralla 137	Bernesga Mb.	0.59	0.67	14.02	< D.L.	< D.L.	1.10	4.33	8.30
Aralla 138	Bernesga Mb.	0.59	0.84	12.57	2.63	< D.L.	2.35	3.42	8.28
Aralla 139	Bernesga Mb.	0.87	0.75	12.58	2.44	< D.L.	1.86	4.64	7.67
Aralla 140	Bernesga Mb.	1.68	0.76	12.30	4.06	< D.L.	2.14	5.76	6.29
Aralla 141	Bernesga Mb.	1.03	0.77	12.06	2.76	< D.L.	1.94	4.01	7.68
Aralla 142	Bernesga Mb.	1.15	0.68	11.79	3.02	< D.L.	2.19	3.80	6.96
Aralla 143	Bernesga Mb.	0.85	0.65	11.13	2.47	< D.L.	1.57	4.38	7.89
Aralla 144	Bernesga Mb.	1.58	0.52	11.38	4.48	< D.L.	1.10	4.75	6.79
Aralla 145	Bernesga Mb.	1.37	0.62	12.70	3.81	< D.L.	1.88	5.50	6.74
Aralla 146	Bernesga Mb.	1.19	0.65	11.84	3.67	< D.L.	1.73	5.49	6.78
Aralla 147	Bernesga Mb.	0.65	0.75	14.19	< D.L.	2.73	1.44	4.21	8.76
Aralla 148	Bernesga Mb.	0.85	0.72	12.12	2.31	< D.L.	1.56	3.77	7.50
Aralla 149	Bernesga Mb.	0.98	0.83	10.98	< D.L.	< D.L.	1.75	4.20	6.79
Aralla 150	Bernesga Mb.	0.98	0.67	12.57	2.44	< D.L.	1.83	3.72	7.66

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
Aralla 126	Bernesga Mb.	< D.L.	11.92	29.96	26.98	11.86	0.69	20.48	< D.L.
Aralla 127	Bernesga Mb.	< D.L.	11.83	32.39	27.17	12.27	0.66	22.14	< D.L.
Aralla 128	Bernesga Mb.	< D.L.	11.59	33.46	29.87	10.23	0.69	22.87	< D.L.
Aralla 129	Bernesga Mb.	< D.L.	11.92	31.00	27.34	10.20	0.69	21.19	< D.L.
Aralla 130	Bernesga Mb.	< D.L.	11.56	28.67	27.16	10.56	0.71	19.59	< D.L.
Aralla 131	Bernesga Mb.	< D.L.	12.31	31.29	29.27	13.49	0.72	21.38	< D.L.
Aralla 132	Bernesga Mb.	< D.L.	10.59	32.22	43.34	7.60	0.64	22.02	< D.L.
Aralla 133	Bernesga Mb.	< D.L.	11.73	29.66	18.15	13.07	0.68	20.27	< D.L.
Aralla 134	Bernesga Mb.	< D.L.	11.65	29.57	36.50	9.88	0.66	20.21	< D.L.
Aralla 135	Bernesga Mb.	< D.L.	11.40	27.87	22.54	9.97	0.72	19.04	< D.L.
Aralla 136	Bernesga Mb.	< D.L.	10.58	27.31	38.27	8.06	0.64	18.66	< D.L.
Aralla 137	Bernesga Mb.	< D.L.	12.03	28.96	19.65	10.40	0.76	19.79	< D.L.
Aralla 138	Bernesga Mb.	< D.L.	12.30	30.01	18.56	11.79	0.79	20.51	< D.L.
Aralla 139	Bernesga Mb.	< D.L.	11.71	28.49	23.48	10.51	0.73	19.47	< D.L.
Aralla 140	Bernesga Mb.	< D.L.	11.37	29.25	34.83	10.67	0.68	19.99	< D.L.
Aralla 141	Bernesga Mb.	< D.L.	12.39	32.96	23.57	15.02	0.75	22.53	< D.L.
Aralla 142	Bernesga Mb.	< D.L.	11.71	30.44	23.92	16.41	0.76	20.80	< D.L.
Aralla 143	Bernesga Mb.	< D.L.	11.51	28.49	20.46	12.90	0.72	19.47	< D.L.
Aralla 144	Bernesga Mb.	< D.L.	11.22	27.57	32.16	9.73	0.71	18.84	< D.L.
Aralla 145	Bernesga Mb.	< D.L.	11.86	43.14	27.54	13.15	0.70	29.48	< D.L.
Aralla 146	Bernesga Mb.	< D.L.	10.86	28.05	29.89	7.77	0.68	19.17	< D.L.
Aralla 147	Bernesga Mb.	< D.L.	11.65	28.92	24.37	8.90	0.77	19.76	< D.L.
Aralla 148	Bernesga Mb.	< D.L.	10.81	26.72	22.35	9.14	0.76	18.26	< D.L.
Aralla 149	Bernesga Mb.	< D.L.	12.72	31.95	19.16	16.54	0.72	21.83	< D.L.
Aralla 150	Bernesga Mb.	< D.L.	11.25	26.14	30.10	9.62	0.77	17.86	< D.L.

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
Aralla 126	Bernesga Mb.	1.24	0.80	1.87	17.02	< D.L.	1.43	0.15	2.01	0.01	< D.L.	< D.L.
Aralla 127	Bernesga Mb.	0.79	1.26	1.88	14.09	< D.L.	1.50	0.18	1.65	0.01	< D.L.	< D.L.
Aralla 128	Bernesga Mb.	1.12	0.89	1.82	12.16	< D.L.	1.28	0.11	1.84	0.01	0.07	0.72
Aralla 129	Bernesga Mb.	1.66	0.60	1.85	16.38	< D.L.	1.11	0.04	1.05	0.01	0.30	3.02
Aralla 130	Bernesga Mb.	1.74	0.57	1.91	17.05	< D.L.	1.03	0.01	1.06	0.01	0.19	1.86
Aralla 131	Bernesga Mb.	1.51	0.66	1.85	26.83	< D.L.	1.37	0.14	1.15	0.01	0.05	0.48
Aralla 132	Bernesga Mb.	< D.L.	< D.L.	1.52	11.21	< D.L.	3.12	0.49	4.07	0.01	0.04	0.39
Aralla 133	Bernesga Mb.	1.29	0.78	2.05	17.77	< D.L.	1.09	0.04	1.02	0.01	0.18	1.80
Aralla 134	Bernesga Mb.	1.15	0.87	1.58	19.48	< D.L.	1.86	0.27	1.88	0.01	0.05	0.53
Aralla 135	Bernesga Mb.	1.75	0.57	1.89	16.08	< D.L.	1.04	0.02	1.05	0.01	< D.L.	< D.L.
Aralla 136	Bernesga Mb.	< D.L.	< D.L.	1.67	12.88	< D.L.	2.09	0.32	2.85	0.01	0.03	0.32
Aralla 137	Bernesga Mb.	1.85	0.54	1.91	15.58	< D.L.	0.91	-0.04	0.89	0.01	< D.L.	< D.L.
Aralla 138	Bernesga Mb.	1.44	0.69	1.93	14.06	< D.L.	0.97	-0.01	0.85	0.01	< D.L.	< D.L.
Aralla 139	Bernesga Mb.	1.34	0.75	1.86	14.01	< D.L.	1.10	0.04	1.33	0.01	< D.L.	< D.L.
Aralla 140	Bernesga Mb.	0.58	1.71	1.82	14.04	< D.L.	1.69	0.23	2.61	0.01	< D.L.	< D.L.
Aralla 141	Bernesga Mb.	1.33	0.75	2.09	19.59	< D.L.	1.13	0.05	1.47	0.01	< D.L.	< D.L.
Aralla 142	Bernesga Mb.	1.25	0.80	2.27	24.26	< D.L.	1.26	0.10	1.74	0.01	< D.L.	< D.L.
Aralla 143	Bernesga Mb.	1.40	0.72	2.00	19.76	< D.L.	1.19	0.08	1.31	0.01	0.13	1.34
Aralla 144	Bernesga Mb.	1.06	0.94	1.77	18.83	< D.L.	1.50	0.18	2.53	0.01	< D.L.	< D.L.
Aralla 145	Bernesga Mb.	1.16	0.86	1.91	21.34	< D.L.	1.69	0.23	2.03	0.01	< D.L.	< D.L.
Aralla 146	Bernesga Mb.	0.93	1.07	1.70	11.98	< D.L.	1.37	0.14	1.95	0.01	< D.L.	< D.L.
Aralla 147	Bernesga Mb.	1.38	0.72	1.72	11.81	0.28	1.12	0.05	0.99	0.01	0.04	0.45
Aralla 148	Bernesga Mb.	1.17	0.85	1.80	12.69	< D.L.	1.15	0.06	1.40	0.01	< D.L.	< D.L.
Aralla 149	Bernesga Mb.	1.00	1.00	2.02	19.83	< D.L.	1.32	0.12	1.32	0.01	< D.L.	< D.L.
Aralla 150	Bernesga Mb.	1.16	0.86	1.80	14.33	< D.L.	1.27	0.10	1.54	0.01	0.03	0.29

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	V (wt%)	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
Aralla 126	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.13	0.02	7.05	17.83	393231.29	1116.47	-20.94
Aralla 127	Bernesga Mb.	< D.L.	< D.L.	< D.L.	9.60	0.02	6.80	18.41	394825.28	1226.00	-20.73
Aralla 128	Bernesga Mb.	1441.03	0.11	0.14	8.12	0.02	6.98	15.74	398334.82	1331.80	-22.60
Aralla 129	Bernesga Mb.	6044.11	0.45	0.60	4.17	0.02	7.17	15.26	392141.74	1181.80	-22.91
Aralla 130	Bernesga Mb.	3724.75	0.28	0.37	4.01	0.02	7.09	16.28	406942.46	1060.97	-24.56
Aralla 131	Bernesga Mb.	962.18	0.07	0.10	3.47	0.01	6.04	18.78	413690.84	852.77	-20.69
Aralla 132	Bernesga Mb.	779.01	0.06	0.08	11.19	0.02	6.58	12.55	391899.65	1450.87	-10.44
Aralla 133	Bernesga Mb.	3596.03	0.27	0.36	6.36	0.02	6.93	19.79	414600.83	1012.43	-23.77
Aralla 134	Bernesga Mb.	1060.61	0.08	0.11	4.69	0.02	6.91	14.82	393318.79	1295.07	-19.88
Aralla 135	Bernesga Mb.	< D.L.	< D.L.	< D.L.	4.04	0.02	7.23	15.64	408812.22	1010.37	-24.73
Aralla 136	Bernesga Mb.	641.43	0.05	0.06	10.43	0.02	6.93	13.42	401372.62	1391.13	-17.46
Aralla 137	Bernesga Mb.	< D.L.	< D.L.	< D.L.	3.88	0.02	7.48	15.72	396752.55	821.40	-24.21
Aralla 138	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.33	0.02	7.13	17.16	395504.80	839.13	-22.99
Aralla 139	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.36	0.02	7.19	16.12	405277.07	996.57	-23.33
Aralla 140	Bernesga Mb.	< D.L.	< D.L.	< D.L.	9.51	0.02	6.94	16.57	395747.90	1227.67	-18.85
Aralla 141	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.05	0.02	6.84	21.35	397782.95	845.93	-21.30
Aralla 142	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.95	0.02	6.99	24.77	402925.35	903.73	-21.97
Aralla 143	Bernesga Mb.	2682.30	0.20	0.27	5.34	0.02	6.68	19.78	410309.00	913.47	-23.41
Aralla 144	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.34	0.02	7.23	15.55	399852.57	934.13	-21.30
Aralla 145	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.60	0.02	7.02	19.49	382911.62	1092.80	-19.11
Aralla 146	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.32	0.02	7.11	12.72	400664.67	1182.23	-22.99
Aralla 147	Bernesga Mb.	893.67	0.07	0.09	6.22	0.02	7.17	13.64	391091.33	865.13	-23.81
Aralla 148	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.20	0.02	7.37	15.00	413832.99	874.93	-25.23
Aralla 149	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.52	0.01	5.99	22.36	410900.42	803.33	-19.67
Aralla 150	Bernesga Mb.	585.18	0.04	0.06	6.49	0.02	7.33	15.18	406035.50	875.40	-22.84

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
Aralla 126	Bernesga Mb.	-9.78	15.33	-1.55	0.86	94.75	95.44
Aralla 127	Bernesga Mb.	-9.69	15.32	-1.46	0.87	94.90	95.55
Aralla 128	Bernesga Mb.	-10.56	15.70	-2.13	0.83	94.73	95.42
Aralla 129	Bernesga Mb.	-10.70	15.26	-2.51	0.81	94.44	95.21
Aralla 130	Bernesga Mb.	-11.48	15.73	-3.03	0.79	94.60	95.33
Aralla 131	Bernesga Mb.	-9.67	14.21	-2.04	0.83	95.05	95.65
Aralla 132	Bernesga Mb.	-4.88	16.83	4.16	6.84	94.58	95.21
Aralla 133	Bernesga Mb.	-11.11	15.45	-2.81	0.80	94.69	95.39
Aralla 134	Bernesga Mb.	-9.29	15.31	-1.07	0.90	95.52	96.01
Aralla 135	Bernesga Mb.	-11.56	16.00	-2.96	0.80	94.55	95.30
Aralla 136	Bernesga Mb.	-8.16	17.00	0.97	1.13	94.94	95.59
Aralla 137	Bernesga Mb.	-11.31	15.43	-3.03	0.79	94.00	94.90
Aralla 138	Bernesga Mb.	-10.74	14.86	-2.77	0.80	94.10	94.96
Aralla 139	Bernesga Mb.	-10.90	15.65	-2.50	0.81	93.69	94.58
Aralla 140	Bernesga Mb.	-8.81	15.84	-0.30	0.97	94.61	95.34
Aralla 141	Bernesga Mb.	-9.95	14.51	-2.16	0.82	94.22	95.05
Aralla 142	Bernesga Mb.	-10.27	15.40	-2.00	0.84	94.57	95.30
Aralla 143	Bernesga Mb.	-10.94	15.64	-2.54	0.81	94.79	95.47
Aralla 144	Bernesga Mb.	-9.95	16.31	-1.20	0.89	94.04	94.83
Aralla 145	Bernesga Mb.	-8.93	15.12	-0.81	0.92	94.95	95.58
Aralla 146	Bernesga Mb.	-10.74	16.72	-1.77	0.86	94.70	95.41
Aralla 147	Bernesga Mb.	-11.12	15.63	-2.73	0.80	94.69	95.40
Aralla 148	Bernesga Mb.	-11.79	16.74	-2.80	0.81	94.78	95.47
Aralla 149	Bernesga Mb.	-9.19	13.79	-1.79	0.84	94.67	95.36
Aralla 150	Bernesga Mb.	-10.67	16.11	-2.02	0.84	94.58	95.32

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
Aralla 126	Bernesga Mb.	84.41	4.50	-0.96	4.53
Aralla 127	Bernesga Mb.	84.81	4.74	-1.20	4.77
Aralla 128	Bernesga Mb.	84.29	4.31	-0.73	4.34
Aralla 129	Bernesga Mb.	83.62	3.04	-0.62	3.07
Aralla 130	Bernesga Mb.	83.96	3.34	-0.45	3.37
Aralla 131	Bernesga Mb.	85.38	3.56	-1.68	3.59
Aralla 132	Bernesga Mb.	85.23	11.35	-2.51	11.38
Aralla 133	Bernesga Mb.	84.22	3.55	-0.59	3.58
Aralla 134	Bernesga Mb.	86.54	5.68	-2.02	5.72
Aralla 135	Bernesga Mb.	83.81	3.76	-0.15	3.79
Aralla 136	Bernesga Mb.	84.71	8.43	-1.12	8.46
Aralla 137	Bernesga Mb.	82.50	2.66	0.40	2.69
Aralla 138	Bernesga Mb.	82.80	2.47	-0.07	2.50
Aralla 139	Bernesga Mb.	82.90	3.79	-0.10	3.82
Aralla 140	Bernesga Mb.	83.97	6.03	-0.76	6.06
Aralla 141	Bernesga Mb.	83.16	2.74	-0.58	2.77
Aralla 142	Bernesga Mb.	83.92	4.04	-0.62	4.07
Aralla 143	Bernesga Mb.	84.48	4.16	-0.71	4.19
Aralla 144	Bernesga Mb.	83.73	5.80	-0.58	5.83
Aralla 145	Bernesga Mb.	84.98	5.27	-1.30	5.30
Aralla 146	Bernesga Mb.	84.11	5.54	-0.38	5.57
Aralla 147	Bernesga Mb.	84.22	4.00	-0.33	4.03
Aralla 148	Bernesga Mb.	84.31	4.95	-0.07	4.98
Aralla 149	Bernesga Mb.	84.42	3.01	-1.48	3.03
Aralla 150	Bernesga Mb.	83.88	4.86	-0.16	4.89

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
Aralla 126	Bernesga Mb.	0.45	4.68	-44.49	0.84
Aralla 127	Bernesga Mb.	0.18	4.67	-44.62	0.83
Aralla 128	Bernesga Mb.	0.72	4.73	-44.32	0.85
Aralla 129	Bernesga Mb.	0.86	4.81	-42.57	0.86
Aralla 130	Bernesga Mb.	1.04	4.77	-43.44	0.87
Aralla 131	Bernesga Mb.	-0.43	4.50	-43.56	0.85
Aralla 132	Bernesga Mb.	-1.01	4.43	-57.52	0.72
Aralla 133	Bernesga Mb.	0.85	4.63	-44.17	0.87
Aralla 134	Bernesga Mb.	-0.79	4.55	-44.33	0.82
Aralla 135	Bernesga Mb.	1.37	4.75	-44.28	0.87
Aralla 136	Bernesga Mb.	0.39	4.61	-52.57	0.78
Aralla 137	Bernesga Mb.	2.00	4.82	-42.99	0.87
Aralla 138	Bernesga Mb.	1.45	4.78	-42.45	0.87
Aralla 139	Bernesga Mb.	1.52	4.76	-44.89	0.86
Aralla 140	Bernesga Mb.	0.73	4.65	-48.35	0.81
Aralla 141	Bernesga Mb.	0.88	4.68	-43.20	0.85
Aralla 142	Bernesga Mb.	0.85	4.67	-44.84	0.85
Aralla 143	Bernesga Mb.	0.72	4.71	-44.55	0.86
Aralla 144	Bernesga Mb.	1.02	4.74	-47.47	0.82
Aralla 145	Bernesga Mb.	0.05	4.57	-44.48	0.82
Aralla 146	Bernesga Mb.	1.17	4.82	-46.81	0.84
Aralla 147	Bernesga Mb.	1.12	4.82	-42.55	0.86
Aralla 148	Bernesga Mb.	1.47	4.72	-45.86	0.86
Aralla 149	Bernesga Mb.	-0.18	4.51	-43.73	0.85
Aralla 150	Bernesga Mb.	1.37	4.68	-46.17	0.84

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
Aralla 126	Bernesga Mb.	4.80	0.46	4.00	4.00	1.00	< D.L.	9.00
Aralla 127	Bernesga Mb.	5.05	0.46	4.00	4.00	1.00	< D.L.	9.00
Aralla 128	Bernesga Mb.	4.49	0.45	4.00	4.00	1.00	< D.L.	9.00
Aralla 129	Bernesga Mb.	3.87	0.45	4.00	4.00	1.00	< D.L.	9.00
Aralla 130	Bernesga Mb.	3.66	0.43	4.00	4.00	1.00	< D.L.	9.00
Aralla 131	Bernesga Mb.	4.57	0.42	4.00	4.00	1.00	< D.L.	9.00
Aralla 132	Bernesga Mb.	11.06	0.63	4.00	4.00	1.00	< D.L.	9.00
Aralla 133	Bernesga Mb.	3.82	0.42	4.00	4.00	1.00	< D.L.	9.00
Aralla 134	Bernesga Mb.	5.31	0.45	4.00	4.00	1.00	< D.L.	9.00
Aralla 135	Bernesga Mb.	3.75	0.43	4.00	4.00	1.00	< D.L.	9.00
Aralla 136	Bernesga Mb.	7.77	0.54	4.00	4.00	1.00	< D.L.	9.00
Aralla 137	Bernesga Mb.	3.35	0.44	4.00	4.00	1.00	< D.L.	9.00
Aralla 138	Bernesga Mb.	3.52	0.44	4.00	4.00	1.00	< D.L.	9.00
Aralla 139	Bernesga Mb.	4.03	0.45	4.00	4.00	1.00	< D.L.	9.00
Aralla 140	Bernesga Mb.	6.17	0.51	4.00	4.00	1.00	< D.L.	9.00
Aralla 141	Bernesga Mb.	4.06	0.46	4.00	4.00	1.00	< D.L.	9.00
Aralla 142	Bernesga Mb.	4.47	0.46	4.00	4.00	1.00	< D.L.	9.00
Aralla 143	Bernesga Mb.	4.30	0.43	4.00	4.00	1.00	< D.L.	9.00
Aralla 144	Bernesga Mb.	5.35	0.49	4.00	4.00	1.00	< D.L.	9.00
Aralla 145	Bernesga Mb.	5.36	0.48	4.00	4.00	1.00	< D.L.	9.00
Aralla 146	Bernesga Mb.	5.12	0.47	4.00	4.00	1.00	< D.L.	9.00
Aralla 147	Bernesga Mb.	3.84	0.42	4.00	4.00	1.00	< D.L.	9.00
Aralla 148	Bernesga Mb.	4.09	0.43	4.00	4.00	1.00	< D.L.	9.00
Aralla 149	Bernesga Mb.	4.67	0.45	4.00	4.00	1.00	< D.L.	9.00
Aralla 150	Bernesga Mb.	4.52	0.45	4.00	4.00	1.00	< D.L.	9.00

1.7 Aralla 151 - 175

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
Aralla 151	Bernesga Mb.	< D.L.	< D.L.	38.97	38.97	38.97
Aralla 152	Bernesga Mb.	64.42	41.58	49.51	155.52	91.09
Aralla 153	Bernesga Mb.	62.26	27.72	43.87	133.85	71.59
Aralla 154	Bernesga Mb.	91.30	34.54	46.81	172.65	81.35
Aralla 155	Bernesga Mb.	71.36	34.61	44.47	150.44	79.08
Aralla 156	Bernesga Mb.	83.54	25.78	45.29	154.61	71.07
Aralla 157	Bernesga Mb.	91.54	24.20	43.40	159.14	67.60
Aralla 158	Bernesga Mb.	100.13	38.41	46.04	184.58	84.46
Aralla 159	Bernesga Mb.	74.04	35.86	46.89	156.79	82.76
Aralla 160	Bernesga Mb.	55.29	14.05	35.26	104.60	49.31
Aralla 161	Bernesga Mb.	84.53	< D.L.	49.21	133.74	49.21
Aralla 162	Bernesga Mb.	97.12	33.86	50.53	181.50	84.38
Aralla 163	Bernesga Mb.	103.67	37.00	48.99	189.66	85.99
Aralla 164	Bernesga Mb.	71.94	35.02	46.43	153.39	81.45
Aralla 165	Bernesga Mb.	68.41	46.21	48.12	162.74	94.34
Aralla 166	Bernesga Mb.	70.47	35.71	48.45	154.63	84.16
Aralla 167	Bernesga Mb.	81.84	32.18	48.40	162.42	80.58
Aralla 168	Bernesga Mb.	72.97	33.16	50.83	156.96	84.00
Aralla 169	Bernesga Mb.	90.45	34.54	48.70	173.68	83.23
Aralla 170	Bernesga Mb.	34.19	22.11	21.79	78.08	43.89
Aralla 171	Bernesga Mb.	81.77	< D.L.	46.67	128.45	46.67
Aralla 172	Bernesga Mb.	90.56	33.83	50.46	174.85	84.29
Aralla 173	Bernesga Mb.	69.02	39.56	48.28	156.86	87.84
Aralla 174	Bernesga Mb.	63.52	< D.L.	35.72	99.24	35.72
Aralla 175	Bernesga Mb.	77.18	35.36	49.83	162.37	85.19

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
Aralla 151	Bernesga Mb.	< D.L.	< D.L.	58.60	58.60	58.60
Aralla 152	Bernesga Mb.	77.04	65.48	74.46	216.98	139.94
Aralla 153	Bernesga Mb.	74.45	43.65	65.97	184.07	109.62
Aralla 154	Bernesga Mb.	109.17	54.39	70.40	233.96	124.79
Aralla 155	Bernesga Mb.	85.33	54.51	66.88	206.72	121.38
Aralla 156	Bernesga Mb.	99.89	40.60	68.10	208.60	108.70
Aralla 157	Bernesga Mb.	109.47	38.11	65.27	212.84	103.37
Aralla 158	Bernesga Mb.	119.73	60.49	69.24	249.47	129.73
Aralla 159	Bernesga Mb.	88.53	56.48	70.52	215.53	127.00
Aralla 160	Bernesga Mb.	66.12	22.12	53.02	141.26	75.14
Aralla 161	Bernesga Mb.	101.08	< D.L.	74.00	175.08	74.00
Aralla 162	Bernesga Mb.	116.13	53.32	75.98	245.43	129.30
Aralla 163	Bernesga Mb.	123.97	58.27	73.66	255.90	131.93
Aralla 164	Bernesga Mb.	86.03	55.15	69.82	210.99	124.96
Aralla 165	Bernesga Mb.	81.80	72.77	72.37	226.94	145.14
Aralla 166	Bernesga Mb.	84.27	56.24	72.86	213.36	129.10
Aralla 167	Bernesga Mb.	97.87	50.68	72.78	221.32	123.46
Aralla 168	Bernesga Mb.	87.25	52.23	76.44	215.92	128.67
Aralla 169	Bernesga Mb.	108.16	54.39	73.23	235.77	127.61
Aralla 170	Bernesga Mb.	40.88	34.81	32.76	108.46	67.58
Aralla 171	Bernesga Mb.	97.79	< D.L.	70.18	167.97	70.18
Aralla 172	Bernesga Mb.	108.29	53.28	75.88	237.45	129.16
Aralla 173	Bernesga Mb.	82.53	62.31	72.60	217.44	134.91
Aralla 174	Bernesga Mb.	75.96	< D.L.	53.72	129.68	53.72
Aralla 175	Bernesga Mb.	92.29	55.68	74.93	222.91	130.61

Sample	Formation	U	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al2O3*5	10Al2O3
Aralla 151	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	36.10	16.44	155.69	311.38
Aralla 152	Bernesga Mb.	9.63	96.30	192.60	4.17	3.29	4.41	36.76	5.69	152.67	305.34
Aralla 153	Bernesga Mb.	9.31	93.07	186.13	5.67	3.15	4.23	35.70	7.37	150.78	301.55
Aralla 154	Bernesga Mb.	13.65	136.47	272.93	9.11	4.67	6.26	35.18	6.68	146.38	292.76
Aralla 155	Bernesga Mb.	10.67	106.67	213.33	6.12	3.70	4.95	34.17	6.02	142.77	285.54
Aralla 156	Bernesga Mb.	12.49	124.87	249.73	9.10	4.32	5.79	36.40	6.71	153.43	306.85
Aralla 157	Bernesga Mb.	13.68	136.83	273.67	10.51	4.68	6.27	35.10	7.98	148.04	296.08
Aralla 158	Bernesga Mb.	14.97	149.67	299.33	9.93	5.04	6.75	36.78	6.76	154.87	309.73
Aralla 159	Bernesga Mb.	11.07	110.67	221.33	6.36	3.84	5.15	35.03	6.67	145.60	291.21
Aralla 160	Bernesga Mb.	8.27	82.65	165.30	6.42	2.68	3.60	30.05	7.53	127.66	255.32
Aralla 161	Bernesga Mb.	12.64	126.35	252.70	12.64	4.37	5.85	37.58	10.52	156.99	313.98
Aralla 162	Bernesga Mb.	14.52	145.17	290.33	10.07	4.92	6.59	37.40	7.06	155.25	310.50
Aralla 163	Bernesga Mb.	15.50	154.97	309.93	10.64	5.18	6.94	34.91	6.27	143.77	287.54
Aralla 164	Bernesga Mb.	10.75	107.53	215.07	6.16	3.73	4.99	33.63	6.55	138.88	277.76
Aralla 165	Bernesga Mb.	10.23	102.25	204.50	4.16	3.53	4.73	35.78	5.73	148.59	297.19
Aralla 166	Bernesga Mb.	10.53	105.33	210.67	5.85	3.65	4.88	36.40	6.68	151.52	303.03
Aralla 167	Bernesga Mb.	12.23	122.33	244.67	8.01	4.24	5.68	36.01	7.19	149.60	299.20
Aralla 168	Bernesga Mb.	10.91	109.07	218.13	6.55	3.78	5.07	36.66	6.60	151.38	302.77
Aralla 169	Bernesga Mb.	13.52	135.20	270.40	8.99	4.63	6.21	34.64	6.43	142.58	285.17
Aralla 170	Bernesga Mb.	5.11	51.10	102.20	2.21	0.78	1.04	22.18	4.93	96.43	192.85
Aralla 171	Bernesga Mb.	12.22	122.23	244.47	12.22	4.24	5.68	36.86	12.31	154.90	309.80
Aralla 172	Bernesga Mb.	13.54	135.37	270.73	9.10	4.64	6.22	39.01	6.86	163.36	326.72
Aralla 173	Bernesga Mb.	10.32	103.17	206.33	5.12	3.56	4.77	35.66	5.41	147.90	295.80
Aralla 174	Bernesga Mb.	9.50	94.95	189.90	9.50	3.23	4.33	32.66	10.10	140.48	280.96
Aralla 175	Bernesga Mb.	11.54	115.37	230.73	6.90	4.01	5.37	36.05	6.23	148.94	297.88

Sample	Formation	15Al2O3	Al2O3/10	K2O*5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	200TiO2	300TiO2	K2O/Al2O3
Aralla 151	Bernesga Mb.	467.07	3.11	18.31	0.41	12.23	65196.88	10.64	13.69	207.31	310.96	0.12
Aralla 152	Bernesga Mb.	458.00	3.05	23.27	< D.L.	12.31	-9180.97	3.12	4.02	235.20	352.80	0.15
Aralla 153	Bernesga Mb.	452.33	3.02	20.61	< D.L.	12.45	2935.82	4.28	5.51	228.02	342.03	0.14
Aralla 154	Bernesga Mb.	439.15	2.93	22.00	< D.L.	12.94	-1072.26	3.77	4.85	238.15	357.23	0.15
Aralla 155	Bernesga Mb.	428.31	2.86	20.90	< D.L.	10.86	-3274.87	3.45	4.44	228.86	343.28	0.15
Aralla 156	Bernesga Mb.	460.28	3.07	21.28	< D.L.	13.19	-2922.35	3.77	4.85	219.67	329.51	0.14
Aralla 157	Bernesga Mb.	444.12	2.96	20.40	< D.L.	14.02	6803.70	4.60	5.92	230.42	345.63	0.14
Aralla 158	Bernesga Mb.	464.60	3.10	21.64	< D.L.	18.63	-6718.99	3.43	4.41	237.23	355.84	0.14
Aralla 159	Bernesga Mb.	436.81	2.91	22.04	< D.L.	13.42	-1236.61	3.73	4.80	240.66	360.99	0.15
Aralla 160	Bernesga Mb.	382.98	2.55	16.57	< D.L.	10.88	11254.85	4.50	5.79	193.60	290.40	0.13
Aralla 161	Bernesga Mb.	470.97	3.14	23.12	< D.L.	13.78	22379.94	6.39	8.22	221.82	332.73	0.15
Aralla 162	Bernesga Mb.	465.76	3.11	23.74	< D.L.	21.29	-6624.43	3.45	4.43	233.88	350.82	0.15
Aralla 163	Bernesga Mb.	431.31	2.88	23.02	< D.L.	16.00	-5417.56	3.26	4.20	238.19	357.29	0.16
Aralla 164	Bernesga Mb.	416.63	2.78	21.82	< D.L.	17.55	-3244.30	3.35	4.31	228.03	342.04	0.16
Aralla 165	Bernesga Mb.	445.78	2.97	22.61	< D.L.	15.69	-10247.65	2.91	3.74	237.10	355.65	0.15
Aralla 166	Bernesga Mb.	454.55	3.03	22.77	< D.L.	15.16	-4002.42	3.61	4.64	238.52	357.78	0.15
Aralla 167	Bernesga Mb.	448.80	2.99	22.74	< D.L.	15.05	151.25	3.97	5.11	240.42	360.63	0.15
Aralla 168	Bernesga Mb.	454.15	3.03	23.89	< D.L.	13.73	-3494.17	3.66	4.70	242.91	364.36	0.16
Aralla 169	Bernesga Mb.	427.75	2.85	22.88	< D.L.	15.98	-3953.11	3.38	4.35	229.35	344.03	0.16
Aralla 170	Bernesga Mb.	289.28	1.93	10.24	< D.L.	10.14	1887.11	2.74	3.53	130.10	195.15	0.11
Aralla 171	Bernesga Mb.	464.69	3.10	21.93	< D.L.	14.67	34884.20	7.59	9.76	223.49	335.23	0.14
Aralla 172	Bernesga Mb.	490.07	3.27	23.71	< D.L.	15.81	-6329.79	3.69	4.75	246.98	370.48	0.15
Aralla 173	Bernesga Mb.	443.70	2.96	22.69	< D.L.	12.45	-9993.29	2.91	3.75	226.66	339.99	0.15
Aralla 174	Bernesga Mb.	421.44	2.81	16.79	< D.L.	< D.L.	33434.89	7.06	9.08	178.88	268.33	0.12
Aralla 175	Bernesga Mb.	446.82	2.98	23.42	< D.L.	13.05	-4974.10	3.44	4.43	231.79	347.69	0.16

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
Aralla 151	Bernesga Mb.	-0.93	0.04	1.18	0.20	0.35	2.83	-0.45	20.76
Aralla 152	Bernesga Mb.	-0.82	0.04	0.65	0.26	0.34	2.96	-0.47	19.45
Aralla 153	Bernesga Mb.	-0.86	0.04	0.79	0.27	0.35	2.90	-0.46	21.19
Aralla 154	Bernesga Mb.	-0.82	0.04	0.73	0.26	0.34	2.93	-0.47	19.52
Aralla 155	Bernesga Mb.	-0.83	0.04	0.69	0.30	0.34	2.91	-0.46	19.85
Aralla 156	Bernesga Mb.	-0.86	0.04	0.73	0.26	0.34	2.92	-0.46	21.02
Aralla 157	Bernesga Mb.	-0.86	0.05	0.82	0.25	0.35	2.89	-0.46	20.98
Aralla 158	Bernesga Mb.	-0.85	0.06	0.69	0.24	0.34	2.92	-0.47	20.93
Aralla 159	Bernesga Mb.	-0.82	0.05	0.73	0.27	0.34	2.93	-0.47	19.39
Aralla 160	Bernesga Mb.	-0.89	0.04	0.81	0.36	0.36	2.76	-0.44	21.29
Aralla 161	Bernesga Mb.	-0.83	0.04	0.96	0.21	0.34	2.96	-0.47	20.10
Aralla 162	Bernesga Mb.	-0.82	0.07	0.69	0.24	0.34	2.97	-0.47	19.45
Aralla 163	Bernesga Mb.	-0.80	0.06	0.67	0.27	0.34	2.96	-0.47	18.48
Aralla 164	Bernesga Mb.	-0.80	0.06	0.68	0.28	0.34	2.93	-0.47	18.65
Aralla 165	Bernesga Mb.	-0.82	0.05	0.62	0.27	0.34	2.95	-0.47	19.38
Aralla 166	Bernesga Mb.	-0.82	0.05	0.71	0.26	0.34	2.95	-0.47	19.65
Aralla 167	Bernesga Mb.	-0.82	0.05	0.75	0.25	0.34	2.95	-0.47	19.42
Aralla 168	Bernesga Mb.	-0.80	0.05	0.72	0.25	0.34	2.98	-0.47	18.87
Aralla 169	Bernesga Mb.	-0.79	0.06	0.68	0.27	0.34	2.96	-0.47	18.41
Aralla 170	Bernesga Mb.	-0.97	0.05	0.59	0.56	0.41	2.41	-0.38	22.74
Aralla 171	Bernesga Mb.	-0.85	0.05	1.04	0.20	0.34	2.93	-0.47	20.71
Aralla 172	Bernesga Mb.	-0.84	0.05	0.72	0.22	0.34	2.97	-0.47	20.49
Aralla 173	Bernesga Mb.	-0.81	0.04	0.62	0.29	0.34	2.95	-0.47	19.23
Aralla 174	Bernesga Mb.	-0.92	< D.L.	1.00	0.30	0.36	2.77	-0.44	23.20
Aralla 175	Bernesga Mb.	-0.80	0.04	0.69	0.28	0.34	2.97	-0.47	18.87

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
Aralla 151	Bernesga Mb.	1.50	5.16	16.44	1.57	0.20	0.64	0.49	32.77	0.00
Aralla 152	Bernesga Mb.	1.57	6.22	5.69	1.84	0.26	0.54	0.15	37.65	0.00
Aralla 153	Bernesga Mb.	1.42	5.55	7.37	1.84	0.27	0.54	0.20	35.85	0.00
Aralla 154	Bernesga Mb.	1.50	5.90	6.68	1.82	0.26	0.55	0.18	39.60	0.00
Aralla 155	Bernesga Mb.	1.44	5.62	6.02	1.98	0.30	0.51	0.17	37.97	0.00
Aralla 156	Bernesga Mb.	1.46	5.72	6.71	1.82	0.26	0.55	0.18	37.52	0.00
Aralla 157	Bernesga Mb.	1.41	5.49	7.98	1.78	0.25	0.56	0.22	39.06	0.00
Aralla 158	Bernesga Mb.	1.48	5.81	6.76	1.74	0.24	0.57	0.16	42.33	0.01
Aralla 159	Bernesga Mb.	1.50	5.91	6.67	1.86	0.27	0.54	0.18	38.95	0.00
Aralla 160	Bernesga Mb.	1.20	4.51	7.53	2.28	0.36	0.44	0.25	34.96	0.00
Aralla 161	Bernesga Mb.	1.56	6.19	10.52	1.64	0.21	0.61	0.29	36.44	0.00
Aralla 162	Bernesga Mb.	1.60	6.35	7.06	1.73	0.24	0.58	0.16	40.57	0.00
Aralla 163	Bernesga Mb.	1.56	6.16	6.27	1.87	0.27	0.54	0.16	40.94	0.00
Aralla 164	Bernesga Mb.	1.49	5.85	6.55	1.91	0.28	0.52	0.17	40.79	0.00
Aralla 165	Bernesga Mb.	1.53	6.06	5.73	1.86	0.27	0.54	0.14	41.72	0.01
Aralla 166	Bernesga Mb.	1.54	6.10	6.68	1.80	0.26	0.56	0.17	40.21	0.00
Aralla 167	Bernesga Mb.	1.54	6.09	7.19	1.77	0.25	0.56	0.19	40.46	0.00
Aralla 168	Bernesga Mb.	1.60	6.38	6.60	1.77	0.25	0.57	0.17	39.24	0.00
Aralla 169	Bernesga Mb.	1.55	6.13	6.43	1.87	0.27	0.53	0.17	40.42	0.00
Aralla 170	Bernesga Mb.	0.85	2.90	4.93	3.67	0.56	0.27	0.20	37.28	0.00
Aralla 171	Bernesga Mb.	1.50	5.88	12.31	1.58	0.20	0.63	0.35	35.96	0.00
Aralla 172	Bernesga Mb.	1.59	6.34	6.86	1.67	0.22	0.60	0.16	38.85	0.00
Aralla 173	Bernesga Mb.	1.54	6.08	5.41	1.95	0.29	0.51	0.14	36.74	0.00
Aralla 174	Bernesga Mb.	1.21	4.57	10.10	2.00	0.30	0.50	0.36	30.01	0.00
Aralla 175	Bernesga Mb.	1.58	6.26	6.23	1.89	0.28	0.53	0.17	36.42	0.00

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Ti Cal (ppm)	Zr/Sc	Cr/Th	Th/Sc
Aralla 151	Bernesga Mb.	30.04	0.06	342.71	0.17	202.79	0.80	0.75	1.17	< D.L.	< D.L.	< D.L.	6213.12	< D.L.	< D.L.	< D.L.
Aralla 152	Bernesga Mb.	25.96	0.06	334.45	< D.L.	167.67	0.31	0.65	1.00	< D.L.	< D.L.	5.46	7048.95	< D.L.	6.92	< D.L.
Aralla 153	Bernesga Mb.	26.45	0.06	363.74	0.55	175.49	0.53	0.65	1.03	< D.L.	< D.L.	3.64	6833.82	< D.L.	8.77	< D.L.
Aralla 154	Bernesga Mb.	24.59	0.06	368.78	0.48	196.31	0.43	0.65	1.13	< D.L.	< D.L.	4.53	7137.51	< D.L.	8.31	< D.L.
Aralla 155	Bernesga Mb.	24.95	0.05	321.95	1.01	182.58	0.39	0.68	1.18	< D.L.	< D.L.	4.54	6858.91	< D.L.	7.97	< D.L.
Aralla 156	Bernesga Mb.	27.94	0.06	359.72	0.54	203.37	0.55	0.68	1.08	< D.L.	< D.L.	3.38	6583.62	< D.L.	10.72	< D.L.
Aralla 157	Bernesga Mb.	25.70	0.06	340.75	0.39	196.50	0.48	0.63	1.26	< D.L.	< D.L.	3.18	6905.82	< D.L.	10.50	< D.L.
Aralla 158	Bernesga Mb.	26.11	0.06	336.29	0.37	215.20	0.53	0.63	1.05	< D.L.	< D.L.	5.04	7109.85	< D.L.	7.58	< D.L.
Aralla 159	Bernesga Mb.	24.20	0.06	340.32	0.53	192.98	0.45	0.66	1.04	< D.L.	< D.L.	4.71	7212.70	< D.L.	8.05	< D.L.
Aralla 160	Bernesga Mb.	26.38	0.06	356.03	0.25	138.83	0.50	0.61	1.19	< D.L.	< D.L.	1.84	5802.25	< D.L.	12.70	< D.L.
Aralla 161	Bernesga Mb.	28.31	0.06	360.42	0.31	213.37	0.59	0.62	1.09	< D.L.	< D.L.	< D.L.	6648.12	< D.L.	< D.L.	< D.L.
Aralla 162	Bernesga Mb.	26.55	0.06	360.80	0.17	249.28	0.69	0.60	1.00	< D.L.	8.89	4.44	7009.55	6.34	8.67	0.61
Aralla 163	Bernesga Mb.	24.14	0.06	344.12	0.35	217.91	0.49	0.64	1.06	< D.L.	8.83	4.86	7138.69	6.75	8.32	0.65
Aralla 164	Bernesga Mb.	24.36	0.06	346.32	0.45	203.11	0.57	0.59	0.96	< D.L.	< D.L.	4.60	6834.01	< D.L.	7.61	< D.L.
Aralla 165	Bernesga Mb.	25.07	0.06	361.18	0.70	204.73	0.46	0.64	0.98	< D.L.	9.01	6.06	7105.99	7.14	6.63	0.89
Aralla 166	Bernesga Mb.	25.41	0.06	356.87	0.54	187.55	0.36	0.65	1.03	< D.L.	9.64	4.69	7148.54	7.46	8.46	0.72
Aralla 167	Bernesga Mb.	24.89	0.06	337.58	0.43	202.43	0.49	0.62	0.99	< D.L.	< D.L.	4.22	7205.55	< D.L.	8.94	< D.L.
Aralla 168	Bernesga Mb.	24.93	0.06	349.44	0.51	178.78	0.35	0.57	1.08	< D.L.	< D.L.	4.35	7280.06	< D.L.	8.22	< D.L.
Aralla 169	Bernesga Mb.	24.87	0.06	350.69	0.25	201.14	0.48	0.63	0.97	< D.L.	8.24	4.53	6873.76	6.96	8.51	0.62
Aralla 170	Bernesga Mb.	29.65	0.06	351.20	< D.L.	82.50	0.39	0.62	1.20	< D.L.	< D.L.	2.90	3899.16	< D.L.	5.42	< D.L.
Aralla 171	Bernesga Mb.	27.72	0.06	386.81	0.34	214.17	0.71	0.59	1.09	< D.L.	< D.L.	< D.L.	6698.02	< D.L.	< D.L.	< D.L.
Aralla 172	Bernesga Mb.	26.46	0.06	344.48	0.57	187.82	0.36	0.65	1.01	< D.L.	< D.L.	4.44	7402.22	< D.L.	9.04	< D.L.
Aralla 173	Bernesga Mb.	26.10	0.06	348.47	< D.L.	146.50	0.28	0.61	0.94	< D.L.	< D.L.	5.19	6793.17	< D.L.	6.58	< D.L.
Aralla 174	Bernesga Mb.	31.41	0.06	358.16	0.47	159.95	0.71	0.73	1.20	< D.L.	< D.L.	< D.L.	5361.25	< D.L.	< D.L.	< D.L.
Aralla 175	Bernesga Mb.	25.70	0.06	357.71	0.75	185.96	0.51	0.61	0.93	< D.L.	< D.L.	4.64	6946.95	< D.L.	7.51	< D.L.

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
Aralla 151	Bernesga Mb.	1.19	0.84	0.02	7.88	1.58	6.22	< D.L.	0.65	1.55
Aralla 152	Bernesga Mb.	1.28	0.78	0.03	10.60	1.97	1.82	< D.L.	0.65	1.55
Aralla 153	Bernesga Mb.	1.36	0.73	0.03	10.71	2.10	3.20	< D.L.	0.63	1.59
Aralla 154	Bernesga Mb.	0.88	1.14	0.02	7.92	1.36	2.61	< D.L.	0.58	1.74
Aralla 155	Bernesga Mb.	1.15	0.87	0.03	8.58	1.68	2.07	< D.L.	0.58	1.72
Aralla 156	Bernesga Mb.	0.96	1.04	0.02	8.36	1.41	2.38	< D.L.	0.63	1.58
Aralla 157	Bernesga Mb.	0.93	1.08	0.02	7.28	1.47	3.29	< D.L.	0.50	2.00
Aralla 158	Bernesga Mb.	0.83	1.21	0.02	7.18	1.33	2.08	< D.L.	0.60	1.67
Aralla 159	Bernesga Mb.	0.96	1.04	0.02	7.80	1.45	2.53	< D.L.	0.64	1.56
Aralla 160	Bernesga Mb.	1.57	0.64	0.03	11.16	2.59	3.48	< D.L.	0.51	1.97
Aralla 161	Bernesga Mb.	0.76	1.32	0.02	6.91	1.22	4.09	< D.L.	0.57	1.76
Aralla 162	Bernesga Mb.	0.71	1.40	0.02	7.08	1.19	2.38	< D.L.	0.60	1.67
Aralla 163	Bernesga Mb.	0.81	1.24	0.02	7.35	1.26	2.13	< D.L.	0.61	1.64
Aralla 164	Bernesga Mb.	0.88	1.14	0.02	7.90	1.49	2.14	< D.L.	0.61	1.63
Aralla 165	Bernesga Mb.	0.78	1.29	0.02	7.44	1.21	2.93	< D.L.	0.65	1.53
Aralla 166	Bernesga Mb.	0.80	1.25	0.02	7.29	1.23	2.35	< D.L.	0.63	1.59
Aralla 167	Bernesga Mb.	0.81	1.23	0.02	7.02	1.32	2.71	< D.L.	0.62	1.61
Aralla 168	Bernesga Mb.	0.77	1.30	0.02	6.91	1.34	2.63	< D.L.	0.53	1.89
Aralla 169	Bernesga Mb.	0.82	1.22	0.02	7.73	1.31	2.26	< D.L.	0.65	1.55
Aralla 170	Bernesga Mb.	3.10	0.32	0.06	21.34	5.03	0.50	< D.L.	0.52	1.94
Aralla 171	Bernesga Mb.	0.79	1.27	0.02	7.18	1.34	4.69	< D.L.	0.54	1.85
Aralla 172	Bernesga Mb.	0.83	1.21	0.02	7.11	1.27	2.32	< D.L.	0.65	1.54
Aralla 173	Bernesga Mb.	1.23	0.81	0.03	10.50	2.00	1.83	< D.L.	0.65	1.53
Aralla 174	Bernesga Mb.	1.76	0.57	0.03	11.84	2.40	5.20	< D.L.	0.61	1.64
Aralla 175	Bernesga Mb.	1.13	0.88	0.03	9.94	1.85	2.80	< D.L.	0.66	1.52

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
Aralla 151	Bernesga Mb.	2.76	< D.L.	8.49	12.22	< D.L.	2.08	6.82	5.48
Aralla 152	Bernesga Mb.	0.86	0.60	10.85	< D.L.	< D.L.	1.31	3.36	7.01
Aralla 153	Bernesga Mb.	1.83	0.58	9.51	2.46	< D.L.	1.35	5.00	6.00
Aralla 154	Bernesga Mb.	1.11	0.88	12.65	2.87	< D.L.	1.38	5.38	7.29
Aralla 155	Bernesga Mb.	1.02	0.71	12.38	2.40	< D.L.	2.42	4.89	7.19
Aralla 156	Bernesga Mb.	0.94	0.77	10.61	2.96	< D.L.	1.60	5.82	6.70
Aralla 157	Bernesga Mb.	1.30	0.87	12.80	3.75	< D.L.	1.47	6.16	6.38
Aralla 158	Bernesga Mb.	0.96	0.91	11.69	4.50	< D.L.	1.67	6.14	6.99
Aralla 159	Bernesga Mb.	1.06	0.72	11.53	3.40	< D.L.	1.78	5.14	7.38
Aralla 160	Bernesga Mb.	1.60	0.61	10.24	11.00	< D.L.	2.71	5.08	5.20
Aralla 161	Bernesga Mb.	1.89	0.76	11.03	6.75	< D.L.	2.06	6.55	6.29
Aralla 162	Bernesga Mb.	0.83	0.88	11.74	8.81	< D.L.	1.47	8.13	7.03
Aralla 163	Bernesga Mb.	0.77	1.02	13.10	4.35	2.52	1.50	6.35	7.96
Aralla 164	Bernesga Mb.	0.89	0.73	11.63	5.04	< D.L.	2.29	6.68	7.14
Aralla 165	Bernesga Mb.	0.66	0.65	11.75	2.92	1.96	2.05	5.34	7.67
Aralla 166	Bernesga Mb.	0.94	0.66	11.77	3.11	< D.L.	1.67	4.28	7.41
Aralla 167	Bernesga Mb.	1.02	0.77	11.49	3.70	< D.L.	1.59	5.63	7.15
Aralla 168	Bernesga Mb.	0.97	0.68	12.67	3.48	< D.L.	1.78	4.46	6.69
Aralla 169	Bernesga Mb.	0.79	0.90	11.89	7.72	< D.L.	1.96	5.66	7.67
Aralla 170	Bernesga Mb.	0.82	0.50	8.95	< D.L.	< D.L.	1.79	3.47	4.62
Aralla 171	Bernesga Mb.	2.22	0.75	10.47	4.95	< D.L.	1.66	7.39	5.67
Aralla 172	Bernesga Mb.	0.87	0.78	10.73	2.19	< D.L.	1.26	3.90	6.96
Aralla 173	Bernesga Mb.	0.86	0.66	10.03	< D.L.	< D.L.	1.57	2.81	6.55
Aralla 174	Bernesga Mb.	2.35	0.64	8.14	5.56	< D.L.	2.63	5.79	4.97
Aralla 175	Bernesga Mb.	0.77	0.73	10.05	2.28	2.98	1.71	5.17	6.63

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
Aralla 151	Bernesga Mb.	< D.L.	10.42	38.16	45.30	8.67	0.55	26.08	< D.L.
Aralla 152	Bernesga Mb.	< D.L.	10.94	27.25	19.69	13.82	0.76	18.62	< D.L.
Aralla 153	Bernesga Mb.	< D.L.	11.09	27.57	29.63	12.61	0.66	18.84	< D.L.
Aralla 154	Bernesga Mb.	< D.L.	11.54	28.41	29.39	9.89	0.70	19.41	< D.L.
Aralla 155	Bernesga Mb.	< D.L.	11.73	29.45	21.68	12.09	0.72	20.13	< D.L.
Aralla 156	Bernesga Mb.	< D.L.	10.82	27.21	23.36	9.42	0.65	18.60	< D.L.
Aralla 157	Bernesga Mb.	< D.L.	11.24	29.05	33.48	9.41	0.68	19.85	< D.L.
Aralla 158	Bernesga Mb.	< D.L.	10.89	27.83	23.25	9.26	0.66	19.02	< D.L.
Aralla 159	Bernesga Mb.	< D.L.	11.63	29.96	28.19	10.72	0.69	20.47	< D.L.
Aralla 160	Bernesga Mb.	< D.L.	12.60	42.67	29.84	13.45	0.67	29.16	< D.L.
Aralla 161	Bernesga Mb.	< D.L.	10.58	54.11	41.49	7.67	0.63	36.98	< D.L.
Aralla 162	Bernesga Mb.	< D.L.	10.83	28.36	27.86	8.37	0.59	19.38	< D.L.
Aralla 163	Bernesga Mb.	< D.L.	11.72	29.87	26.33	10.02	0.67	20.41	< D.L.
Aralla 164	Bernesga Mb.	< D.L.	12.02	31.60	25.91	10.60	0.64	21.60	< D.L.
Aralla 165	Bernesga Mb.	< D.L.	11.37	28.24	35.12	9.31	0.69	19.30	< D.L.
Aralla 166	Bernesga Mb.	< D.L.	11.19	27.99	26.84	9.10	0.73	19.13	< D.L.
Aralla 167	Bernesga Mb.	< D.L.	11.26	27.71	31.46	9.47	0.67	18.93	< D.L.
Aralla 168	Bernesga Mb.	< D.L.	11.19	27.29	30.71	8.98	0.74	18.65	< D.L.
Aralla 169	Bernesga Mb.	< D.L.	11.79	30.43	27.75	10.04	0.68	20.79	< D.L.
Aralla 170	Bernesga Mb.	< D.L.	16.00	42.61	3.74	23.22	0.72	29.12	< D.L.
Aralla 171	Bernesga Mb.	< D.L.	10.67	28.09	45.12	7.58	0.59	19.19	< D.L.
Aralla 172	Bernesga Mb.	< D.L.	10.35	25.76	24.73	8.83	0.73	17.60	< D.L.
Aralla 173	Bernesga Mb.	< D.L.	11.24	27.97	19.53	13.07	0.78	19.11	< D.L.
Aralla 174	Bernesga Mb.	< D.L.	11.36	30.09	35.26	11.92	0.58	20.57	< D.L.
Aralla 175	Bernesga Mb.	< D.L.	11.22	27.85	30.33	12.25	0.66	19.03	< D.L.

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
Aralla 151	Bernesga Mb.	< D.L.	< D.L.	1.53	< D.L.	< D.L.	4.15	0.62	4.55	0.01	0.08	0.82
Aralla 152	Bernesga Mb.	1.70	0.59	2.26	23.20	< D.L.	0.96	-0.02	1.38	0.01	< D.L.	< D.L.
Aralla 153	Bernesga Mb.	1.17	0.85	1.97	21.63	< D.L.	1.49	0.17	2.92	0.01	0.07	0.65
Aralla 154	Bernesga Mb.	1.00	1.00	1.83	11.23	< D.L.	1.22	0.09	1.72	0.01	< D.L.	< D.L.
Aralla 155	Bernesga Mb.	1.28	0.78	1.93	17.13	< D.L.	1.18	0.07	1.54	0.01	< D.L.	< D.L.
Aralla 156	Bernesga Mb.	0.81	1.23	1.78	12.26	< D.L.	1.27	0.10	1.53	0.01	0.03	0.29
Aralla 157	Bernesga Mb.	0.70	1.44	1.74	10.78	< D.L.	1.61	0.21	2.04	0.01	< D.L.	< D.L.
Aralla 158	Bernesga Mb.	1.01	0.99	1.88	10.15	< D.L.	1.13	0.05	1.57	0.01	0.44	4.40
Aralla 159	Bernesga Mb.	1.28	0.78	1.88	14.93	< D.L.	1.21	0.08	1.63	0.01	< D.L.	< D.L.
Aralla 160	Bernesga Mb.	0.67	1.49	1.75	22.00	< D.L.	1.94	0.29	2.16	0.01	< D.L.	< D.L.
Aralla 161	Bernesga Mb.	< D.L.	< D.L.	1.68	10.08	< D.L.	1.98	0.30	3.13	0.01	0.03	0.31
Aralla 162	Bernesga Mb.	0.92	1.09	1.86	9.48	< D.L.	1.04	0.02	1.37	0.01	0.27	2.70
Aralla 163	Bernesga Mb.	0.94	1.06	1.91	9.84	0.40	1.01	0.01	1.17	0.01	0.33	3.26
Aralla 164	Bernesga Mb.	1.28	0.78	1.89	14.50	< D.L.	1.10	0.04	1.31	0.01	0.40	4.02
Aralla 165	Bernesga Mb.	1.78	0.56	1.87	14.32	0.33	0.92	-0.04	1.04	0.01	0.05	0.55
Aralla 166	Bernesga Mb.	1.33	0.75	1.83	13.86	< D.L.	1.13	0.05	1.51	0.01	< D.L.	< D.L.
Aralla 167	Bernesga Mb.	1.04	0.97	1.87	12.25	< D.L.	1.25	0.10	1.61	0.01	< D.L.	< D.L.
Aralla 168	Bernesga Mb.	1.20	0.84	1.85	13.19	< D.L.	1.09	0.04	1.55	0.01	0.05	0.50
Aralla 169	Bernesga Mb.	1.01	0.99	1.89	11.21	< D.L.	1.06	0.02	1.19	0.01	0.30	3.04
Aralla 170	Bernesga Mb.	1.70	0.59	1.92	46.37	< D.L.	1.91	0.28	0.84	0.00	0.03	0.33
Aralla 171	Bernesga Mb.	< D.L.	< D.L.	1.61	10.17	< D.L.	2.47	0.39	3.64	0.01	0.05	0.52
Aralla 172	Bernesga Mb.	0.98	1.02	1.88	11.29	< D.L.	1.11	0.05	1.50	0.01	< D.L.	< D.L.
Aralla 173	Bernesga Mb.	1.51	0.66	2.11	19.83	< D.L.	0.92	-0.04	1.34	0.01	< D.L.	< D.L.
Aralla 174	Bernesga Mb.	< D.L.	< D.L.	1.65	18.67	< D.L.	3.01	0.48	3.49	0.01	0.04	0.43
Aralla 175	Bernesga Mb.	1.21	0.83	2.06	16.74	0.25	1.05	0.02	1.21	0.01	< D.L.	< D.L.

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	V (wt%)	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
Aralla 151	Bernesga Mb.	1641.19	0.12	0.16	< D.L.	0.01	6.30	14.29	393533.96	1467.50	-3.43
Aralla 152	Bernesga Mb.	< D.L.	< D.L.	< D.L.	4.17	0.02	7.16	22.34	423749.90	755.57	-25.73
Aralla 153	Bernesga Mb.	1301.29	0.10	0.13	5.67	0.02	6.93	20.13	419599.04	1014.03	-21.74
Aralla 154	Bernesga Mb.	< D.L.	< D.L.	< D.L.	9.11	0.02	7.25	15.32	403829.44	1047.13	-22.31
Aralla 155	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.12	0.02	6.97	18.28	414898.08	1104.53	-22.44
Aralla 156	Bernesga Mb.	577.99	0.04	0.06	9.10	0.02	6.69	15.30	424109.16	1205.63	-23.93
Aralla 157	Bernesga Mb.	< D.L.	< D.L.	< D.L.	10.51	0.02	7.01	14.75	402858.30	1194.67	-20.15
Aralla 158	Bernesga Mb.	8792.67	0.66	0.88	9.93	0.02	7.22	15.19	416153.62	1279.30	-25.31
Aralla 159	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.36	0.02	7.33	16.52	407444.34	1067.60	-22.24
Aralla 160	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.42	0.01	5.87	18.18	407818.04	1051.53	-15.73
Aralla 161	Bernesga Mb.	615.62	0.05	0.06	12.64	0.02	6.75	12.74	406185.39	1431.30	-16.73
Aralla 162	Bernesga Mb.	5394.58	0.40	0.54	10.07	0.02	7.13	13.76	415301.00	1578.93	-25.34
Aralla 163	Bernesga Mb.	6517.31	0.49	0.65	10.64	0.02	7.26	15.25	403335.74	1195.80	-23.25
Aralla 164	Bernesga Mb.	8031.72	0.60	0.80	6.16	0.02	6.94	15.59	394796.20	1317.50	-21.85
Aralla 165	Bernesga Mb.	1093.16	0.08	0.11	4.16	0.02	7.23	14.64	415258.07	1162.33	-25.45
Aralla 166	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.85	0.02	7.27	14.60	415247.99	953.57	-23.98
Aralla 167	Bernesga Mb.	< D.L.	< D.L.	< D.L.	8.01	0.02	7.32	14.99	406009.42	1143.53	-22.42
Aralla 168	Bernesga Mb.	991.01	0.07	0.10	6.55	0.02	7.39	14.39	410542.96	1000.80	-23.80
Aralla 169	Bernesga Mb.	6078.05	0.46	0.61	8.99	0.02	6.99	15.15	400407.05	1149.07	-22.62
Aralla 170	Bernesga Mb.	669.73	0.05	0.07	2.21	0.01	3.95	23.69	433064.38	536.77	-13.90
Aralla 171	Bernesga Mb.	1035.42	0.08	0.10	12.22	0.02	6.79	12.43	392935.61	1483.70	-12.59
Aralla 172	Bernesga Mb.	< D.L.	< D.L.	< D.L.	9.10	0.02	7.52	15.28	428261.70	892.20	-26.47
Aralla 173	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.12	0.02	6.90	20.46	426728.40	685.93	-25.27
Aralla 174	Bernesga Mb.	851.67	0.06	0.09	9.50	0.01	5.44	17.72	410818.30	1251.83	-10.86
Aralla 175	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.90	0.02	7.05	19.31	420728.89	1085.00	-23.89

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
Aralla 151	Bernesga Mb.	-1.60	16.81	7.43	-0.28	94.82	95.40
Aralla 152	Bernesga Mb.	-12.02	16.49	-3.17	0.79	94.28	95.11
Aralla 153	Bernesga Mb.	-10.16	16.28	-1.41	0.88	94.82	95.49
Aralla 154	Bernesga Mb.	-10.42	15.81	-1.93	0.84	94.31	95.13
Aralla 155	Bernesga Mb.	-10.49	15.42	-2.21	0.83	94.43	95.20
Aralla 156	Bernesga Mb.	-11.18	16.57	-2.28	0.83	94.76	95.46
Aralla 157	Bernesga Mb.	-9.41	15.99	-0.83	0.92	94.76	95.45
Aralla 158	Bernesga Mb.	-11.83	16.73	-2.84	0.81	94.74	95.44
Aralla 159	Bernesga Mb.	-10.39	15.73	-1.95	0.84	94.27	95.10
Aralla 160	Bernesga Mb.	-7.35	13.79	0.06	1.01	94.88	95.51
Aralla 161	Bernesga Mb.	-7.82	16.95	1.29	1.20	94.49	95.26
Aralla 162	Bernesga Mb.	-11.84	16.77	-2.84	0.81	94.28	95.11
Aralla 163	Bernesga Mb.	-10.86	15.53	-2.52	0.81	93.95	94.87
Aralla 164	Bernesga Mb.	-10.21	15.00	-2.15	0.83	94.02	94.91
Aralla 165	Bernesga Mb.	-11.89	16.05	-3.27	0.78	94.26	95.09
Aralla 166	Bernesga Mb.	-11.20	16.36	-2.42	0.82	94.35	95.16
Aralla 167	Bernesga Mb.	-10.48	16.16	-1.80	0.85	94.27	95.10
Aralla 168	Bernesga Mb.	-11.12	16.35	-2.34	0.83	94.08	94.97
Aralla 169	Bernesga Mb.	-10.57	15.40	-2.30	0.82	93.92	94.85
Aralla 170	Bernesga Mb.	-6.50	10.41	-0.90	0.88	95.31	95.79
Aralla 171	Bernesga Mb.	-5.88	16.73	3.10	2.12	94.67	95.39
Aralla 172	Bernesga Mb.	-12.37	17.64	-2.89	0.81	94.60	95.35
Aralla 173	Bernesga Mb.	-11.81	15.97	-3.23	0.79	94.21	95.06
Aralla 174	Bernesga Mb.	-5.08	15.17	3.07	2.53	95.33	95.87
Aralla 175	Bernesga Mb.	-11.16	16.09	-2.52	0.82	94.09	94.97

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
Aralla 151	Bernesga Mb.	85.78	14.02	-3.64	14.04
Aralla 152	Bernesga Mb.	83.07	4.03	0.59	4.06
Aralla 153	Bernesga Mb.	84.47	5.67	-0.70	5.70
Aralla 154	Bernesga Mb.	83.23	4.12	-0.18	4.15
Aralla 155	Bernesga Mb.	83.56	3.97	-0.24	4.00
Aralla 156	Bernesga Mb.	84.30	5.25	-0.38	5.28
Aralla 157	Bernesga Mb.	84.36	5.47	-1.09	5.50
Aralla 158	Bernesga Mb.	84.21	4.01	-0.71	4.04
Aralla 159	Bernesga Mb.	83.13	3.88	-0.22	3.91
Aralla 160	Bernesga Mb.	84.98	4.52	-2.25	4.55
Aralla 161	Bernesga Mb.	83.54	8.03	-0.76	8.06
Aralla 162	Bernesga Mb.	83.03	3.25	-0.37	3.28
Aralla 163	Bernesga Mb.	82.36	2.57	-0.07	2.60
Aralla 164	Bernesga Mb.	82.59	2.19	-0.74	2.22
Aralla 165	Bernesga Mb.	83.07	2.92	0.03	2.94
Aralla 166	Bernesga Mb.	83.25	4.07	-0.07	4.10
Aralla 167	Bernesga Mb.	83.09	4.24	-0.22	4.27
Aralla 168	Bernesga Mb.	82.59	4.04	0.43	4.07
Aralla 169	Bernesga Mb.	82.32	2.66	-0.19	2.69
Aralla 170	Bernesga Mb.	86.94	0.85	-4.07	0.87
Aralla 171	Bernesga Mb.	84.04	9.19	-1.68	9.21
Aralla 172	Bernesga Mb.	83.75	5.22	0.30	5.25
Aralla 173	Bernesga Mb.	82.96	3.40	0.39	3.43
Aralla 174	Bernesga Mb.	86.01	10.57	-1.71	10.59
Aralla 175	Bernesga Mb.	82.63	3.81	0.38	3.84

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
Aralla 151	Bernesga Mb.	-2.20	4.12	-63.87	0.67
Aralla 152	Bernesga Mb.	2.23	4.73	-46.52	0.87
Aralla 153	Bernesga Mb.	0.78	4.56	-48.52	0.83
Aralla 154	Bernesga Mb.	1.38	4.72	-45.95	0.84
Aralla 155	Bernesga Mb.	1.26	4.59	-45.87	0.85
Aralla 156	Bernesga Mb.	1.15	4.68	-47.74	0.85
Aralla 157	Bernesga Mb.	0.38	4.65	-47.63	0.82
Aralla 158	Bernesga Mb.	0.84	4.81	-45.54	0.86
Aralla 159	Bernesga Mb.	1.35	4.67	-46.10	0.84
Aralla 160	Bernesga Mb.	-1.00	4.33	-46.77	0.80
Aralla 161	Bernesga Mb.	0.87	4.47	-54.12	0.77
Aralla 162	Bernesga Mb.	1.30	4.94	-46.10	0.86
Aralla 163	Bernesga Mb.	1.55	4.82	-44.55	0.86
Aralla 164	Bernesga Mb.	0.81	4.86	-43.49	0.85
Aralla 165	Bernesga Mb.	1.63	4.80	-44.54	0.88
Aralla 166	Bernesga Mb.	1.54	4.74	-46.66	0.85
Aralla 167	Bernesga Mb.	1.39	4.76	-46.84	0.84
Aralla 168	Bernesga Mb.	2.10	4.78	-46.88	0.85
Aralla 169	Bernesga Mb.	1.42	4.86	-44.64	0.85
Aralla 170	Bernesga Mb.	-3.19	4.07	-42.07	0.83
Aralla 171	Bernesga Mb.	-0.12	4.57	-55.94	0.74
Aralla 172	Bernesga Mb.	1.97	4.75	-48.40	0.86
Aralla 173	Bernesga Mb.	1.99	4.69	-46.01	0.88
Aralla 174	Bernesga Mb.	-0.45	4.14	-55.71	0.73
Aralla 175	Bernesga Mb.	2.03	4.71	-47.16	0.86

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
Aralla 151	Bernesga Mb.	14.68	0.73	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 152	Bernesga Mb.	3.80	0.43	4.00	4.00	1.00	< D.L.	9.00
Aralla 153	Bernesga Mb.	5.37	0.47	4.00	4.00	1.00	< D.L.	9.00
Aralla 154	Bernesga Mb.	4.52	0.47	4.00	4.00	1.00	< D.L.	9.00
Aralla 155	Bernesga Mb.	4.31	0.45	4.00	4.00	1.00	< D.L.	9.00
Aralla 156	Bernesga Mb.	4.90	0.44	4.00	4.00	1.00	< D.L.	9.00
Aralla 157	Bernesga Mb.	5.71	0.50	4.00	4.00	1.00	< D.L.	9.00
Aralla 158	Bernesga Mb.	4.13	0.45	4.00	4.00	1.00	< D.L.	9.00
Aralla 159	Bernesga Mb.	4.43	0.48	4.00	4.00	1.00	< D.L.	9.00
Aralla 160	Bernesga Mb.	6.65	0.51	4.00	4.00	1.00	< D.L.	9.00
Aralla 161	Bernesga Mb.	8.24	0.57	4.00	4.00	1.00	< D.L.	9.00
Aralla 162	Bernesga Mb.	4.21	0.47	4.00	4.00	1.00	< D.L.	9.00
Aralla 163	Bernesga Mb.	3.92	0.48	4.00	4.00	1.00	< D.L.	9.00
Aralla 164	Bernesga Mb.	4.20	0.49	4.00	4.00	1.00	< D.L.	9.00
Aralla 165	Bernesga Mb.	3.51	0.44	4.00	4.00	1.00	< D.L.	9.00
Aralla 166	Bernesga Mb.	4.33	0.46	4.00	4.00	1.00	< D.L.	9.00
Aralla 167	Bernesga Mb.	4.73	0.49	4.00	4.00	1.00	< D.L.	9.00
Aralla 168	Bernesga Mb.	4.30	0.47	4.00	4.00	1.00	< D.L.	9.00
Aralla 169	Bernesga Mb.	4.21	0.48	4.00	4.00	1.00	< D.L.	9.00
Aralla 170	Bernesga Mb.	6.02	0.44	1.00	4.00	1.00	< D.L.	6.00
Aralla 171	Bernesga Mb.	9.71	0.63	4.00	4.00	1.00	< D.L.	9.00
Aralla 172	Bernesga Mb.	4.27	0.44	4.00	4.00	1.00	< D.L.	9.00
Aralla 173	Bernesga Mb.	3.68	0.43	4.00	4.00	1.00	< D.L.	9.00
Aralla 174	Bernesga Mb.	11.29	0.56	4.00	4.00	1.00	< D.L.	9.00
Aralla 175	Bernesga Mb.	4.25	0.46	4.00	4.00	1.00	< D.L.	9.00

1.8 Aralla 176 - 200

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
Aralla 176	Bernesga Mb.	100.35	36.46	47.90	184.71	84.36
Aralla 177	Bernesga Mb.	< D.L.	< D.L.	37.75	37.75	37.75
Aralla 178	Bernesga Mb.	< D.L.	< D.L.	34.33	34.33	34.33
Aralla 179	Bernesga Mb.	55.66	30.80	44.73	131.19	75.53
Aralla 180	Bernesga Mb.	85.10	36.55	48.04	169.68	84.59
Aralla 181	Bernesga Mb.	69.98	< D.L.	45.65	115.63	45.65
Aralla 182	Bernesga Mb.	77.47	30.38	47.96	155.81	78.34
Aralla 183	Bernesga Mb.	54.23	22.48	43.24	119.95	65.72
Aralla 184	Bernesga Mb.	72.88	30.25	50.84	153.97	81.09
Aralla 185	Villasimpliz Mb.	< D.L.	9.02	13.65	22.67	22.67
Aralla 186	Villasimpliz Mb.	52.45	13.30	31.22	96.97	44.52
Aralla 187	Villasimpliz Mb.	69.51	23.26	44.57	137.34	67.83
Aralla 188	Villasimpliz Mb.	< D.L.	< D.L.	12.21	12.21	12.21
Aralla 189	Villasimpliz Mb.	< D.L.	< D.L.	11.49	11.49	11.49
Aralla 190	Villasimpliz Mb.	< D.L.	17.48	26.93	44.42	44.42
Aralla 191	Villasimpliz Mb.	< D.L.	< D.L.	9.21	9.21	9.21
Aralla 192	Villasimpliz Mb.	41.34	< D.L.	16.73	58.07	16.73
Aralla 193	Villasimpliz Mb.	64.51	26.78	47.32	138.62	74.10
Aralla 194	Villasimpliz Mb.	96.80	34.51	52.10	183.42	86.61
Aralla 195	Villasimpliz Mb.	71.32	< D.L.	52.46	123.78	52.46
Aralla 196	Villasimpliz Mb.	80.10	< D.L.	50.70	130.80	50.70
Aralla 197	Villasimpliz Mb.	45.09	13.92	24.13	83.14	38.05
Aralla 198	Villasimpliz Mb.	46.60	15.32	24.55	86.46	39.86
Aralla 199	Villasimpliz Mb.	84.14	23.32	63.61	171.07	86.93
Aralla 200	Villasimpliz Mb.	< D.L.	< D.L.	14.44	14.44	14.44

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
Aralla 176	Bernesga Mb.	120.00	57.41	72.03	249.45	129.45
Aralla 177	Bernesga Mb.	< D.L.	< D.L.	56.76	56.76	56.76
Aralla 178	Bernesga Mb.	< D.L.	< D.L.	51.62	51.62	51.62
Aralla 179	Bernesga Mb.	66.56	48.51	67.26	182.33	115.77
Aralla 180	Bernesga Mb.	101.76	57.56	72.24	231.56	129.80
Aralla 181	Bernesga Mb.	83.68	< D.L.	68.64	152.32	68.64
Aralla 182	Bernesga Mb.	92.64	47.84	72.12	212.60	119.96
Aralla 183	Bernesga Mb.	64.85	35.40	65.02	165.28	100.42
Aralla 184	Bernesga Mb.	87.15	47.64	76.45	211.24	124.09
Aralla 185	Villasimpliz Mb.	< D.L.	14.20	20.53	34.73	34.73
Aralla 186	Villasimpliz Mb.	62.72	20.94	46.95	130.61	67.89
Aralla 187	Villasimpliz Mb.	83.12	36.63	67.02	186.77	103.65
Aralla 188	Villasimpliz Mb.	< D.L.	< D.L.	18.35	18.35	18.35
Aralla 189	Villasimpliz Mb.	< D.L.	< D.L.	17.27	17.27	17.27
Aralla 190	Villasimpliz Mb.	< D.L.	27.53	40.50	68.04	68.04
Aralla 191	Villasimpliz Mb.	< D.L.	< D.L.	13.85	13.85	13.85
Aralla 192	Villasimpliz Mb.	49.44	< D.L.	25.16	74.60	25.16
Aralla 193	Villasimpliz Mb.	77.15	42.17	71.16	190.48	113.33
Aralla 194	Villasimpliz Mb.	115.76	54.35	78.35	248.45	132.69
Aralla 195	Villasimpliz Mb.	85.28	< D.L.	78.89	164.17	78.89
Aralla 196	Villasimpliz Mb.	95.79	< D.L.	76.24	172.02	76.24
Aralla 197	Villasimpliz Mb.	53.92	21.92	36.29	112.13	58.21
Aralla 198	Villasimpliz Mb.	55.72	24.12	36.91	116.75	61.03
Aralla 199	Villasimpliz Mb.	100.61	36.72	95.66	232.99	132.38
Aralla 200	Villasimpliz Mb.	< D.L.	< D.L.	21.72	21.72	21.72

Sample	Formation	U	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al2O3*5	10Al2O3
Aralla 176	Bernesga Mb.	15.00	150.00	300.00	10.22	5.05	6.76	33.82	5.90	138.95	277.89
Aralla 177	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	32.22	11.75	137.04	274.09
Aralla 178	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	29.56	14.39	125.81	251.61
Aralla 179	Bernesga Mb.	8.32	83.20	166.40	4.28	2.71	3.63	32.20	5.94	132.77	265.54
Aralla 180	Bernesga Mb.	12.72	127.20	254.40	7.92	4.39	5.89	34.64	5.75	142.95	285.89
Aralla 181	Bernesga Mb.	10.46	104.60	209.20	10.46	3.62	4.85	33.34	9.99	137.90	275.79
Aralla 182	Bernesga Mb.	11.58	115.80	231.60	7.59	4.02	5.39	36.15	6.79	150.58	301.15
Aralla 183	Bernesga Mb.	8.11	81.07	162.13	5.16	2.61	3.49	32.92	6.74	137.22	274.45
Aralla 184	Bernesga Mb.	10.89	108.93	217.87	6.92	3.78	5.06	37.14	6.89	153.80	307.60
Aralla 185	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-1.18	< D.L.	< D.L.	11.37	5.22	47.24	94.48
Aralla 186	Villasimpliz Mb.	7.84	78.40	156.80	6.10	2.47	3.32	25.62	6.94	107.96	215.92
Aralla 187	Villasimpliz Mb.	10.39	103.90	207.80	7.34	3.59	4.81	32.88	6.92	136.23	272.46
Aralla 188	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	13.10	6.30	56.75	113.50
Aralla 189	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	13.23	9.74	57.88	115.75
Aralla 190	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-2.29	< D.L.	< D.L.	22.10	5.46	92.95	185.90
Aralla 191	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	8.41	4.81	35.10	70.21
Aralla 192	Villasimpliz Mb.	6.18	61.80	123.60	6.18	1.53	2.05	13.71	7.43	57.10	114.20
Aralla 193	Villasimpliz Mb.	9.64	96.43	192.87	6.13	3.30	4.42	31.83	6.19	129.32	258.65
Aralla 194	Villasimpliz Mb.	14.47	144.70	289.40	9.94	4.90	6.57	35.81	5.82	146.36	292.72
Aralla 195	Villasimpliz Mb.	10.66	106.60	213.20	10.66	3.69	4.95	37.29	11.84	153.54	307.08
Aralla 196	Villasimpliz Mb.	11.97	119.73	239.47	11.97	4.15	5.57	34.33	8.55	139.82	279.65
Aralla 197	Villasimpliz Mb.	6.74	67.40	134.80	4.91	1.88	2.51	16.87	4.81	68.46	136.93
Aralla 198	Villasimpliz Mb.	6.97	69.65	139.30	4.96	2.01	2.69	17.76	5.79	72.65	145.30
Aralla 199	Villasimpliz Mb.	12.58	125.77	251.53	9.52	4.35	5.83	39.08	7.99	155.80	311.60
Aralla 200	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	9.58	5.67	37.84	75.69

Sample	Formation	15Al2O3	Al2O3/10	K2O*5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	200TiO2	300TiO2	K2O/Al2O3
Aralla 176	Bernesga Mb.	416.84	2.78	22.51	< D.L.	11.48	-3539.28	3.32	4.27	240.22	360.33	0.16
Aralla 177	Bernesga Mb.	411.13	2.74	17.74	0.41	10.85	38327.17	7.46	9.60	185.42	278.14	0.13
Aralla 178	Bernesga Mb.	377.42	2.52	16.13	< D.L.	< D.L.	67330.77	10.06	12.94	171.55	257.33	0.13
Aralla 179	Bernesga Mb.	398.31	2.66	21.02	< D.L.	11.55	-1644.94	3.35	4.31	214.18	321.27	0.16
Aralla 180	Bernesga Mb.	428.84	2.86	22.57	< D.L.	12.45	-6346.96	3.15	4.05	225.17	337.75	0.16
Aralla 181	Bernesga Mb.	413.69	2.76	21.45	0.40	10.71	25888.14	6.24	8.02	217.45	326.17	0.16
Aralla 182	Bernesga Mb.	451.73	3.01	22.54	< D.L.	12.83	-1319.53	3.85	4.96	230.30	345.44	0.15
Aralla 183	Bernesga Mb.	411.67	2.74	20.32	< D.L.	12.12	2360.77	3.87	4.98	201.52	302.28	0.15
Aralla 184	Bernesga Mb.	461.40	3.08	23.89	< D.L.	15.21	-3120.43	3.76	4.83	231.70	347.54	0.16
Aralla 185	Villasimpliz Mb.	141.71	0.94	6.42	< D.L.	< D.L.	23978.61	3.65	4.69	109.32	163.98	0.14
Aralla 186	Villasimpliz Mb.	323.87	2.16	14.67	< D.L.	12.04	11564.28	4.01	5.16	157.26	235.89	0.14
Aralla 187	Villasimpliz Mb.	408.68	2.72	20.95	< D.L.	13.55	2869.96	3.89	5.01	194.60	291.90	0.15
Aralla 188	Villasimpliz Mb.	170.25	1.14	5.74	< D.L.	10.38	21762.91	3.68	4.73	96.66	144.99	0.10
Aralla 189	Villasimpliz Mb.	173.63	1.16	5.40	< D.L.	< D.L.	52794.66	6.81	8.76	107.62	161.42	0.09
Aralla 190	Villasimpliz Mb.	278.84	1.86	12.66	< D.L.	9.45	6982.83	3.16	4.06	128.97	193.46	0.14
Aralla 191	Villasimpliz Mb.	105.31	0.70	4.33	< D.L.	< D.L.	24387.29	3.37	4.33	89.16	133.74	0.12
Aralla 192	Villasimpliz Mb.	171.29	1.14	7.86	< D.L.	< D.L.	36885.87	5.20	6.69	101.97	152.96	0.14
Aralla 193	Villasimpliz Mb.	387.97	2.59	22.24	< D.L.	13.18	-183.70	3.40	4.38	192.05	288.08	0.17
Aralla 194	Villasimpliz Mb.	439.08	2.93	24.48	< D.L.	11.77	-6247.92	3.25	4.18	229.91	344.86	0.17
Aralla 195	Villasimpliz Mb.	460.62	3.07	24.65	< D.L.	15.39	31428.80	7.21	9.27	229.58	344.38	0.16
Aralla 196	Villasimpliz Mb.	419.47	2.80	23.82	< D.L.	12.68	13923.72	5.09	6.55	224.00	336.01	0.17
Aralla 197	Villasimpliz Mb.	205.39	1.37	11.34	< D.L.	< D.L.	15548.88	3.37	4.33	143.92	215.88	0.17
Aralla 198	Villasimpliz Mb.	217.95	1.45	11.53	< D.L.	10.38	14016.47	3.32	4.28	143.53	215.29	0.16
Aralla 199	Villasimpliz Mb.	467.40	3.12	29.89	< D.L.	15.19	4010.26	4.52	5.82	237.40	356.09	0.19
Aralla 200	Villasimpliz Mb.	113.53	0.76	6.79	< D.L.	< D.L.	29655.96	3.97	5.10	69.99	104.99	0.18

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
Aralla 176	Bernesga Mb.	-0.79	0.04	0.68	0.30	0.34	2.95	-0.47	18.19
Aralla 177	Bernesga Mb.	-0.89	0.04	1.03	0.29	0.36	2.81	-0.45	18.63
Aralla 178	Bernesga Mb.	-0.89	< D.L.	1.16	0.30	0.36	2.75	-0.44	21.42
Aralla 179	Bernesga Mb.	-0.80	0.04	0.68	0.33	0.34	2.91	-0.46	18.37
Aralla 180	Bernesga Mb.	-0.80	0.04	0.65	0.30	0.34	2.95	-0.47	18.67
Aralla 181	Bernesga Mb.	-0.81	0.04	0.95	0.26	0.34	2.92	-0.47	16.50
Aralla 182	Bernesga Mb.	-0.82	0.04	0.74	0.28	0.34	2.95	-0.47	19.69
Aralla 183	Bernesga Mb.	-0.83	0.04	0.74	0.32	0.35	2.89	-0.46	19.51
Aralla 184	Bernesga Mb.	-0.81	0.05	0.73	0.27	0.34	2.98	-0.47	19.17
Aralla 185	Villasimpliz Mb.	-0.87	< D.L.	0.72	0.88	0.50	2.02	-0.30	14.84
Aralla 186	Villasimpliz Mb.	-0.87	0.06	0.76	0.48	0.37	2.68	-0.43	19.74
Aralla 187	Villasimpliz Mb.	-0.81	0.05	0.75	0.34	0.34	2.91	-0.46	18.90
Aralla 188	Villasimpliz Mb.	-1.00	0.09	0.72	0.81	0.52	1.92	-0.28	18.96
Aralla 189	Villasimpliz Mb.	-1.03	< D.L.	0.99	0.76	0.54	1.86	-0.27	19.95
Aralla 190	Villasimpliz Mb.	-0.87	0.05	0.65	0.56	0.39	2.58	-0.41	18.93
Aralla 191	Villasimpliz Mb.	-0.91	< D.L.	0.68	1.05	0.60	1.66	-0.22	13.48
Aralla 192	Villasimpliz Mb.	-0.86	< D.L.	0.87	0.78	0.46	2.19	-0.34	15.94
Aralla 193	Villasimpliz Mb.	-0.76	0.05	0.69	0.34	0.34	2.94	-0.47	17.10
Aralla 194	Villasimpliz Mb.	-0.78	0.04	0.67	0.28	0.33	2.99	-0.48	17.88
Aralla 195	Villasimpliz Mb.	-0.79	0.05	1.01	0.20	0.33	2.99	-0.48	18.65
Aralla 196	Villasimpliz Mb.	-0.77	0.05	0.86	0.31	0.34	2.98	-0.47	17.47
Aralla 197	Villasimpliz Mb.	-0.78	< D.L.	0.68	0.72	0.40	2.49	-0.40	15.06
Aralla 198	Villasimpliz Mb.	-0.80	0.07	0.68	0.70	0.40	2.51	-0.40	15.79
Aralla 199	Villasimpliz Mb.	-0.72	0.05	0.81	0.23	0.32	3.09	-0.49	16.09
Aralla 200	Villasimpliz Mb.	-0.75	< D.L.	0.75	0.99	0.48	2.07	-0.32	11.52

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
Aralla 176	Bernesga Mb.	1.53	6.03	5.90	1.99	0.30	0.50	0.17	36.26	0.00
Aralla 177	Bernesga Mb.	1.47	5.02	11.75	1.97	0.29	0.51	0.39	31.16	0.00
Aralla 178	Bernesga Mb.	1.17	4.40	14.39	1.98	0.30	0.50	0.57	29.65	0.00
Aralla 179	Bernesga Mb.	1.45	5.65	5.94	2.15	0.33	0.46	0.18	35.88	0.00
Aralla 180	Bernesga Mb.	1.53	6.05	5.75	2.02	0.30	0.50	0.16	35.78	0.00
Aralla 181	Bernesga Mb.	1.67	5.96	9.99	1.82	0.26	0.55	0.32	33.71	0.00
Aralla 182	Bernesga Mb.	1.53	6.04	6.79	1.91	0.28	0.52	0.18	34.55	0.00
Aralla 183	Bernesga Mb.	1.41	5.47	6.74	2.11	0.32	0.47	0.20	34.05	0.00
Aralla 184	Bernesga Mb.	1.60	6.38	6.89	1.85	0.27	0.54	0.17	35.61	0.00
Aralla 185	Villasimpliz Mb.	0.64	1.92	5.22	7.52	0.88	0.13	0.55	32.35	0.00
Aralla 186	Villasimpliz Mb.	1.09	4.03	6.94	3.02	0.48	0.33	0.27	30.06	0.00
Aralla 187	Villasimpliz Mb.	1.44	5.63	6.92	2.20	0.34	0.46	0.20	32.84	0.00
Aralla 188	Villasimpliz Mb.	0.60	1.75	6.30	6.42	0.81	0.16	0.46	31.74	0.00
Aralla 189	Villasimpliz Mb.	0.58	1.66	9.74	5.78	0.76	0.17	0.84	27.07	0.00
Aralla 190	Villasimpliz Mb.	0.98	3.51	5.46	3.63	0.56	0.28	0.24	27.83	0.00
Aralla 191	Villasimpliz Mb.	0.52	1.39	4.81	11.24	1.05	0.09	0.69	35.17	0.00
Aralla 192	Villasimpliz Mb.	0.72	2.29	7.43	6.04	0.78	0.17	0.65	27.50	0.00
Aralla 193	Villasimpliz Mb.	1.51	5.96	6.19	2.21	0.34	0.45	0.19	31.90	0.00
Aralla 194	Villasimpliz Mb.	1.64	6.53	5.82	1.92	0.28	0.52	0.16	34.99	0.00
Aralla 195	Villasimpliz Mb.	1.65	6.58	11.84	1.59	0.20	0.63	0.34	33.92	0.00
Aralla 196	Villasimpliz Mb.	1.60	6.37	8.55	2.02	0.31	0.50	0.26	31.72	0.00
Aralla 197	Villasimpliz Mb.	0.91	3.18	4.81	5.27	0.72	0.19	0.35	30.67	0.00
Aralla 198	Villasimpliz Mb.	0.92	3.23	5.79	5.05	0.70	0.20	0.33	30.38	0.00
Aralla 199	Villasimpliz Mb.	1.94	7.92	7.99	1.70	0.23	0.59	0.21	31.76	0.00
Aralla 200	Villasimpliz Mb.	0.66	2.01	5.67	9.82	0.99	0.10	0.75	28.85	0.00

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Ti Cal (ppm)	Zr/Sc	Cr/Th	Th/Sc
Aralla 176	Bernesga Mb.	23.14	0.06	347.48	< D.L.	166.22	0.31	0.70	1.04	< D.L.	< D.L.	4.78	7199.44	< D.L.	7.96	< D.L.
Aralla 177	Bernesga Mb.	29.56	0.06	376.81	0.53	150.65	0.60	0.65	1.18	< D.L.	< D.L.	< D.L.	5557.24	< D.L.	< D.L.	< D.L.
Aralla 178	Bernesga Mb.	29.33	0.06	366.35	1.12	169.44	0.87	0.58	1.37	< D.L.	< D.L.	< D.L.	5141.55	< D.L.	< D.L.	< D.L.
Aralla 179	Bernesga Mb.	24.80	0.06	333.06	< D.L.	153.25	0.39	0.63	0.98	< D.L.	6.66	4.04	6419.15	11.65	7.89	0.55
Aralla 180	Bernesga Mb.	25.39	0.06	358.21	< D.L.	159.68	0.37	0.65	0.94	< D.L.	< D.L.	4.80	6748.38	< D.L.	7.25	< D.L.
Aralla 181	Bernesga Mb.	25.37	0.06	359.77	0.66	183.63	0.51	0.65	1.22	< D.L.	< D.L.	< D.L.	6516.97	< D.L.	< D.L.	< D.L.
Aralla 182	Bernesga Mb.	26.15	0.05	328.52	< D.L.	161.36	0.37	0.67	1.01	< D.L.	< D.L.	3.99	6902.08	< D.L.	8.66	< D.L.
Aralla 183	Bernesga Mb.	27.24	0.06	338.16	< D.L.	142.28	0.40	0.63	1.00	< D.L.	5.41	2.95	6039.69	8.28	9.81	0.35
Aralla 184	Bernesga Mb.	26.55	0.06	352.88	< D.L.	185.67	0.46	0.63	1.00	< D.L.	< D.L.	3.97	6944.03	< D.L.	9.07	< D.L.
Aralla 185	Villasimpliz Mb.	17.28	0.06	382.26	< D.L.	70.49	0.86	0.41	1.50	< D.L.	< D.L.	1.18	3276.41	< D.L.	4.83	< D.L.
Aralla 186	Villasimpliz Mb.	27.46	0.06	341.11	< D.L.	109.56	0.59	0.57	1.14	< D.L.	4.01	1.75	4713.23	8.68	9.61	0.21
Aralla 187	Villasimpliz Mb.	28.00	0.06	348.21	0.98	139.67	0.45	0.56	1.02	< D.L.	< D.L.	3.05	5832.32	< D.L.	8.41	< D.L.
Aralla 188	Villasimpliz Mb.	23.49	0.09	536.48	0.29	62.71	1.24	< D.L.	1.39	< D.L.	< D.L.	< D.L.	2896.84	< D.L.	< D.L.	< D.L.
Aralla 189	Villasimpliz Mb.	21.51	0.05	305.17	0.28	105.11	1.69	< D.L.	2.13	< D.L.	< D.L.	< D.L.	3225.29	< D.L.	< D.L.	< D.L.
Aralla 190	Villasimpliz Mb.	28.83	0.07	422.84	< D.L.	90.64	0.59	0.61	1.15	< D.L.	< D.L.	2.29	3865.34	< D.L.	6.20	< D.L.
Aralla 191	Villasimpliz Mb.	15.75	0.06	366.70	< D.L.	51.97	1.12	< D.L.	1.53	< D.L.	< D.L.	< D.L.	2672.17	< D.L.	< D.L.	< D.L.
Aralla 192	Villasimpliz Mb.	22.40	0.06	341.47	0.38	72.80	1.55	< D.L.	1.08	< D.L.	< D.L.	< D.L.	3056.13	< D.L.	< D.L.	< D.L.
Aralla 193	Villasimpliz Mb.	26.94	0.06	372.26	< D.L.	157.89	0.48	0.59	1.09	< D.L.	< D.L.	3.51	5755.91	< D.L.	7.96	< D.L.
Aralla 194	Villasimpliz Mb.	25.46	0.06	337.90	< D.L.	185.37	0.39	0.68	1.02	< D.L.	< D.L.	4.53	6890.45	< D.L.	8.61	< D.L.
Aralla 195	Villasimpliz Mb.	26.75	0.06	364.95	0.53	209.86	0.51	0.60	1.29	< D.L.	< D.L.	< D.L.	6880.72	< D.L.	< D.L.	< D.L.
Aralla 196	Villasimpliz Mb.	24.97	0.06	341.61	0.57	164.60	0.58	0.48	1.05	< D.L.	< D.L.	< D.L.	6713.48	< D.L.	< D.L.	< D.L.
Aralla 197	Villasimpliz Mb.	19.03	0.06	373.66	< D.L.	97.69	0.65	0.58	1.28	< D.L.	< D.L.	1.83	4313.42	< D.L.	7.33	< D.L.
Aralla 198	Villasimpliz Mb.	20.25	0.05	324.63	< D.L.	71.97	0.47	0.50	1.11	< D.L.	< D.L.	2.01	4301.57	< D.L.	5.87	< D.L.
Aralla 199	Villasimpliz Mb.	26.25	0.06	349.85	0.35	179.56	0.48	0.50	0.93	< D.L.	< D.L.	3.06	7114.85	< D.L.	10.40	< D.L.
Aralla 200	Villasimpliz Mb.	21.63	0.12	703.31	< D.L.	55.35	1.09	< D.L.	1.30	< D.L.	3.22	< D.L.	2097.72	8.66	< D.L.	< D.L.

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
Aralla 176	Bernesga Mb.	1.29	0.77	0.03	10.18	1.85	2.23	< D.L.	0.67	1.49
Aralla 177	Bernesga Mb.	1.54	0.65	0.03	11.58	2.36	5.14	< D.L.	0.55	1.80
Aralla 178	Bernesga Mb.	1.73	0.58	0.03	11.80	2.97	7.28	< D.L.	0.43	2.35
Aralla 179	Bernesga Mb.	1.72	0.58	0.04	13.42	2.70	2.56	< D.L.	0.65	1.55
Aralla 180	Bernesga Mb.	1.33	0.75	0.03	11.44	2.07	2.61	< D.L.	0.69	1.45
Aralla 181	Bernesga Mb.	1.21	0.83	0.03	9.67	1.85	4.30	< D.L.	0.54	1.86
Aralla 182	Bernesga Mb.	1.39	0.72	0.03	10.33	2.09	3.10	< D.L.	0.66	1.52
Aralla 183	Bernesga Mb.	1.52	0.66	0.03	11.81	2.43	3.14	< D.L.	0.63	1.59
Aralla 184	Bernesga Mb.	1.16	0.86	0.03	10.04	1.83	2.74	< D.L.	0.63	1.58
Aralla 185	Villasimpliz Mb.	6.35	0.16	0.08	30.74	15.37	1.49	< D.L.	0.28	3.63
Aralla 186	Villasimpliz Mb.	2.47	0.41	0.05	15.75	4.33	3.34	< D.L.	0.50	2.00
Aralla 187	Villasimpliz Mb.	1.28	0.78	0.03	10.51	2.29	3.17	< D.L.	0.55	1.81
Aralla 188	Villasimpliz Mb.	5.40	0.19	0.07	36.44	< D.L.	2.00	< D.L.	< D.L.	< D.L.
Aralla 189	Villasimpliz Mb.	8.07	0.12	0.07	22.31	< D.L.	11.76	< D.L.	< D.L.	< D.L.
Aralla 190	Villasimpliz Mb.	3.73	0.27	0.07	28.73	6.15	1.31	< D.L.	0.53	1.90
Aralla 191	Villasimpliz Mb.	7.67	0.13	0.09	32.04	< D.L.	0.72	< D.L.	< D.L.	< D.L.
Aralla 192	Villasimpliz Mb.	5.67	0.18	0.08	27.40	< D.L.	5.54	< D.L.	< D.L.	< D.L.
Aralla 193	Villasimpliz Mb.	1.46	0.68	0.04	13.42	2.47	2.51	< D.L.	0.54	1.84
Aralla 194	Villasimpliz Mb.	1.22	0.82	0.03	10.21	1.78	2.69	< D.L.	0.67	1.50
Aralla 195	Villasimpliz Mb.	0.86	1.16	0.02	7.63	1.44	4.88	< D.L.	0.46	2.16
Aralla 196	Villasimpliz Mb.	1.46	0.69	0.03	11.20	3.01	3.93	< D.L.	0.46	2.16
Aralla 197	Villasimpliz Mb.	3.50	0.29	0.06	21.09	6.06	2.55	< D.L.	0.45	2.22
Aralla 198	Villasimpliz Mb.	3.81	0.26	0.06	20.17	7.55	2.08	< D.L.	0.45	2.21
Aralla 199	Villasimpliz Mb.	1.03	0.97	0.03	9.61	2.05	3.63	< D.L.	0.54	1.85
Aralla 200	Villasimpliz Mb.	3.49	0.29	0.07	45.87	< D.L.	3.10	< D.L.	< D.L.	< D.L.

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
Aralla 176	Bernesga Mb.	1.00	1.02	11.59	< D.L.	< D.L.	1.59	3.54	7.76
Aralla 177	Bernesga Mb.	2.37	< D.L.	8.99	3.12	< D.L.	1.64	5.40	4.99
Aralla 178	Bernesga Mb.	3.90	< D.L.	9.85	5.70	< D.L.	6.39	8.54	4.19
Aralla 179	Bernesga Mb.	1.03	0.59	10.52	< D.L.	< D.L.	1.70	4.10	6.81
Aralla 180	Bernesga Mb.	0.92	0.84	9.99	< D.L.	< D.L.	2.31	3.66	6.89
Aralla 181	Bernesga Mb.	2.28	0.72	12.04	2.83	< D.L.	1.88	6.10	6.48
Aralla 182	Bernesga Mb.	1.11	0.73	9.89	< D.L.	< D.L.	1.71	3.63	6.50
Aralla 183	Bernesga Mb.	1.39	0.56	9.48	< D.L.	< D.L.	1.50	3.82	5.98
Aralla 184	Bernesga Mb.	1.01	0.67	10.48	< D.L.	< D.L.	1.48	4.77	6.63
Aralla 185	Villasimpliz Mb.	2.37	< D.L.	12.44	< D.L.	< D.L.	4.33	10.67	3.43
Aralla 186	Villasimpliz Mb.	1.48	0.69	8.79	< D.L.	< D.L.	2.30	5.19	4.40
Aralla 187	Villasimpliz Mb.	3.29	0.72	9.69	2.53	2.48	2.47	4.34	5.34
Aralla 188	Villasimpliz Mb.	1.97	< D.L.	8.40	10.48	< D.L.	3.03	10.44	< D.L.
Aralla 189	Villasimpliz Mb.	4.86	< D.L.	10.17	13.48	< D.L.	3.82	17.16	< D.L.
Aralla 190	Villasimpliz Mb.	1.07	< D.L.	8.25	< D.L.	< D.L.	1.90	4.88	4.34
Aralla 191	Villasimpliz Mb.	2.27	< D.L.	12.54	< D.L.	< D.L.	3.24	13.99	< D.L.
Aralla 192	Villasimpliz Mb.	3.54	1.02	7.75	10.34	< D.L.	3.88	12.05	< D.L.
Aralla 193	Villasimpliz Mb.	1.02	0.70	11.30	< D.L.	< D.L.	1.82	5.40	6.13
Aralla 194	Villasimpliz Mb.	0.84	0.93	11.32	< D.L.	< D.L.	1.38	4.42	7.55
Aralla 195	Villasimpliz Mb.	2.14	0.66	13.26	3.26	< D.L.	1.72	6.77	6.14
Aralla 196	Villasimpliz Mb.	1.63	0.81	10.67	2.48	< D.L.	1.43	6.19	4.93
Aralla 197	Villasimpliz Mb.	1.56	0.93	12.29	< D.L.	< D.L.	2.18	7.94	5.54
Aralla 198	Villasimpliz Mb.	1.31	0.91	10.15	< D.L.	< D.L.	2.03	4.76	4.60
Aralla 199	Villasimpliz Mb.	1.40	0.76	10.71	3.50	< D.L.	1.21	5.10	5.79
Aralla 200	Villasimpliz Mb.	3.08	< D.L.	12.69	< D.L.	< D.L.	3.59	13.82	< D.L.

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
Aralla 176	Bernesga Mb.	< D.L.	12.03	29.70	24.76	14.33	0.77	20.30	< D.L.
Aralla 177	Bernesga Mb.	< D.L.	11.65	32.26	39.15	11.77	0.62	22.05	< D.L.
Aralla 178	Bernesga Mb.	< D.L.	12.54	34.26	52.33	12.43	0.54	23.41	< D.L.
Aralla 179	Bernesga Mb.	< D.L.	12.34	30.90	27.43	18.40	0.72	21.11	< D.L.
Aralla 180	Bernesga Mb.	< D.L.	11.63	29.21	27.82	14.24	0.73	19.96	< D.L.
Aralla 181	Bernesga Mb.	< D.L.	11.88	30.45	42.64	12.01	0.66	20.81	< D.L.
Aralla 182	Bernesga Mb.	< D.L.	11.03	27.88	30.26	13.61	0.73	19.05	< D.L.
Aralla 183	Bernesga Mb.	< D.L.	11.90	30.12	29.95	14.52	0.71	20.58	< D.L.
Aralla 184	Bernesga Mb.	< D.L.	10.81	26.89	28.60	12.14	0.69	18.38	< D.L.
Aralla 185	Villasimpliz Mb.	< D.L.	31.73	87.80	12.36	52.69	0.54	60.00	< D.L.
Aralla 186	Villasimpliz Mb.	< D.L.	14.94	38.98	25.76	19.05	0.63	26.64	< D.L.
Aralla 187	Villasimpliz Mb.	< D.L.	12.16	30.84	30.21	12.21	0.69	21.08	< D.L.
Aralla 188	Villasimpliz Mb.	< D.L.	26.46	73.19	12.14	32.75	0.45	50.02	< D.L.
Aralla 189	Villasimpliz Mb.	< D.L.	26.08	288.24	56.11	38.49	0.37	196.98	< D.L.
Aralla 190	Villasimpliz Mb.	< D.L.	17.58	44.64	9.37	26.69	0.63	30.51	< D.L.
Aralla 191	Villasimpliz Mb.	< D.L.	42.82	116.82	5.88	62.83	0.47	79.83	< D.L.
Aralla 192	Villasimpliz Mb.	< D.L.	27.07	90.23	39.61	40.58	0.39	61.66	< D.L.
Aralla 193	Villasimpliz Mb.	< D.L.	12.97	32.92	26.03	15.16	0.68	22.49	< D.L.
Aralla 194	Villasimpliz Mb.	< D.L.	11.97	31.29	29.73	13.44	0.72	21.39	< D.L.
Aralla 195	Villasimpliz Mb.	< D.L.	11.14	29.93	50.21	8.85	0.66	20.45	< D.L.
Aralla 196	Villasimpliz Mb.	< D.L.	12.00	66.85	40.11	14.87	0.63	45.68	< D.L.
Aralla 197	Villasimpliz Mb.	< D.L.	23.18	60.32	24.46	33.60	0.61	41.22	< D.L.
Aralla 198	Villasimpliz Mb.	< D.L.	21.94	56.81	18.92	34.75	0.68	38.82	< D.L.
Aralla 199	Villasimpliz Mb.	< D.L.	11.06	48.95	41.80	11.85	0.68	33.45	< D.L.
Aralla 200	Villasimpliz Mb.	< D.L.	39.81	170.06	30.30	34.15	0.48	116.22	< D.L.

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
Aralla 176	Bernesga Mb.	0.96	1.05	2.12	14.05	< D.L.	1.06	0.02	1.47	0.01	< D.L.	< D.L.
Aralla 177	Bernesga Mb.	< D.L.	< D.L.	1.66	< D.L.	< D.L.	3.01	0.48	3.44	0.01	0.04	0.43
Aralla 178	Bernesga Mb.	< D.L.	< D.L.	1.56	< D.L.	< D.L.	4.46	0.65	5.20	0.01	0.05	0.55
Aralla 179	Bernesga Mb.	1.46	0.69	2.36	31.09	< D.L.	1.14	0.06	1.44	0.01	< D.L.	< D.L.
Aralla 180	Bernesga Mb.	1.13	0.88	2.14	16.94	< D.L.	1.00	0.00	1.39	0.01	< D.L.	< D.L.
Aralla 181	Bernesga Mb.	< D.L.	< D.L.	1.85	16.75	< D.L.	2.08	0.32	3.32	0.01	0.05	0.46
Aralla 182	Bernesga Mb.	1.03	0.97	2.12	18.73	< D.L.	1.22	0.09	1.77	0.01	< D.L.	< D.L.
Aralla 183	Bernesga Mb.	1.09	0.92	2.02	26.02	< D.L.	1.36	0.13	2.02	0.01	< D.L.	< D.L.
Aralla 184	Bernesga Mb.	1.09	0.91	2.09	18.14	< D.L.	1.12	0.05	1.64	0.01	< D.L.	< D.L.
Aralla 185	Villasimpliz Mb.	< D.L.	< D.L.	1.92	< D.L.	< D.L.	4.06	0.61	1.18	0.00	< D.L.	< D.L.
Aralla 186	Villasimpliz Mb.	0.67	1.50	1.79	27.77	< D.L.	1.96	0.29	1.69	0.01	< D.L.	< D.L.
Aralla 187	Villasimpliz Mb.	0.88	1.13	1.79	16.95	0.29	1.33	0.12	4.74	0.01	< D.L.	< D.L.
Aralla 188	Villasimpliz Mb.	< D.L.	< D.L.	1.47	< D.L.	< D.L.	4.58	0.66	1.18	< D.L.	< D.L.	< D.L.
Aralla 189	Villasimpliz Mb.	< D.L.	< D.L.	1.66	< D.L.	< D.L.	9.02	0.96	2.98	< D.L.	< D.L.	< D.L.
Aralla 190	Villasimpliz Mb.	< D.L.	< D.L.	1.93	< D.L.	< D.L.	1.78	0.25	1.05	0.00	< D.L.	< D.L.
Aralla 191	Villasimpliz Mb.	< D.L.	< D.L.	1.66	< D.L.	< D.L.	5.56	0.75	0.84	< D.L.	< D.L.	< D.L.
Aralla 192	Villasimpliz Mb.	< D.L.	< D.L.	1.76	39.69	< D.L.	4.73	0.67	2.14	< D.L.	< D.L.	< D.L.
Aralla 193	Villasimpliz Mb.	1.09	0.91	1.97	21.53	< D.L.	1.09	0.04	1.40	0.01	< D.L.	< D.L.
Aralla 194	Villasimpliz Mb.	0.94	1.07	2.05	14.39	< D.L.	0.95	-0.02	1.30	0.01	< D.L.	< D.L.
Aralla 195	Villasimpliz Mb.	< D.L.	< D.L.	1.72	13.50	< D.L.	2.09	0.32	3.48	0.01	< D.L.	< D.L.
Aralla 196	Villasimpliz Mb.	< D.L.	< D.L.	2.09	18.38	< D.L.	1.53	0.18	2.41	0.01	< D.L.	< D.L.
Aralla 197	Villasimpliz Mb.	0.81	1.23	1.86	36.12	< D.L.	2.12	0.33	1.13	0.00	< D.L.	< D.L.
Aralla 198	Villasimpliz Mb.	0.87	1.16	2.00	38.37	< D.L.	2.06	0.31	1.01	0.00	< D.L.	< D.L.
Aralla 199	Villasimpliz Mb.	0.73	1.37	2.11	15.54	< D.L.	1.08	0.03	2.30	0.01	< D.L.	< D.L.
Aralla 200	Villasimpliz Mb.	< D.L.	< D.L.	1.10	< D.L.	< D.L.	4.18	0.62	1.23	< D.L.	< D.L.	< D.L.

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	V (wt%)	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
Aralla 176	Bernesga Mb.	< D.L.	< D.L.	< D.L.	10.22	0.02	7.31	21.08	405766.56	754.13	-21.95
Aralla 177	Bernesga Mb.	861.34	0.06	0.09	< D.L.	0.01	5.63	17.08	397197.72	1021.13	-8.85
Aralla 178	Bernesga Mb.	1093.28	0.08	0.11	< D.L.	0.01	5.20	16.56	366564.64	1986.97	1.71
Aralla 179	Bernesga Mb.	< D.L.	< D.L.	< D.L.	4.28	0.01	6.51	25.87	407661.28	815.23	-20.44
Aralla 180	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.92	0.02	6.85	21.55	420873.97	904.27	-23.41
Aralla 181	Bernesga Mb.	912.01	0.07	0.09	10.46	0.02	6.61	17.52	380209.56	1164.47	-12.78
Aralla 182	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.59	0.02	7.01	21.69	428432.43	850.87	-23.01
Aralla 183	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.16	0.01	6.13	21.10	415666.08	772.57	-19.88
Aralla 184	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.92	0.02	7.05	19.76	429262.17	1017.73	-24.05
Aralla 185	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-1.18	0.01	3.29	26.34	381875.59	749.97	0.24
Aralla 186	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	6.10	0.01	4.76	21.77	419482.25	855.53	-12.67
Aralla 187	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	7.34	0.01	5.91	17.61	424093.12	983.07	-19.58
Aralla 188	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	< D.L.	0.01	2.90	19.67	400557.54	809.13	-1.86
Aralla 189	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	< D.L.	0.01	3.23	23.58	374255.54	1285.33	7.46
Aralla 190	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-2.29	0.01	3.91	26.26	413957.30	666.53	-11.82
Aralla 191	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	< D.L.	0.00	2.67	23.35	405980.34	640.17	2.19
Aralla 192	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	6.18	0.00	3.06	24.53	382974.81	962.30	2.71
Aralla 193	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	6.13	0.02	5.84	20.76	404264.84	988.93	-19.47
Aralla 194	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	9.94	0.02	7.01	20.83	417388.28	898.67	-23.89
Aralla 195	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	10.66	0.02	6.98	14.39	390317.40	1379.83	-13.44
Aralla 196	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	11.97	0.02	6.79	22.01	411874.89	1126.80	-16.73
Aralla 197	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	4.91	0.01	4.35	24.35	409684.24	732.90	-5.52
Aralla 198	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	4.96	0.01	4.34	26.73	419939.17	522.32	-6.62
Aralla 199	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	9.52	0.02	7.21	19.54	412910.09	1041.30	-22.17
Aralla 200	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	< D.L.	0.01	2.10	13.68	387437.63	697.20	3.39

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
Aralla 176	Bernesga Mb.	-10.26	15.01	-2.20	0.82	93.84	94.79
Aralla 177	Bernesga Mb.	-4.14	14.80	3.81	12.78	94.19	94.91
Aralla 178	Bernesga Mb.	0.80	13.59	8.10	0.09	94.92	95.54
Aralla 179	Bernesga Mb.	-9.55	14.34	-1.85	0.84	93.93	94.84
Aralla 180	Bernesga Mb.	-10.94	15.44	-2.65	0.81	94.02	94.92
Aralla 181	Bernesga Mb.	-5.97	14.89	2.02	1.51	93.30	94.28
Aralla 182	Bernesga Mb.	-10.75	16.26	-2.02	0.84	94.36	95.17
Aralla 183	Bernesga Mb.	-9.29	14.82	-1.33	0.87	94.32	95.12
Aralla 184	Bernesga Mb.	-11.24	16.61	-2.32	0.83	94.18	95.04
Aralla 185	Villasimpliz Mb.	0.11	5.10	2.85	0.04	92.77	93.69
Aralla 186	Villasimpliz Mb.	-5.92	11.66	0.34	1.06	94.46	95.18
Aralla 187	Villasimpliz Mb.	-9.15	14.71	-1.25	0.88	94.12	94.98
Aralla 188	Villasimpliz Mb.	-0.87	6.13	2.42	-0.56	94.46	94.99
Aralla 189	Villasimpliz Mb.	3.49	6.25	6.84	0.34	94.76	95.23
Aralla 190	Villasimpliz Mb.	-5.52	10.04	-0.13	0.98	94.24	94.98
Aralla 191	Villasimpliz Mb.	1.02	3.79	3.06	0.25	92.20	93.09
Aralla 192	Villasimpliz Mb.	1.27	6.17	4.58	0.22	93.22	94.10
Aralla 193	Villasimpliz Mb.	-9.10	13.97	-1.60	0.85	93.40	94.47
Aralla 194	Villasimpliz Mb.	-11.16	15.81	-2.67	0.81	93.71	94.70
Aralla 195	Villasimpliz Mb.	-6.28	16.58	2.63	1.72	93.99	94.91
Aralla 196	Villasimpliz Mb.	-7.82	15.10	0.29	1.04	93.55	94.59
Aralla 197	Villasimpliz Mb.	-2.58	7.39	1.39	2.17	92.63	93.77
Aralla 198	Villasimpliz Mb.	-3.09	7.85	1.12	1.57	93.00	94.05
Aralla 199	Villasimpliz Mb.	-10.36	16.83	-1.32	0.89	92.86	94.15
Aralla 200	Villasimpliz Mb.	1.58	4.09	3.78	0.30	90.43	92.01

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
Aralla 176	Bernesga Mb.	82.17	2.82	0.20	2.85
Aralla 177	Bernesga Mb.	84.52	8.82	-2.83	8.85
Aralla 178	Bernesga Mb.	85.11	12.26	-3.21	12.28
Aralla 179	Bernesga Mb.	82.46	2.64	-0.42	2.67
Aralla 180	Bernesga Mb.	82.54	3.09	0.19	3.12
Aralla 181	Bernesga Mb.	82.22	6.53	-1.15	6.56
Aralla 182	Bernesga Mb.	83.30	4.69	0.01	4.72
Aralla 183	Bernesga Mb.	83.38	3.93	-0.85	3.95
Aralla 184	Bernesga Mb.	82.82	4.32	0.23	4.34
Aralla 185	Villasimpliz Mb.	83.11	-1.60	-5.16	-1.59
Aralla 186	Villasimpliz Mb.	84.28	2.15	-3.15	2.17
Aralla 187	Villasimpliz Mb.	82.87	3.54	-0.86	3.56
Aralla 188	Villasimpliz Mb.	86.67	-1.71	-6.46	-1.70
Aralla 189	Villasimpliz Mb.	87.46	3.36	-6.46	3.38
Aralla 190	Villasimpliz Mb.	84.10	0.48	-3.45	0.49
Aralla 191	Villasimpliz Mb.	83.51	-2.75	-5.92	-2.74
Aralla 192	Villasimpliz Mb.	83.30	1.03	-5.14	1.05
Aralla 193	Villasimpliz Mb.	81.27	1.97	-0.35	1.99
Aralla 194	Villasimpliz Mb.	81.75	3.26	0.88	3.29
Aralla 195	Villasimpliz Mb.	82.36	7.86	-0.79	7.89
Aralla 196	Villasimpliz Mb.	81.46	4.53	-0.19	4.56
Aralla 197	Villasimpliz Mb.	81.17	-0.70	-3.16	-0.68
Aralla 198	Villasimpliz Mb.	81.83	-1.83	-4.21	-1.81
Aralla 199	Villasimpliz Mb.	79.74	4.05	1.86	4.07
Aralla 200	Villasimpliz Mb.	78.98	-2.13	-5.37	-2.12

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
Aralla 176	Bernesga Mb.	1.79	4.65	-45.08	0.85
Aralla 177	Bernesga Mb.	-1.42	4.37	-55.11	0.72
Aralla 178	Bernesga Mb.	-1.98	4.06	-59.99	0.64
Aralla 179	Bernesga Mb.	1.09	4.64	-44.96	0.85
Aralla 180	Bernesga Mb.	1.79	4.66	-46.07	0.86
Aralla 181	Bernesga Mb.	0.47	4.65	-51.18	0.75
Aralla 182	Bernesga Mb.	1.60	4.58	-48.74	0.84
Aralla 183	Bernesga Mb.	0.61	4.60	-47.02	0.83
Aralla 184	Bernesga Mb.	1.91	4.69	-48.86	0.85
Aralla 185	Villasimpliz Mb.	-4.49	3.71	-39.24	0.64
Aralla 186	Villasimpliz Mb.	-2.01	4.23	-45.82	0.79
Aralla 187	Villasimpliz Mb.	0.64	4.58	-48.02	0.83
Aralla 188	Villasimpliz Mb.	-5.83	3.82	-40.06	0.68
Aralla 189	Villasimpliz Mb.	-5.85	2.99	-46.87	0.54
Aralla 190	Villasimpliz Mb.	-2.42	4.24	-42.49	0.80
Aralla 191	Villasimpliz Mb.	-5.37	3.40	-39.91	0.59
Aralla 192	Villasimpliz Mb.	-4.39	3.68	-44.45	0.60
Aralla 193	Villasimpliz Mb.	1.23	4.79	-45.31	0.84
Aralla 194	Villasimpliz Mb.	2.59	4.74	-46.79	0.86
Aralla 195	Villasimpliz Mb.	0.93	4.69	-55.48	0.75
Aralla 196	Villasimpliz Mb.	1.48	4.32	-51.05	0.79
Aralla 197	Villasimpliz Mb.	-2.21	3.72	-42.65	0.74
Aralla 198	Villasimpliz Mb.	-3.25	3.83	-42.66	0.75
Aralla 199	Villasimpliz Mb.	3.88	4.81	-51.66	0.83
Aralla 200	Villasimpliz Mb.	-4.69	3.61	-41.01	0.57

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
Aralla 176	Bernesga Mb.	3.96	0.47	4.00	4.00	1.00	< D.L.	9.00
Aralla 177	Bernesga Mb.	11.50	0.65	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 178	Bernesga Mb.	16.77	0.78	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 179	Bernesga Mb.	4.47	0.48	4.00	4.00	1.00	< D.L.	9.00
Aralla 180	Bernesga Mb.	4.00	0.45	4.00	4.00	1.00	< D.L.	9.00
Aralla 181	Bernesga Mb.	8.20	0.62	4.00	4.00	1.00	< D.L.	9.00
Aralla 182	Bernesga Mb.	4.78	0.47	4.00	4.00	1.00	< D.L.	9.00
Aralla 183	Bernesga Mb.	5.49	0.48	4.00	4.00	1.00	< D.L.	9.00
Aralla 184	Bernesga Mb.	4.64	0.47	4.00	4.00	1.00	< D.L.	9.00
Aralla 185	Villasimpliz Mb.	9.54	0.82	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 186	Villasimpliz Mb.	7.30	0.55	4.00	4.00	1.00	< D.L.	9.00
Aralla 187	Villasimpliz Mb.	5.72	0.50	4.00	4.00	1.00	< D.L.	9.00
Aralla 188	Villasimpliz Mb.	10.88	0.76	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 189	Villasimpliz Mb.	18.10	1.05	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 190	Villasimpliz Mb.	7.00	0.52	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 191	Villasimpliz Mb.	10.80	0.95	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 192	Villasimpliz Mb.	14.58	0.90	4.00	4.00	1.00	< D.L.	9.00
Aralla 193	Villasimpliz Mb.	5.07	0.51	4.00	4.00	1.00	< D.L.	9.00
Aralla 194	Villasimpliz Mb.	4.04	0.46	4.00	4.00	1.00	< D.L.	9.00
Aralla 195	Villasimpliz Mb.	8.98	0.64	4.00	4.00	1.00	< D.L.	9.00
Aralla 196	Villasimpliz Mb.	6.50	0.58	4.00	4.00	1.00	< D.L.	9.00
Aralla 197	Villasimpliz Mb.	6.69	0.64	4.00	4.00	1.00	< D.L.	9.00
Aralla 198	Villasimpliz Mb.	6.62	0.67	4.00	4.00	1.00	< D.L.	9.00
Aralla 199	Villasimpliz Mb.	5.45	0.55	4.00	4.00	1.00	< D.L.	9.00
Aralla 200	Villasimpliz Mb.	16.21	1.07	1.00	< D.L.	1.00	< D.L.	< D.L.

1.9 Aralla 201 - 225

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
Aralla 201	Villasimpliz Mb.	< D.L.	< D.L.	15.87	15.87	15.87
Aralla 202	Villasimpliz Mb.	34.39	12.06	21.06	67.50	33.12
Aralla 203	Villasimpliz Mb.	74.62	36.12	61.33	172.07	97.45
Aralla 204	Villasimpliz Mb.	< D.L.	10.80	24.47	35.27	35.27
Aralla 205	Villasimpliz Mb.	< D.L.	13.81	26.30	40.11	40.11
Aralla 206	Villasimpliz Mb.	< D.L.	12.73	23.72	36.44	36.44
Aralla 207	Villasimpliz Mb.	39.40	29.54	33.60	102.54	63.14
Aralla 208	Villasimpliz Mb.	< D.L.	16.60	16.71	33.31	33.31
Aralla 209	Villasimpliz Mb.	< D.L.	31.22	32.51	63.73	63.73
Aralla 210	Villasimpliz Mb.	42.35	30.90	22.37	95.63	53.28
Aralla 211	Villasimpliz Mb.	< D.L.	11.88	24.96	36.84	36.84
Aralla 212	Villasimpliz Mb.	< D.L.	30.27	16.40	46.67	46.67
Aralla 213	Villasimpliz Mb.	44.89	28.81	32.55	106.26	61.37
Aralla 214	Villasimpliz Mb.	45.67	24.74	36.19	106.60	60.93
Aralla 215	Villasimpliz Mb.	78.85	28.74	66.01	173.60	94.75
Aralla 216	Villasimpliz Mb.	< D.L.	12.62	21.96	34.59	34.59
Aralla 217	Villasimpliz Mb.	47.88	14.99	36.43	99.30	51.42
Aralla 218	Villasimpliz Mb.	< D.L.	11.85	11.65	23.50	23.50
Aralla 219	Villasimpliz Mb.	38.65	21.64	35.00	95.28	56.64
Aralla 220	Villasimpliz Mb.	58.81	28.58	50.56	137.95	79.15
Aralla 221	Villasimpliz Mb.	< D.L.	15.13	17.97	33.10	33.10
Aralla 222	Villasimpliz Mb.	39.17	17.09	34.49	90.75	51.58
Aralla 223	Villasimpliz Mb.	< D.L.	15.79	38.01	53.80	53.80
Aralla 224	Villasimpliz Mb.	< D.L.	9.65	11.42	21.07	21.07
Aralla 225	Villasimpliz Mb.	< D.L.	< D.L.	23.51	23.51	23.51

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
Aralla 201	Villasimpliz Mb.	< D.L.	< D.L.	23.86	23.86	23.86
Aralla 202	Villasimpliz Mb.	41.12	18.99	31.67	91.78	50.66
Aralla 203	Villasimpliz Mb.	89.23	56.88	92.23	238.33	149.11
Aralla 204	Villasimpliz Mb.	< D.L.	17.00	36.80	53.80	53.80
Aralla 205	Villasimpliz Mb.	< D.L.	21.75	39.55	61.30	61.30
Aralla 206	Villasimpliz Mb.	< D.L.	20.04	35.66	55.70	55.70
Aralla 207	Villasimpliz Mb.	47.12	46.52	50.52	144.16	97.04
Aralla 208	Villasimpliz Mb.	< D.L.	26.15	25.12	51.27	51.27
Aralla 209	Villasimpliz Mb.	< D.L.	49.16	48.89	98.05	98.05
Aralla 210	Villasimpliz Mb.	50.64	48.67	33.65	132.95	82.31
Aralla 211	Villasimpliz Mb.	< D.L.	18.71	37.54	56.25	56.25
Aralla 212	Villasimpliz Mb.	< D.L.	47.67	24.67	72.33	72.33
Aralla 213	Villasimpliz Mb.	53.68	45.37	48.95	148.01	94.33
Aralla 214	Villasimpliz Mb.	54.61	38.96	54.43	148.00	93.39
Aralla 215	Villasimpliz Mb.	94.29	45.25	99.27	238.81	144.52
Aralla 216	Villasimpliz Mb.	< D.L.	19.88	33.03	52.91	52.91
Aralla 217	Villasimpliz Mb.	57.25	23.61	54.77	135.64	78.39
Aralla 218	Villasimpliz Mb.	< D.L.	18.66	17.52	36.18	36.18
Aralla 219	Villasimpliz Mb.	46.21	34.08	52.63	132.92	86.71
Aralla 220	Villasimpliz Mb.	70.32	45.01	76.03	191.37	121.05
Aralla 221	Villasimpliz Mb.	< D.L.	23.83	27.03	50.85	50.85
Aralla 222	Villasimpliz Mb.	46.84	26.92	51.86	125.62	78.78
Aralla 223	Villasimpliz Mb.	< D.L.	24.87	57.16	82.03	82.03
Aralla 224	Villasimpliz Mb.	< D.L.	15.20	17.18	32.38	32.38
Aralla 225	Villasimpliz Mb.	< D.L.	< D.L.	35.35	35.35	35.35

Sample	Formation	U	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al2O3*5	10Al2O3
Aralla 201	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	10.73	5.58	42.73	85.46
Aralla 202	Villasimpliz Mb.	5.14	51.40	102.80	3.56	0.80	1.07	14.00	4.58	55.94	111.88
Aralla 203	Villasimpliz Mb.	11.15	111.53	223.07	6.41	3.87	5.19	38.00	6.87	151.78	303.56
Aralla 204	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-1.42	< D.L.	< D.L.	17.06	5.18	69.23	138.46
Aralla 205	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-1.81	< D.L.	< D.L.	17.09	5.27	68.28	136.55
Aralla 206	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-1.67	< D.L.	< D.L.	15.57	4.47	62.22	124.44
Aralla 207	Villasimpliz Mb.	5.89	58.90	117.80	2.01	1.34	1.80	21.56	5.62	86.23	172.45
Aralla 208	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-2.18	< D.L.	< D.L.	10.32	3.91	40.15	80.29
Aralla 209	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-4.10	< D.L.	< D.L.	21.96	4.90	88.86	177.72
Aralla 210	Villasimpliz Mb.	6.33	63.30	126.60	2.27	1.63	2.18	15.22	4.04	61.25	122.51
Aralla 211	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-1.56	< D.L.	< D.L.	15.91	5.14	63.18	126.37
Aralla 212	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-3.97	< D.L.	< D.L.	9.77	3.93	37.61	75.23
Aralla 213	Villasimpliz Mb.	6.71	67.10	134.20	2.93	1.86	2.49	20.11	4.03	79.61	159.23
Aralla 214	Villasimpliz Mb.	6.83	68.27	136.53	3.58	1.93	2.58	21.06	5.15	82.16	164.32
Aralla 215	Villasimpliz Mb.	11.79	117.87	235.73	8.02	4.09	5.48	35.66	7.61	137.30	274.61
Aralla 216	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-1.66	< D.L.	< D.L.	13.35	4.43	52.16	104.32
Aralla 217	Villasimpliz Mb.	7.16	71.57	143.13	5.19	2.11	2.83	23.45	6.15	93.97	187.95
Aralla 218	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-1.56	< D.L.	< D.L.	7.31	3.82	28.16	56.32
Aralla 219	Villasimpliz Mb.	5.78	57.77	115.53	2.94	1.26	1.69	21.36	5.27	84.39	168.77
Aralla 220	Villasimpliz Mb.	8.79	87.90	175.80	5.04	2.93	3.92	29.73	5.63	116.88	233.76
Aralla 221	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-1.99	< D.L.	< D.L.	10.03	3.86	37.98	75.96
Aralla 222	Villasimpliz Mb.	5.86	58.55	117.10	3.61	1.32	1.77	21.47	5.41	85.23	170.47
Aralla 223	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-2.07	< D.L.	< D.L.	22.91	4.97	90.34	180.69
Aralla 224	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-1.27	< D.L.	< D.L.	6.40	4.14	23.73	47.46
Aralla 225	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	13.94	5.02	54.18	108.36

Sample	Formation	15Al2O3	Al2O3/10	K2O*5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	200TiO2	300TiO2	K2O/Al2O3
Aralla 201	Villasimpliz Mb.	128.19	0.85	7.46	< D.L.	< D.L.	27741.43	3.90	5.02	106.82	160.23	0.17
Aralla 202	Villasimpliz Mb.	167.82	1.12	9.90	< D.L.	< D.L.	17254.42	3.21	4.12	125.88	188.82	0.18
Aralla 203	Villasimpliz Mb.	455.34	3.04	28.82	< D.L.	17.54	-4412.90	3.58	4.60	251.96	377.94	0.19
Aralla 204	Villasimpliz Mb.	207.69	1.38	11.50	< D.L.	< D.L.	17902.81	3.62	4.66	103.78	155.68	0.17
Aralla 205	Villasimpliz Mb.	204.83	1.37	12.36	< D.L.	6.85	13994.95	3.21	4.12	113.59	170.38	0.18
Aralla 206	Villasimpliz Mb.	186.66	1.24	11.15	< D.L.	< D.L.	14786.11	3.13	4.02	84.82	127.23	0.18
Aralla 207	Villasimpliz Mb.	258.68	1.72	15.79	< D.L.	10.09	9411.59	3.22	4.15	165.69	248.54	0.18
Aralla 208	Villasimpliz Mb.	120.44	0.80	7.85	< D.L.	< D.L.	16734.94	2.74	3.52	84.02	126.02	0.20
Aralla 209	Villasimpliz Mb.	266.58	1.78	15.28	< D.L.	10.57	3342.58	2.69	3.46	144.88	217.32	0.17
Aralla 210	Villasimpliz Mb.	183.76	1.23	10.51	< D.L.	< D.L.	12055.41	2.83	3.64	134.97	202.45	0.17
Aralla 211	Villasimpliz Mb.	189.55	1.26	11.73	< D.L.	< D.L.	19249.77	3.60	4.63	111.94	167.92	0.19
Aralla 212	Villasimpliz Mb.	112.84	0.75	7.71	< D.L.	< D.L.	17522.11	2.75	3.53	121.68	182.52	0.20
Aralla 213	Villasimpliz Mb.	238.84	1.59	15.30	< D.L.	< D.L.	7103.05	2.82	3.62	154.92	232.37	0.19
Aralla 214	Villasimpliz Mb.	246.48	1.64	17.01	< D.L.	9.87	7404.00	2.91	3.75	158.26	237.39	0.21
Aralla 215	Villasimpliz Mb.	411.91	2.75	31.02	< D.L.	15.76	5855.88	4.22	5.43	258.07	387.11	0.23
Aralla 216	Villasimpliz Mb.	156.48	1.04	10.32	< D.L.	< D.L.	17164.10	3.10	3.98	120.27	180.41	0.20
Aralla 217	Villasimpliz Mb.	281.92	1.88	17.12	< D.L.	10.38	10872.30	3.57	4.60	157.15	235.73	0.18
Aralla 218	Villasimpliz Mb.	84.48	0.56	5.47	< D.L.	< D.L.	19268.06	2.67	3.44	57.66	86.49	0.19
Aralla 219	Villasimpliz Mb.	253.16	1.69	16.45	< D.L.	10.80	6977.08	2.93	3.77	134.46	201.69	0.19
Aralla 220	Villasimpliz Mb.	350.64	2.34	23.76	< D.L.	12.12	-51.47	3.09	3.97	173.12	259.68	0.20
Aralla 221	Villasimpliz Mb.	113.94	0.76	8.45	< D.L.	< D.L.	16944.65	2.70	3.47	70.35	105.53	0.22
Aralla 222	Villasimpliz Mb.	255.70	1.70	16.21	< D.L.	10.21	8122.47	3.07	3.95	138.23	207.34	0.19
Aralla 223	Villasimpliz Mb.	271.03	1.81	17.86	< D.L.	9.89	3923.42	2.78	3.58	150.84	226.26	0.20
Aralla 224	Villasimpliz Mb.	71.19	0.47	5.37	< D.L.	< D.L.	22674.49	2.90	3.72	73.58	110.38	0.23
Aralla 225	Villasimpliz Mb.	162.54	1.08	11.05	< D.L.	< D.L.	20765.58	3.51	4.52	94.74	142.11	0.20

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
Aralla 201	Villasimpliz Mb.	-0.76	< D.L.	0.75	0.93	0.47	2.15	-0.33	12.31
Aralla 202	Villasimpliz Mb.	-0.75	< D.L.	0.66	0.81	0.42	2.39	-0.38	13.49
Aralla 203	Villasimpliz Mb.	-0.72	0.06	0.71	0.26	0.33	3.07	-0.49	16.17
Aralla 204	Villasimpliz Mb.	-0.78	< D.L.	0.71	0.70	0.40	2.51	-0.40	15.08
Aralla 205	Villasimpliz Mb.	-0.74	0.05	0.66	0.71	0.39	2.56	-0.41	14.14
Aralla 206	Villasimpliz Mb.	-0.75	< D.L.	0.65	0.78	0.40	2.48	-0.39	13.85
Aralla 207	Villasimpliz Mb.	-0.74	0.06	0.66	0.60	0.37	2.73	-0.44	14.92
Aralla 208	Villasimpliz Mb.	-0.71	< D.L.	0.59	0.99	0.46	2.19	-0.34	11.21
Aralla 209	Villasimpliz Mb.	-0.76	0.06	0.58	0.61	0.37	2.71	-0.43	15.76
Aralla 210	Villasimpliz Mb.	-0.77	< D.L.	0.61	0.79	0.41	2.44	-0.39	14.19
Aralla 211	Villasimpliz Mb.	-0.73	< D.L.	0.71	0.73	0.40	2.52	-0.40	13.57
Aralla 212	Villasimpliz Mb.	-0.69	< D.L.	0.59	1.01	0.46	2.18	-0.34	10.62
Aralla 213	Villasimpliz Mb.	-0.72	< D.L.	0.61	0.66	0.37	2.71	-0.43	14.11
Aralla 214	Villasimpliz Mb.	-0.68	0.06	0.62	0.63	0.36	2.78	-0.44	13.43
Aralla 215	Villasimpliz Mb.	-0.65	0.06	0.78	0.29	0.32	3.10	-0.49	13.73
Aralla 216	Villasimpliz Mb.	-0.70	< D.L.	0.65	0.86	0.41	2.42	-0.38	12.23
Aralla 217	Villasimpliz Mb.	-0.74	0.06	0.71	0.55	0.36	2.78	-0.44	15.29
Aralla 218	Villasimpliz Mb.	-0.71	< D.L.	0.58	1.15	0.53	1.87	-0.27	9.64
Aralla 219	Villasimpliz Mb.	-0.71	0.06	0.62	0.62	0.36	2.76	-0.44	14.16
Aralla 220	Villasimpliz Mb.	-0.69	0.05	0.64	0.43	0.34	2.98	-0.47	14.63
Aralla 221	Villasimpliz Mb.	-0.65	< D.L.	0.59	1.01	0.44	2.26	-0.35	10.14
Aralla 222	Villasimpliz Mb.	-0.72	0.06	0.64	0.62	0.36	2.75	-0.44	14.46
Aralla 223	Villasimpliz Mb.	-0.70	0.05	0.60	0.58	0.36	2.81	-0.45	14.22
Aralla 224	Villasimpliz Mb.	-0.65	< D.L.	0.62	1.23	0.54	1.86	-0.27	8.21
Aralla 225	Villasimpliz Mb.	-0.69	< D.L.	0.70	0.84	0.40	2.47	-0.39	12.14

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
Aralla 201	Villasimpliz Mb.	0.69	2.19	5.58	8.51	0.93	0.12	0.65	27.79	0.00
Aralla 202	Villasimpliz Mb.	0.83	2.81	4.58	6.44	0.81	0.16	0.41	29.43	0.00
Aralla 203	Villasimpliz Mb.	1.88	7.64	6.87	1.82	0.26	0.55	0.17	33.93	0.00
Aralla 204	Villasimpliz Mb.	0.92	3.22	5.18	5.00	0.70	0.20	0.37	27.35	0.00
Aralla 205	Villasimpliz Mb.	0.97	3.44	5.27	5.16	0.71	0.19	0.34	26.99	0.00
Aralla 206	Villasimpliz Mb.	0.90	3.13	4.47	6.03	0.78	0.17	0.36	26.78	0.00
Aralla 207	Villasimpliz Mb.	1.16	4.31	5.62	3.94	0.60	0.25	0.27	26.50	0.00
Aralla 208	Villasimpliz Mb.	0.72	2.29	3.91	9.79	0.99	0.10	0.49	30.29	0.00
Aralla 209	Villasimpliz Mb.	1.13	4.18	4.90	4.09	0.61	0.24	0.22	28.06	0.00
Aralla 210	Villasimpliz Mb.	0.86	2.97	4.04	6.20	0.79	0.16	0.33	27.46	0.00
Aralla 211	Villasimpliz Mb.	0.93	3.28	5.14	5.43	0.73	0.18	0.41	27.31	0.00
Aralla 212	Villasimpliz Mb.	0.71	2.25	3.93	10.16	1.01	0.10	0.52	28.79	0.00
Aralla 213	Villasimpliz Mb.	1.13	4.19	4.03	4.59	0.66	0.22	0.25	28.27	0.00
Aralla 214	Villasimpliz Mb.	1.22	4.63	5.15	4.27	0.63	0.23	0.25	26.25	0.00
Aralla 215	Villasimpliz Mb.	2.00	8.20	7.61	1.95	0.29	0.51	0.22	31.11	0.00
Aralla 216	Villasimpliz Mb.	0.85	2.92	4.43	7.19	0.86	0.14	0.42	28.03	0.00
Aralla 217	Villasimpliz Mb.	1.23	4.65	6.15	3.58	0.55	0.28	0.27	26.42	0.00
Aralla 218	Villasimpliz Mb.	0.58	1.68	3.82	14.21	1.15	0.07	0.68	32.12	0.00
Aralla 219	Villasimpliz Mb.	1.19	4.48	5.27	4.18	0.62	0.24	0.25	26.55	0.00
Aralla 220	Villasimpliz Mb.	1.60	6.35	5.63	2.68	0.43	0.37	0.19	26.61	0.00
Aralla 221	Villasimpliz Mb.	0.75	2.44	3.86	10.13	1.01	0.10	0.51	28.57	0.00
Aralla 222	Villasimpliz Mb.	1.18	4.42	5.41	4.19	0.62	0.24	0.26	26.48	0.00
Aralla 223	Villasimpliz Mb.	1.27	4.84	4.97	3.80	0.58	0.26	0.22	25.80	0.00
Aralla 224	Villasimpliz Mb.	0.58	1.65	4.14	16.79	1.23	0.06	0.87	32.76	0.00
Aralla 225	Villasimpliz Mb.	0.89	3.10	5.02	6.85	0.84	0.15	0.46	25.68	0.00

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Ti Cal (ppm)	Zr/Sc	Cr/Th	Th/Sc
Aralla 201	Villasimpliz Mb.	16.00	0.07	410.92	0.38	65.68	1.50	< D.L.	1.05	< D.L.	< D.L.	< D.L.	3201.52	< D.L.	< D.L.	< D.L.
Aralla 202	Villasimpliz Mb.	17.78	0.06	355.97	< D.L.	87.39	0.89	0.47	1.16	< D.L.	< D.L.	1.58	3772.62	< D.L.	5.78	< D.L.
Aralla 203	Villasimpliz Mb.	24.10	0.05	324.99	0.57	169.49	0.37	0.55	0.85	< D.L.	< D.L.	4.74	7551.40	< D.L.	7.54	< D.L.
Aralla 204	Villasimpliz Mb.	26.68	0.09	513.42	< D.L.	78.44	0.53	0.61	1.21	< D.L.	< D.L.	1.42	3110.44	< D.L.	9.02	< D.L.
Aralla 205	Villasimpliz Mb.	24.04	0.07	397.18	< D.L.	81.72	0.64	0.51	1.12	< D.L.	< D.L.	1.81	3404.27	< D.L.	6.26	< D.L.
Aralla 206	Villasimpliz Mb.	29.34	0.08	504.07	< D.L.	74.41	0.90	0.34	1.01	< D.L.	< D.L.	1.67	2542.00	< D.L.	4.02	< D.L.
Aralla 207	Villasimpliz Mb.	20.82	0.06	388.23	< D.L.	112.83	0.54	0.67	1.25	< D.L.	< D.L.	3.88	4965.80	< D.L.	4.80	< D.L.
Aralla 208	Villasimpliz Mb.	19.11	0.07	437.69	< D.L.	51.67	0.58	0.48	1.05	< D.L.	< D.L.	2.18	2517.99	< D.L.	3.46	< D.L.
Aralla 209	Villasimpliz Mb.	24.53	0.05	309.80	< D.L.	88.61	0.62	0.55	0.79	< D.L.	< D.L.	4.10	4342.16	< D.L.	3.80	< D.L.
Aralla 210	Villasimpliz Mb.	18.15	0.07	397.83	< D.L.	86.93	0.56	0.73	1.39	< D.L.	< D.L.	4.06	4045.02	< D.L.	3.45	< D.L.
Aralla 211	Villasimpliz Mb.	22.58	0.08	456.72	< D.L.	87.76	0.75	0.42	1.27	< D.L.	< D.L.	1.56	3355.02	< D.L.	5.77	< D.L.
Aralla 212	Villasimpliz Mb.	12.36	0.07	389.53	< D.L.	67.74	0.62	0.69	1.36	< D.L.	< D.L.	3.97	3646.78	< D.L.	2.56	< D.L.
Aralla 213	Villasimpliz Mb.	20.56	0.06	351.75	< D.L.	81.67	0.36	0.59	0.98	< D.L.	< D.L.	3.78	4642.88	< D.L.	4.48	< D.L.
Aralla 214	Villasimpliz Mb.	20.77	0.06	377.67	< D.L.	82.00	0.45	0.46	1.02	< D.L.	6.18	3.25	4743.15	23.12	4.25	0.66
Aralla 215	Villasimpliz Mb.	21.28	0.06	340.47	0.54	178.85	0.39	0.56	0.95	< D.L.	< D.L.	3.77	7734.50	< D.L.	9.52	< D.L.
Aralla 216	Villasimpliz Mb.	17.35	0.06	342.98	< D.L.	52.50	0.69	0.26	0.93	< D.L.	3.28	1.66	3604.65	19.92	3.06	0.30
Aralla 217	Villasimpliz Mb.	23.92	0.06	373.06	< D.L.	103.88	0.58	0.56	1.02	< D.L.	< D.L.	1.97	4709.98	< D.L.	8.54	< D.L.
Aralla 218	Villasimpliz Mb.	19.54	0.31	1836.87	< D.L.	39.34	1.15	< D.L.	0.97	< D.L.	< D.L.	1.56	1728.10	< D.L.	< D.L.	< D.L.
Aralla 219	Villasimpliz Mb.	25.10	0.06	338.00	< D.L.	96.37	0.71	0.53	0.82	< D.L.	< D.L.	2.84	4029.81	< D.L.	5.39	< D.L.
Aralla 220	Villasimpliz Mb.	27.01	0.06	365.95	< D.L.	104.21	0.35	0.49	0.96	< D.L.	< D.L.	3.75	5188.46	< D.L.	5.53	< D.L.
Aralla 221	Villasimpliz Mb.	21.60	0.09	533.26	< D.L.	30.57	0.61	< D.L.	1.04	< D.L.	< D.L.	1.99	2108.45	< D.L.	< D.L.	< D.L.
Aralla 222	Villasimpliz Mb.	24.66	0.06	381.49	< D.L.	83.39	0.52	0.47	0.96	< D.L.	< D.L.	2.24	4142.78	< D.L.	5.97	< D.L.
Aralla 223	Villasimpliz Mb.	23.96	0.07	394.51	< D.L.	88.61	0.49	0.54	0.87	< D.L.	< D.L.	2.07	4520.71	< D.L.	7.97	< D.L.
Aralla 224	Villasimpliz Mb.	12.90	0.12	735.76	< D.L.	63.78	0.95	0.49	1.40	< D.L.	< D.L.	1.27	2205.33	< D.L.	4.49	< D.L.
Aralla 225	Villasimpliz Mb.	22.88	0.06	374.51	< D.L.	67.26	0.72	0.46	1.00	< D.L.	< D.L.	< D.L.	2839.33	< D.L.	< D.L.	< D.L.

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
Aralla 201	Villasimpliz Mb.	5.76	0.17	0.07	30.67	< D.L.	3.92	< D.L.	< D.L.	< D.L.
Aralla 202	Villasimpliz Mb.	5.42	0.18	0.08	29.77	11.50	2.55	< D.L.	0.41	2.46
Aralla 203	Villasimpliz Mb.	1.14	0.87	0.03	9.64	2.09	2.74	< D.L.	0.64	1.56
Aralla 204	Villasimpliz Mb.	2.94	0.34	0.06	30.48	4.82	2.69	< D.L.	0.50	1.99
Aralla 205	Villasimpliz Mb.	3.94	0.25	0.08	30.67	7.72	1.83	< D.L.	0.46	2.19
Aralla 206	Villasimpliz Mb.	3.09	0.32	0.07	36.59	9.16	1.41	< D.L.	0.33	3.00
Aralla 207	Villasimpliz Mb.	4.14	0.24	0.07	27.05	6.20	2.28	< D.L.	0.53	1.88
Aralla 208	Villasimpliz Mb.	5.62	0.18	0.11	46.47	11.81	-0.23	< D.L.	0.45	2.21
Aralla 209	Villasimpliz Mb.	4.09	0.24	0.08	25.00	7.49	1.81	< D.L.	0.69	1.44
Aralla 210	Villasimpliz Mb.	6.87	0.15	0.10	39.02	9.45	0.82	< D.L.	0.52	1.91
Aralla 211	Villasimpliz Mb.	3.76	0.27	0.07	32.76	8.91	2.74	< D.L.	0.33	3.00
Aralla 212	Villasimpliz Mb.	8.97	0.11	0.11	42.51	13.03	-0.08	< D.L.	0.51	1.97
Aralla 213	Villasimpliz Mb.	4.08	0.25	0.08	26.72	6.93	1.04	< D.L.	0.60	1.67
Aralla 214	Villasimpliz Mb.	3.82	0.26	0.07	27.16	8.24	1.73	< D.L.	0.45	2.20
Aralla 215	Villasimpliz Mb.	1.17	0.86	0.03	9.91	2.09	3.63	< D.L.	0.59	1.70
Aralla 216	Villasimpliz Mb.	5.66	0.18	0.09	31.18	21.56	1.25	< D.L.	0.28	3.54
Aralla 217	Villasimpliz Mb.	3.61	0.28	0.07	25.89	6.48	3.30	< D.L.	0.55	1.83
Aralla 218	Villasimpliz Mb.	4.75	0.21	0.10	177.59	< D.L.	-1.32	< D.L.	< D.L.	< D.L.
Aralla 219	Villasimpliz Mb.	3.84	0.26	0.08	28.09	7.29	1.99	< D.L.	0.64	1.55
Aralla 220	Villasimpliz Mb.	2.26	0.44	0.06	20.18	4.60	2.54	< D.L.	0.51	1.95
Aralla 221	Villasimpliz Mb.	4.23	0.24	0.10	51.60	< D.L.	-0.43	< D.L.	< D.L.	< D.L.
Aralla 222	Villasimpliz Mb.	3.31	0.30	0.07	26.17	7.07	2.13	< D.L.	0.49	2.05
Aralla 223	Villasimpliz Mb.	3.12	0.32	0.06	25.06	5.80	2.16	< D.L.	0.62	1.62
Aralla 224	Villasimpliz Mb.	6.21	0.16	0.10	72.87	12.80	-0.98	< D.L.	0.35	2.89
Aralla 225	Villasimpliz Mb.	4.12	0.24	0.08	30.81	8.88	2.51	< D.L.	0.46	2.16

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
Aralla 201	Villasimpliz Mb.	2.84	< D.L.	9.66	8.42	< D.L.	3.21	14.52	< D.L.
Aralla 202	Villasimpliz Mb.	1.39	0.87	11.38	< D.L.	< D.L.	2.60	10.12	4.63
Aralla 203	Villasimpliz Mb.	1.13	0.69	10.39	2.65	< D.L.	1.51	3.87	6.68
Aralla 204	Villasimpliz Mb.	1.74	< D.L.	10.41	< D.L.	< D.L.	1.97	5.48	5.23
Aralla 205	Villasimpliz Mb.	1.33	< D.L.	10.32	< D.L.	< D.L.	2.16	6.60	4.71
Aralla 206	Villasimpliz Mb.	1.16	< D.L.	9.16	< D.L.	< D.L.	1.92	8.24	3.06
Aralla 207	Villasimpliz Mb.	1.10	0.65	11.50	< D.L.	< D.L.	1.66	6.24	6.12
Aralla 208	Villasimpliz Mb.	1.37	< D.L.	11.79	< D.L.	< D.L.	< D.L.	6.83	5.33
Aralla 209	Villasimpliz Mb.	0.64	< D.L.	7.16	< D.L.	< D.L.	1.37	4.45	4.97
Aralla 210	Villasimpliz Mb.	0.85	0.98	12.37	< D.L.	< D.L.	1.95	6.93	6.47
Aralla 211	Villasimpliz Mb.	1.97	< D.L.	12.13	< D.L.	< D.L.	2.40	9.09	4.04
Aralla 212	Villasimpliz Mb.	1.81	< D.L.	15.11	< D.L.	< D.L.	2.62	9.34	7.67
Aralla 213	Villasimpliz Mb.	0.82	0.80	10.07	< D.L.	< D.L.	< D.L.	3.65	6.04
Aralla 214	Villasimpliz Mb.	0.81	0.79	10.49	< D.L.	< D.L.	1.71	4.67	4.76
Aralla 215	Villasimpliz Mb.	1.57	0.81	12.56	2.72	< D.L.	1.46	4.90	7.41
Aralla 216	Villasimpliz Mb.	1.09	< D.L.	9.76	< D.L.	< D.L.	2.55	6.76	2.75
Aralla 217	Villasimpliz Mb.	1.25	0.72	9.29	< D.L.	< D.L.	1.94	5.37	5.07
Aralla 218	Villasimpliz Mb.	< D.L.	< D.L.	11.48	< D.L.	< D.L.	< D.L.	13.20	< D.L.
Aralla 219	Villasimpliz Mb.	0.72	0.65	7.98	< D.L.	< D.L.	1.45	5.64	5.15
Aralla 220	Villasimpliz Mb.	0.87	0.71	9.78	< D.L.	< D.L.	1.18	3.40	5.03
Aralla 221	Villasimpliz Mb.	1.28	< D.L.	12.46	< D.L.	< D.L.	4.56	7.60	< D.L.
Aralla 222	Villasimpliz Mb.	0.87	0.65	9.12	< D.L.	< D.L.	1.67	4.79	4.45
Aralla 223	Villasimpliz Mb.	0.70	< D.L.	8.40	< D.L.	< D.L.	1.71	4.09	5.18
Aralla 224	Villasimpliz Mb.	1.98	< D.L.	19.61	< D.L.	< D.L.	3.10	18.60	6.79
Aralla 225	Villasimpliz Mb.	1.54	< D.L.	9.90	< D.L.	< D.L.	3.14	7.14	4.59

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
Aralla 201	Villasimpliz Mb.	< D.L.	36.07	101.85	35.88	52.83	0.40	69.61	< D.L.
Aralla 202	Villasimpliz Mb.	< D.L.	27.69	74.24	25.13	53.28	0.53	50.74	< D.L.
Aralla 203	Villasimpliz Mb.	< D.L.	11.42	28.15	33.40	13.94	0.73	19.24	< D.L.
Aralla 204	Villasimpliz Mb.	< D.L.	22.29	62.71	23.07	25.20	0.66	42.86	< D.L.
Aralla 205	Villasimpliz Mb.	< D.L.	23.38	61.59	16.91	36.38	0.61	42.09	< D.L.
Aralla 206	Villasimpliz Mb.	< D.L.	25.16	66.55	12.75	28.02	0.53	45.48	< D.L.
Aralla 207	Villasimpliz Mb.	< D.L.	19.12	47.90	20.91	37.91	0.65	32.73	< D.L.
Aralla 208	Villasimpliz Mb.	< D.L.	39.15	97.11	-2.58	62.92	0.63	66.36	< D.L.
Aralla 209	Villasimpliz Mb.	< D.L.	18.47	46.27	16.46	37.25	0.62	31.62	< D.L.
Aralla 210	Villasimpliz Mb.	< D.L.	27.23	68.58	7.32	61.19	0.64	46.87	< D.L.
Aralla 211	Villasimpliz Mb.	< D.L.	24.94	66.65	26.22	35.99	0.57	45.55	< D.L.
Aralla 212	Villasimpliz Mb.	< D.L.	44.00	107.95	-0.88	99.97	0.62	73.77	< D.L.
Aralla 213	Villasimpliz Mb.	< D.L.	20.41	52.76	10.66	41.86	0.73	36.06	< D.L.
Aralla 214	Villasimpliz Mb.	< D.L.	19.70	51.08	17.77	39.22	0.69	34.90	< D.L.
Aralla 215	Villasimpliz Mb.	< D.L.	12.59	34.28	48.14	15.49	0.72	23.43	< D.L.
Aralla 216	Villasimpliz Mb.	< D.L.	29.67	85.66	13.08	59.35	0.59	58.54	< D.L.
Aralla 217	Villasimpliz Mb.	< D.L.	16.99	44.24	30.00	32.86	0.63	30.23	< D.L.
Aralla 218	Villasimpliz Mb.	< D.L.	52.64	148.42	-15.61	56.05	0.47	101.43	< D.L.
Aralla 219	Villasimpliz Mb.	< D.L.	18.95	48.52	19.43	37.50	0.59	33.16	< D.L.
Aralla 220	Villasimpliz Mb.	< D.L.	13.89	49.18	25.95	23.13	0.74	33.61	< D.L.
Aralla 221	Villasimpliz Mb.	< D.L.	39.79	107.63	-5.19	50.75	0.62	73.55	< D.L.
Aralla 222	Villasimpliz Mb.	< D.L.	18.59	51.81	20.27	31.50	0.66	35.40	< D.L.
Aralla 223	Villasimpliz Mb.	< D.L.	17.67	46.33	20.78	30.03	0.67	31.66	< D.L.
Aralla 224	Villasimpliz Mb.	< D.L.	62.65	203.46	-13.68	86.96	0.51	139.04	< D.L.
Aralla 225	Villasimpliz Mb.	< D.L.	28.58	93.68	24.80	40.73	0.58	64.02	< D.L.

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
Aralla 201	Villasimpliz Mb.	< D.L.	< D.L.	1.72	< D.L.	< D.L.	3.74	0.57	1.29	< D.L.	< D.L.	< D.L.
Aralla 202	Villasimpliz Mb.	0.92	1.08	2.28	61.38	< D.L.	2.32	0.36	0.82	0.00	< D.L.	< D.L.
Aralla 203	Villasimpliz Mb.	1.28	0.78	2.29	20.07	< D.L.	0.89	-0.05	1.81	0.01	< D.L.	< D.L.
Aralla 204	Villasimpliz Mb.	< D.L.	< D.L.	1.52	< D.L.	< D.L.	2.25	0.35	1.28	0.00	< D.L.	< D.L.
Aralla 205	Villasimpliz Mb.	< D.L.	< D.L.	1.95	< D.L.	< D.L.	1.85	0.27	0.96	0.00	< D.L.	< D.L.
Aralla 206	Villasimpliz Mb.	< D.L.	< D.L.	1.47	< D.L.	< D.L.	2.00	0.30	0.77	0.00	< D.L.	< D.L.
Aralla 207	Villasimpliz Mb.	1.97	0.51	2.46	58.74	< D.L.	1.46	0.16	1.01	0.01	< D.L.	< D.L.
Aralla 208	Villasimpliz Mb.	< D.L.	< D.L.	1.89	< D.L.	< D.L.	2.49	0.40	0.58	0.00	< D.L.	< D.L.
Aralla 209	Villasimpliz Mb.	< D.L.	< D.L.	2.51	< D.L.	< D.L.	1.26	0.10	0.60	0.00	< D.L.	< D.L.
Aralla 210	Villasimpliz Mb.	1.92	0.52	2.57	62.68	< D.L.	1.92	0.28	0.55	0.00	< D.L.	< D.L.
Aralla 211	Villasimpliz Mb.	< D.L.	< D.L.	1.83	< D.L.	< D.L.	2.19	0.34	1.32	0.00	< D.L.	< D.L.
Aralla 212	Villasimpliz Mb.	< D.L.	< D.L.	2.53	< D.L.	< D.L.	2.55	0.41	0.72	0.00	< D.L.	< D.L.
Aralla 213	Villasimpliz Mb.	1.69	0.59	2.55	52.57	< D.L.	1.32	0.12	0.69	0.01	< D.L.	< D.L.
Aralla 214	Villasimpliz Mb.	1.43	0.70	2.51	49.96	< D.L.	1.23	0.09	0.70	0.00	< D.L.	< D.L.
Aralla 215	Villasimpliz Mb.	0.96	1.04	2.28	19.09	< D.L.	0.97	-0.01	2.28	0.01	< D.L.	< D.L.
Aralla 216	Villasimpliz Mb.	< D.L.	< D.L.	2.35	< D.L.	< D.L.	2.14	0.33	0.60	0.00	< D.L.	< D.L.
Aralla 217	Villasimpliz Mb.	0.82	1.21	2.47	45.67	< D.L.	1.49	0.17	1.24	0.01	< D.L.	< D.L.
Aralla 218	Villasimpliz Mb.	< D.L.	< D.L.	1.29	< D.L.	< D.L.	3.49	0.54	< D.L.	< D.L.	< D.L.	< D.L.
Aralla 219	Villasimpliz Mb.	1.47	0.68	2.49	57.98	< D.L.	1.27	0.11	0.64	0.00	< D.L.	< D.L.
Aralla 220	Villasimpliz Mb.	1.28	0.78	2.40	32.55	< D.L.	0.93	-0.03	1.08	0.01	< D.L.	< D.L.
Aralla 221	Villasimpliz Mb.	< D.L.	< D.L.	1.58	< D.L.	< D.L.	2.28	0.36	0.51	< D.L.	< D.L.	< D.L.
Aralla 222	Villasimpliz Mb.	1.15	0.87	2.21	48.54	< D.L.	1.35	0.13	0.79	0.00	< D.L.	< D.L.
Aralla 223	Villasimpliz Mb.	< D.L.	< D.L.	2.24	< D.L.	< D.L.	1.11	0.05	0.67	0.00	< D.L.	< D.L.
Aralla 224	Villasimpliz Mb.	< D.L.	< D.L.	1.61	< D.L.	< D.L.	3.86	0.59	0.50	0.00	< D.L.	< D.L.
Aralla 225	Villasimpliz Mb.	< D.L.	< D.L.	1.77	< D.L.	< D.L.	2.27	0.36	0.88	0.00	< D.L.	< D.L.

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	V (wt%)	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
Aralla 201	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	< D.L.	0.00	3.20	23.89	385341.47	802.17	2.07
Aralla 202	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	3.56	0.01	3.80	31.55	396062.41	753.50	-3.12
Aralla 203	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	6.41	0.02	7.66	22.39	419053.99	865.40	-24.14
Aralla 204	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-1.42	0.01	3.15	18.47	396837.89	545.30	-4.92
Aralla 205	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-1.81	0.01	3.44	26.29	401507.77	632.63	-5.97
Aralla 206	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-1.67	0.01	2.56	18.45	416317.06	669.23	-4.82
Aralla 207	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	2.01	0.01	5.02	34.60	408830.04	721.47	-10.07
Aralla 208	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-2.18	0.01	2.54	26.74	409864.57	290.25	-0.91
Aralla 209	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-4.10	0.01	4.39	35.04	434082.37	547.22	-12.32
Aralla 210	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	2.27	0.01	4.09	39.68	420078.26	575.97	-5.51
Aralla 211	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-1.56	0.01	3.38	24.07	387725.29	768.23	-3.60
Aralla 212	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-3.97	0.01	3.68	39.80	396989.33	476.37	-0.29
Aralla 213	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	2.93	0.01	4.69	35.27	425596.97	307.97	-9.78
Aralla 214	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	3.58	0.01	4.78	34.11	414958.43	554.22	-10.07
Aralla 215	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	8.02	0.02	7.84	22.51	396010.88	924.80	-18.83
Aralla 216	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-1.66	0.01	3.62	32.77	405811.85	513.92	-2.58
Aralla 217	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	5.19	0.01	4.76	32.68	413839.09	726.90	-10.78
Aralla 218	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-1.56	0.00	1.73	16.71	403946.59	393.40	1.67
Aralla 219	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	2.94	0.01	4.08	33.49	418911.47	633.27	-10.54
Aralla 220	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	5.04	0.01	5.25	28.61	417029.88	566.33	-17.57
Aralla 221	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-1.99	0.01	2.11	20.40	399791.89	489.20	-0.52
Aralla 222	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	3.61	0.01	4.18	28.42	424270.69	582.92	-10.31
Aralla 223	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-2.07	0.01	4.57	28.72	416498.19	554.07	-12.37
Aralla 224	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-1.27	0.00	2.22	21.84	397553.55	545.00	3.37
Aralla 225	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	< D.L.	0.01	2.87	23.36	404167.78	589.83	-1.78

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
Aralla 201	Villasimpliz Mb.	0.97	4.61	3.45	0.22	91.04	92.49
Aralla 202	Villasimpliz Mb.	-1.46	6.04	1.79	-4.44	91.74	93.10
Aralla 203	Villasimpliz Mb.	-11.28	16.39	-2.48	0.82	92.91	94.17
Aralla 204	Villasimpliz Mb.	-2.30	7.48	1.72	3.96	92.63	93.78
Aralla 205	Villasimpliz Mb.	-2.79	7.37	1.17	1.72	92.05	93.39
Aralla 206	Villasimpliz Mb.	-2.25	6.72	1.36	2.52	91.92	93.27
Aralla 207	Villasimpliz Mb.	-4.70	9.31	0.30	1.07	92.42	93.72
Aralla 208	Villasimpliz Mb.	-0.42	4.34	1.90	-0.29	90.02	91.81
Aralla 209	Villasimpliz Mb.	-5.76	9.60	-0.60	0.91	92.88	94.03
Aralla 210	Villasimpliz Mb.	-2.57	6.62	0.98	1.61	92.16	93.42
Aralla 211	Villasimpliz Mb.	-1.68	6.82	1.98	-5.56	91.70	93.14
Aralla 212	Villasimpliz Mb.	-0.13	4.06	2.05	-0.07	89.42	91.40
Aralla 213	Villasimpliz Mb.	-4.57	8.60	0.05	1.01	91.93	93.38
Aralla 214	Villasimpliz Mb.	-4.71	8.87	0.06	1.01	91.42	93.07
Aralla 215	Villasimpliz Mb.	-8.80	14.83	-0.83	0.91	91.40	93.21
Aralla 216	Villasimpliz Mb.	-1.21	5.63	1.82	-1.97	90.75	92.44
Aralla 217	Villasimpliz Mb.	-5.04	10.15	0.41	1.09	92.59	93.86
Aralla 218	Villasimpliz Mb.	0.78	3.04	2.41	0.24	88.59	90.60
Aralla 219	Villasimpliz Mb.	-4.92	9.11	-0.03	0.99	91.93	93.40
Aralla 220	Villasimpliz Mb.	-8.21	12.62	-1.43	0.85	92.10	93.60
Aralla 221	Villasimpliz Mb.	-0.24	4.10	1.96	-0.14	88.75	91.03
Aralla 222	Villasimpliz Mb.	-4.82	9.21	0.12	1.03	92.13	93.53
Aralla 223	Villasimpliz Mb.	-5.78	9.76	-0.54	0.91	91.94	93.43
Aralla 224	Villasimpliz Mb.	1.58	2.56	2.95	0.35	86.39	89.14
Aralla 225	Villasimpliz Mb.	-0.83	5.85	2.31	-0.56	90.62	92.39

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
Aralla 201	Villasimpliz Mb.	79.64	-2.07	-4.99	-2.06
Aralla 202	Villasimpliz Mb.	79.93	-1.92	-3.76	-1.91
Aralla 203	Villasimpliz Mb.	79.89	2.28	1.57	2.31
Aralla 204	Villasimpliz Mb.	81.14	-0.01	-3.28	0.00
Aralla 205	Villasimpliz Mb.	79.89	-1.88	-3.64	-1.86
Aralla 206	Villasimpliz Mb.	79.92	-1.16	-3.35	-1.15
Aralla 207	Villasimpliz Mb.	79.99	-1.37	-2.59	-1.35
Aralla 208	Villasimpliz Mb.	77.84	-3.54	-4.54	-3.53
Aralla 209	Villasimpliz Mb.	80.95	-1.41	-2.62	-1.39
Aralla 210	Villasimpliz Mb.	80.51	-1.91	-3.34	-1.89
Aralla 211	Villasimpliz Mb.	79.41	-0.89	-3.27	-0.88
Aralla 212	Villasimpliz Mb.	76.98	-4.14	-4.54	-4.12
Aralla 213	Villasimpliz Mb.	79.18	-0.90	-1.56	-0.88
Aralla 214	Villasimpliz Mb.	78.04	-2.36	-2.15	-2.34
Aralla 215	Villasimpliz Mb.	77.00	0.96	2.04	0.99
Aralla 216	Villasimpliz Mb.	78.15	-2.54	-3.66	-2.53
Aralla 217	Villasimpliz Mb.	80.16	-0.30	-2.25	-0.28
Aralla 218	Villasimpliz Mb.	77.03	-4.32	-5.48	-4.31
Aralla 219	Villasimpliz Mb.	79.02	-1.88	-2.46	-1.87
Aralla 220	Villasimpliz Mb.	78.64	0.12	0.14	0.13
Aralla 221	Villasimpliz Mb.	75.70	-3.85	-4.41	-3.84
Aralla 222	Villasimpliz Mb.	79.41	-1.52	-2.49	-1.51
Aralla 223	Villasimpliz Mb.	78.86	-1.63	-1.74	-1.62
Aralla 224	Villasimpliz Mb.	74.18	-4.73	-5.62	-4.72
Aralla 225	Villasimpliz Mb.	77.74	-1.78	-3.61	-1.77

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
Aralla 201	Villasimpliz Mb.	-4.27	3.63	-40.65	0.60
Aralla 202	Villasimpliz Mb.	-2.90	3.76	-40.48	0.71
Aralla 203	Villasimpliz Mb.	3.53	4.88	-48.83	0.85
Aralla 204	Villasimpliz Mb.	-2.32	4.01	-42.68	0.73
Aralla 205	Villasimpliz Mb.	-2.63	4.09	-41.53	0.75
Aralla 206	Villasimpliz Mb.	-2.41	3.89	-43.01	0.73
Aralla 207	Villasimpliz Mb.	-1.38	4.14	-42.90	0.79
Aralla 208	Villasimpliz Mb.	-3.79	3.64	-39.88	0.67
Aralla 209	Villasimpliz Mb.	-1.44	4.08	-43.64	0.82
Aralla 210	Villasimpliz Mb.	-2.44	3.61	-41.75	0.75
Aralla 211	Villasimpliz Mb.	-2.29	4.01	-41.74	0.71
Aralla 212	Villasimpliz Mb.	-3.80	3.54	-38.30	0.65
Aralla 213	Villasimpliz Mb.	-0.38	3.84	-43.99	0.80
Aralla 214	Villasimpliz Mb.	-0.87	4.14	-43.08	0.80
Aralla 215	Villasimpliz Mb.	4.12	4.86	-49.36	0.82
Aralla 216	Villasimpliz Mb.	-2.77	3.66	-41.21	0.70
Aralla 217	Villasimpliz Mb.	-0.96	4.23	-44.99	0.78
Aralla 218	Villasimpliz Mb.	-4.87	3.60	-38.41	0.59
Aralla 219	Villasimpliz Mb.	-1.21	4.24	-43.45	0.80
Aralla 220	Villasimpliz Mb.	1.81	4.62	-46.23	0.84
Aralla 221	Villasimpliz Mb.	-3.62	3.79	-39.20	0.66
Aralla 222	Villasimpliz Mb.	-1.26	4.13	-44.24	0.79
Aralla 223	Villasimpliz Mb.	-0.42	4.30	-43.31	0.82
Aralla 224	Villasimpliz Mb.	-5.02	3.48	-38.21	0.53
Aralla 225	Villasimpliz Mb.	-2.68	3.78	-42.77	0.68

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
Aralla 201	Villasimpliz Mb.	10.45	0.98	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 202	Villasimpliz Mb.	7.28	0.72	1.00	4.00	1.00	< D.L.	6.00
Aralla 203	Villasimpliz Mb.	4.06	0.52	4.00	4.00	1.00	< D.L.	9.00
Aralla 204	Villasimpliz Mb.	9.98	0.65	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 205	Villasimpliz Mb.	8.07	0.68	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 206	Villasimpliz Mb.	10.54	0.65	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 207	Villasimpliz Mb.	5.56	0.63	1.00	4.00	1.00	< D.L.	6.00
Aralla 208	Villasimpliz Mb.	9.31	0.83	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 209	Villasimpliz Mb.	5.30	0.55	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 210	Villasimpliz Mb.	5.99	0.63	4.00	4.00	1.00	< D.L.	9.00
Aralla 211	Villasimpliz Mb.	9.19	0.72	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 212	Villasimpliz Mb.	6.46	0.91	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 213	Villasimpliz Mb.	5.20	0.57	4.00	4.00	1.00	< D.L.	9.00
Aralla 214	Villasimpliz Mb.	5.27	0.65	4.00	4.00	1.00	< D.L.	9.00
Aralla 215	Villasimpliz Mb.	4.67	0.63	4.00	4.00	1.00	< D.L.	9.00
Aralla 216	Villasimpliz Mb.	7.36	0.77	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 217	Villasimpliz Mb.	6.50	0.62	4.00	4.00	1.00	< D.L.	9.00
Aralla 218	Villasimpliz Mb.	13.25	1.04	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 219	Villasimpliz Mb.	6.23	0.62	1.00	4.00	1.00	< D.L.	6.00
Aralla 220	Villasimpliz Mb.	5.10	0.55	4.00	4.00	1.00	< D.L.	9.00
Aralla 221	Villasimpliz Mb.	10.97	0.88	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 222	Villasimpliz Mb.	6.35	0.62	1.00	4.00	1.00	< D.L.	6.00
Aralla 223	Villasimpliz Mb.	5.28	0.59	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 224	Villasimpliz Mb.	11.25	1.31	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 225	Villasimpliz Mb.	10.60	0.80	1.00	< D.L.	1.00	< D.L.	< D.L.

1.10 Aralla 226 - 241

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
Aralla 226	Villasimpliz Mb.	38.33	24.60	20.09	83.02	44.68
Aralla 227	Villasimpliz Mb.	< D.L.	14.72	13.91	28.62	28.62
Aralla 228	Villasimpliz Mb.	< D.L.	15.65	32.38	48.02	48.02
Aralla 229	Villasimpliz Mb.	40.27	24.62	31.02	95.92	55.64
Aralla 230	Villasimpliz Mb.	88.73	40.91	61.26	190.90	102.17
Aralla 231	Villasimpliz Mb.	57.94	24.16	43.65	125.74	67.81
Aralla 232	Villasimpliz Mb.	90.69	29.57	56.33	176.60	85.90
Aralla 233	Villasimpliz Mb.	76.42	29.41	54.43	160.27	83.84
Aralla 234	Villasimpliz Mb.	79.52	34.51	53.02	167.05	87.53
Aralla 235	Villasimpliz Mb.	< D.L.	12.89	14.68	27.56	27.56
Aralla 236	Villasimpliz Mb.	66.32	24.65	49.82	140.79	74.47
Aralla 237	Villasimpliz Mb.	72.79	29.67	55.64	158.09	85.30
Aralla 238	Villasimpliz Mb.	< D.L.	34.68	57.30	91.98	91.98
Aralla 239	Villasimpliz Mb.	< D.L.	10.34	9.14	19.48	19.48
Aralla 240	Villasimpliz Mb.	55.49	42.12	55.98	153.59	98.10
Aralla 241	Villasimpliz Mb.	< D.L.	37.96	52.38	90.34	90.34

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
Aralla 226	Villasimpliz Mb.	45.84	38.73	30.21	114.78	68.94
Aralla 227	Villasimpliz Mb.	< D.L.	23.17	20.92	44.09	44.09
Aralla 228	Villasimpliz Mb.	< D.L.	24.64	48.69	73.33	73.33
Aralla 229	Villasimpliz Mb.	48.16	38.77	46.65	133.58	85.42
Aralla 230	Villasimpliz Mb.	106.11	64.43	92.12	262.65	156.55
Aralla 231	Villasimpliz Mb.	69.28	38.04	65.64	172.96	103.68
Aralla 232	Villasimpliz Mb.	108.45	46.57	84.71	239.73	131.28
Aralla 233	Villasimpliz Mb.	91.39	46.32	81.85	219.56	128.17
Aralla 234	Villasimpliz Mb.	95.09	54.35	79.73	229.17	134.08
Aralla 235	Villasimpliz Mb.	< D.L.	20.29	22.07	42.36	42.36
Aralla 236	Villasimpliz Mb.	79.31	38.83	74.91	193.04	113.74
Aralla 237	Villasimpliz Mb.	87.04	46.72	83.66	217.42	130.38
Aralla 238	Villasimpliz Mb.	< D.L.	54.61	86.17	140.78	140.78
Aralla 239	Villasimpliz Mb.	< D.L.	16.28	13.74	30.02	30.02
Aralla 240	Villasimpliz Mb.	66.36	66.33	84.18	216.87	150.51
Aralla 241	Villasimpliz Mb.	< D.L.	59.79	78.76	138.55	138.55

Sample	Formation	U	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al2O3*5	10Al2O3
Aralla 226	Villasimpliz Mb.	5.73	57.30	114.60	2.50	1.23	1.65	11.28	3.73	42.95	85.91
Aralla 227	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-1.93	< D.L.	< D.L.	8.34	3.63	31.96	63.91
Aralla 228	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-2.05	< D.L.	< D.L.	18.92	5.09	73.76	147.51
Aralla 229	Villasimpliz Mb.	6.02	60.20	120.40	2.79	1.43	1.91	18.76	5.25	73.78	147.56
Aralla 230	Villasimpliz Mb.	13.26	132.63	265.27	7.89	4.56	6.11	35.75	6.64	140.59	281.18
Aralla 231	Villasimpliz Mb.	8.66	86.60	173.20	5.49	2.87	3.84	26.96	6.03	107.22	214.43
Aralla 232	Villasimpliz Mb.	13.56	135.57	271.13	9.68	4.65	6.23	37.15	6.42	150.54	301.07
Aralla 233	Villasimpliz Mb.	11.42	114.23	228.47	7.56	3.97	5.32	34.83	6.87	140.07	280.14
Aralla 234	Villasimpliz Mb.	11.89	118.87	237.73	7.36	4.12	5.53	34.23	6.22	137.92	275.83
Aralla 235	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-1.69	< D.L.	< D.L.	11.46	4.73	47.06	94.13
Aralla 236	Villasimpliz Mb.	9.91	99.13	198.27	6.68	3.40	4.56	32.12	6.77	129.31	258.63
Aralla 237	Villasimpliz Mb.	10.88	108.80	217.60	6.99	3.77	5.06	35.01	6.62	140.26	280.52
Aralla 238	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-4.55	< D.L.	< D.L.	36.70	6.44	147.70	295.41
Aralla 239	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-1.36	< D.L.	< D.L.	5.95	4.56	22.87	45.74
Aralla 240	Villasimpliz Mb.	8.30	82.95	165.90	2.77	2.70	3.62	35.28	6.17	141.40	282.81
Aralla 241	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-4.98	< D.L.	< D.L.	35.19	6.45	143.12	286.23

Sample	Formation	15Al2O3	Al2O3/10	K2O*5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	200TiO2	300TiO2	K2O/Al2O3
Aralla 226	Villasimpliz Mb.	128.86	0.86	9.44	< D.L.	< D.L.	14732.13	2.61	3.36	108.21	162.32	0.22
Aralla 227	Villasimpliz Mb.	95.87	0.64	6.54	< D.L.	< D.L.	16929.59	2.54	3.27	69.93	104.90	0.20
Aralla 228	Villasimpliz Mb.	221.27	1.48	15.21	< D.L.	< D.L.	16097.87	3.56	4.58	150.68	226.02	0.21
Aralla 229	Villasimpliz Mb.	221.34	1.48	14.58	< D.L.	9.92	10250.09	2.98	3.83	143.70	215.55	0.20
Aralla 230	Villasimpliz Mb.	421.77	2.81	28.79	< D.L.	16.29	-2175.10	3.50	4.51	242.77	364.15	0.20
Aralla 231	Villasimpliz Mb.	321.65	2.14	20.51	< D.L.	12.91	4774.74	3.31	4.26	191.90	287.85	0.19
Aralla 232	Villasimpliz Mb.	451.61	3.01	26.47	< D.L.	14.32	-4927.56	3.49	4.49	232.23	348.35	0.18
Aralla 233	Villasimpliz Mb.	420.20	2.80	25.58	< D.L.	13.36	1629.30	3.87	4.98	229.72	344.59	0.18
Aralla 234	Villasimpliz Mb.	413.75	2.76	24.92	< D.L.	15.31	-3729.84	3.28	4.22	239.34	359.01	0.18
Aralla 235	Villasimpliz Mb.	141.19	0.94	6.90	< D.L.	< D.L.	20618.35	3.31	4.25	112.24	168.36	0.15
Aralla 236	Villasimpliz Mb.	387.94	2.59	23.41	< D.L.	15.41	2345.23	3.66	4.70	216.84	325.26	0.18
Aralla 237	Villasimpliz Mb.	420.78	2.81	26.15	< D.L.	15.43	-1588.55	3.55	4.57	229.46	344.18	0.19
Aralla 238	Villasimpliz Mb.	443.11	2.95	26.93	< D.L.	14.60	-4235.23	3.49	4.48	234.41	351.61	0.18
Aralla 239	Villasimpliz Mb.	68.61	0.46	4.29	< D.L.	< D.L.	25826.91	3.19	4.10	66.89	100.33	0.19
Aralla 240	Villasimpliz Mb.	424.21	2.83	26.31	< D.L.	13.90	-3976.36	3.34	4.30	251.70	377.55	0.19
Aralla 241	Villasimpliz Mb.	429.35	2.86	24.61	< D.L.	16.51	-4325.87	3.35	4.32	234.59	351.89	0.17

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
Aralla 226	Villasimpliz Mb.	-0.66	< D.L.	0.57	0.96	0.43	2.35	-0.37	10.69
Aralla 227	Villasimpliz Mb.	-0.69	< D.L.	0.56	1.11	0.49	2.03	-0.31	9.94
Aralla 228	Villasimpliz Mb.	-0.69	< D.L.	0.71	0.67	0.37	2.71	-0.43	13.13
Aralla 229	Villasimpliz Mb.	-0.70	0.07	0.63	0.68	0.37	2.68	-0.43	13.56
Aralla 230	Villasimpliz Mb.	-0.69	0.06	0.70	0.30	0.33	3.07	-0.49	14.99
Aralla 231	Villasimpliz Mb.	-0.72	0.06	0.68	0.46	0.35	2.89	-0.46	15.13
Aralla 232	Villasimpliz Mb.	-0.75	0.05	0.70	0.27	0.33	3.03	-0.48	17.23
Aralla 233	Villasimpliz Mb.	-0.74	0.05	0.74	0.30	0.33	3.01	-0.48	16.50
Aralla 234	Villasimpliz Mb.	-0.74	0.06	0.67	0.32	0.33	3.00	-0.48	16.60
Aralla 235	Villasimpliz Mb.	-0.83	< D.L.	0.67	0.91	0.48	2.08	-0.32	14.19
Aralla 236	Villasimpliz Mb.	-0.74	0.06	0.72	0.37	0.34	2.97	-0.47	16.39
Aralla 237	Villasimpliz Mb.	-0.73	0.06	0.71	0.30	0.33	3.02	-0.48	16.22
Aralla 238	Villasimpliz Mb.	-0.74	0.05	0.70	0.25	0.33	3.04	-0.48	16.66
Aralla 239	Villasimpliz Mb.	-0.73	< D.L.	0.66	1.23	0.60	1.66	-0.22	8.81
Aralla 240	Villasimpliz Mb.	-0.73	0.05	0.68	0.27	0.33	3.03	-0.48	16.27
Aralla 241	Villasimpliz Mb.	-0.76	0.06	0.68	0.31	0.33	2.99	-0.48	17.40

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
Aralla 226	Villasimpliz Mb.	0.80	2.69	3.73	9.15	0.96	0.11	0.43	28.77	0.00
Aralla 227	Villasimpliz Mb.	0.64	1.95	3.63	12.92	1.11	0.08	0.57	32.54	0.00
Aralla 228	Villasimpliz Mb.	1.12	4.17	5.09	4.69	0.67	0.21	0.35	25.99	0.00
Aralla 229	Villasimpliz Mb.	1.09	4.00	5.25	4.83	0.68	0.21	0.29	28.62	0.00
Aralla 230	Villasimpliz Mb.	1.88	7.63	6.64	1.99	0.30	0.50	0.18	31.22	0.00
Aralla 231	Villasimpliz Mb.	1.42	5.52	6.03	2.85	0.46	0.35	0.22	28.86	0.00
Aralla 232	Villasimpliz Mb.	1.75	7.04	6.42	1.88	0.27	0.53	0.17	34.83	0.00
Aralla 233	Villasimpliz Mb.	1.70	6.81	6.87	1.99	0.30	0.50	0.20	32.95	0.00
Aralla 234	Villasimpliz Mb.	1.66	6.64	6.22	2.10	0.32	0.48	0.17	33.65	0.00
Aralla 235	Villasimpliz Mb.	0.66	2.04	4.73	8.13	0.91	0.12	0.50	30.05	0.00
Aralla 236	Villasimpliz Mb.	1.58	6.26	6.77	2.34	0.37	0.43	0.20	31.54	0.00
Aralla 237	Villasimpliz Mb.	1.73	6.96	6.62	2.00	0.30	0.50	0.18	34.51	0.00
Aralla 238	Villasimpliz Mb.	1.77	7.16	6.44	1.77	0.25	0.57	0.17	35.50	0.00
Aralla 239	Villasimpliz Mb.	0.52	1.38	4.56	16.94	1.23	0.06	1.00	31.30	0.00
Aralla 240	Villasimpliz Mb.	1.74	7.00	6.17	1.87	0.27	0.53	0.17	35.98	0.00
Aralla 241	Villasimpliz Mb.	1.64	6.57	6.45	2.02	0.31	0.50	0.17	34.74	0.00

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Ti Cal (ppm)	Zr/Sc	Cr/Th	Th/Sc
Aralla 226	Villasimpliz Mb.	15.88	0.08	464.03	< D.L.	51.10	0.55	0.34	1.11	< D.L.	3.59	3.23	3243.18	18.49	1.89	0.58
Aralla 227	Villasimpliz Mb.	18.28	0.11	648.34	< D.L.	45.11	0.76	0.35	0.94	< D.L.	< D.L.	1.93	2095.96	< D.L.	2.57	< D.L.
Aralla 228	Villasimpliz Mb.	19.58	0.07	398.83	< D.L.	92.29	0.64	0.53	0.99	< D.L.	< D.L.	2.05	4515.95	< D.L.	6.85	< D.L.
Aralla 229	Villasimpliz Mb.	20.54	0.06	360.44	< D.L.	83.13	0.48	0.49	1.06	< D.L.	5.32	3.23	4306.73	19.32	4.24	0.58
Aralla 230	Villasimpliz Mb.	23.16	0.05	303.66	0.59	165.70	0.39	0.54	0.96	< D.L.	< D.L.	5.37	7275.83	< D.L.	6.07	< D.L.
Aralla 231	Villasimpliz Mb.	22.35	0.06	331.30	< D.L.	134.00	0.53	0.60	1.01	< D.L.	< D.L.	3.17	5751.41	< D.L.	7.44	< D.L.
Aralla 232	Villasimpliz Mb.	25.93	0.06	350.03	0.74	199.82	0.53	0.62	0.88	< D.L.	< D.L.	3.88	6960.08	< D.L.	9.77	< D.L.
Aralla 233	Villasimpliz Mb.	24.39	0.06	335.51	0.60	145.22	0.34	0.51	1.02	< D.L.	< D.L.	3.86	6884.90	< D.L.	7.46	< D.L.
Aralla 234	Villasimpliz Mb.	23.05	0.05	319.85	0.82	159.97	0.40	0.60	0.90	< D.L.	< D.L.	4.53	7173.05	< D.L.	7.36	< D.L.
Aralla 235	Villasimpliz Mb.	16.77	0.07	407.69	< D.L.	55.11	0.62	0.44	1.43	< D.L.	< D.L.	1.69	3363.89	< D.L.	3.60	< D.L.
Aralla 236	Villasimpliz Mb.	23.85	0.06	344.76	0.47	136.70	0.45	0.51	0.94	< D.L.	5.91	3.24	6498.74	13.03	7.69	0.41
Aralla 237	Villasimpliz Mb.	24.45	0.06	336.45	0.48	184.09	0.50	0.56	0.94	< D.L.	< D.L.	3.89	6876.90	< D.L.	8.59	< D.L.
Aralla 238	Villasimpliz Mb.	25.20	0.06	350.14	0.54	180.69	0.44	0.56	0.88	< D.L.	8.65	4.55	7025.28	8.27	7.86	0.70
Aralla 239	Villasimpliz Mb.	13.68	0.11	642.75	< D.L.	29.45	0.99	< D.L.	1.11	< D.L.	< D.L.	1.36	2004.59	< D.L.	< D.L.	< D.L.
Aralla 240	Villasimpliz Mb.	22.47	0.05	323.73	0.60	182.84	0.38	0.63	0.88	< D.L.	8.62	5.53	7543.56	10.52	7.24	0.85
Aralla 241	Villasimpliz Mb.	24.40	0.05	318.31	0.70	188.92	0.64	0.57	0.84	< D.L.	< D.L.	4.98	7030.77	< D.L.	6.55	< D.L.

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
Aralla 226	Villasimpliz Mb.	5.72	0.18	0.10	44.41	16.99	-0.56	< D.L.	0.30	3.30
Aralla 227	Villasimpliz Mb.	4.54	0.22	0.09	59.68	12.96	-1.68	< D.L.	0.37	2.67
Aralla 228	Villasimpliz Mb.	3.60	0.28	0.06	25.12	6.74	3.34	< D.L.	0.54	1.85
Aralla 229	Villasimpliz Mb.	3.84	0.26	0.07	26.83	7.81	1.81	< D.L.	0.47	2.15
Aralla 230	Villasimpliz Mb.	1.88	0.53	0.05	14.11	3.45	3.22	< D.L.	0.57	1.77
Aralla 231	Villasimpliz Mb.	2.62	0.38	0.05	17.89	4.39	3.14	< D.L.	0.59	1.68
Aralla 232	Villasimpliz Mb.	1.07	0.93	0.03	9.92	1.73	4.06	< D.L.	0.71	1.42
Aralla 233	Villasimpliz Mb.	1.50	0.67	0.04	12.33	2.93	3.31	< D.L.	0.50	1.99
Aralla 234	Villasimpliz Mb.	1.61	0.62	0.04	12.07	2.71	2.91	< D.L.	0.66	1.51
Aralla 235	Villasimpliz Mb.	8.85	0.11	0.11	44.47	20.07	1.85	< D.L.	0.31	3.25
Aralla 236	Villasimpliz Mb.	2.07	0.48	0.05	16.22	4.09	3.10	< D.L.	0.54	1.86
Aralla 237	Villasimpliz Mb.	1.19	0.84	0.03	10.52	2.14	2.89	< D.L.	0.59	1.68
Aralla 238	Villasimpliz Mb.	0.84	1.19	0.02	7.99	1.49	2.80	0.77	0.64	1.56
Aralla 239	Villasimpliz Mb.	9.14	0.11	0.12	78.76	< D.L.	-1.37	< D.L.	< D.L.	< D.L.
Aralla 240	Villasimpliz Mb.	1.08	0.93	0.03	8.77	1.70	2.92	< D.L.	0.72	1.39
Aralla 241	Villasimpliz Mb.	1.43	0.70	0.03	11.10	2.51	2.74	< D.L.	0.68	1.46

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
Aralla 226	Villasimpliz Mb.	< D.L.	1.26	13.25	< D.L.	< D.L.	< D.L.	7.22	4.02
Aralla 227	Villasimpliz Mb.	< D.L.	< D.L.	11.76	< D.L.	< D.L.	< D.L.	8.93	4.40
Aralla 228	Villasimpliz Mb.	1.59	< D.L.	10.02	< D.L.	< D.L.	1.69	6.42	5.40
Aralla 229	Villasimpliz Mb.	1.11	0.77	11.29	< D.L.	< D.L.	2.54	5.39	5.26
Aralla 230	Villasimpliz Mb.	1.01	0.89	11.61	3.06	< D.L.	1.82	4.56	6.57
Aralla 231	Villasimpliz Mb.	1.05	0.76	10.51	< D.L.	< D.L.	1.95	5.57	6.24
Aralla 232	Villasimpliz Mb.	0.82	0.85	10.13	2.67	< D.L.	1.99	5.40	7.14
Aralla 233	Villasimpliz Mb.	1.12	0.77	11.57	2.73	< D.L.	1.63	3.97	5.83
Aralla 234	Villasimpliz Mb.	0.81	0.81	10.36	2.49	< D.L.	2.05	4.11	6.85
Aralla 235	Villasimpliz Mb.	2.96	< D.L.	11.91	< D.L.	< D.L.	3.07	7.39	3.67
Aralla 236	Villasimpliz Mb.	1.03	0.72	10.12	3.08	< D.L.	1.44	4.53	5.46
Aralla 237	Villasimpliz Mb.	0.98	0.73	11.37	3.27	< D.L.	1.58	5.64	6.76
Aralla 238	Villasimpliz Mb.	0.83	< D.L.	10.73	3.54	< D.L.	1.90	4.70	6.86
Aralla 239	Villasimpliz Mb.	8.34	< D.L.	12.31	< D.L.	< D.L.	5.50	12.17	< D.L.
Aralla 240	Villasimpliz Mb.	0.85	0.55	11.18	2.74	< D.L.	1.64	4.19	8.02
Aralla 241	Villasimpliz Mb.	0.78	< D.L.	9.44	2.50	< D.L.	1.75	6.01	6.46

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
Aralla 226	Villasimpliz Mb.	< D.L.	36.24	98.49	-6.67	68.27	0.65	67.31	< D.L.
Aralla 227	Villasimpliz Mb.	< D.L.	46.86	126.08	-21.16	57.04	0.57	86.16	< D.L.
Aralla 228	Villasimpliz Mb.	< D.L.	21.61	124.89	33.85	36.43	0.61	85.35	< D.L.
Aralla 229	Villasimpliz Mb.	< D.L.	21.93	81.15	19.36	41.05	0.68	55.46	< D.L.
Aralla 230	Villasimpliz Mb.	< D.L.	12.28	30.76	38.84	22.71	0.72	21.02	< D.L.
Aralla 231	Villasimpliz Mb.	< D.L.	15.47	38.57	32.72	27.37	0.65	26.35	< D.L.
Aralla 232	Villasimpliz Mb.	< D.L.	11.53	27.71	46.96	12.38	0.65	18.93	< D.L.
Aralla 233	Villasimpliz Mb.	< D.L.	12.09	38.56	37.59	17.06	0.74	26.35	< D.L.
Aralla 234	Villasimpliz Mb.	< D.L.	12.36	30.41	33.41	18.54	0.72	20.78	< D.L.
Aralla 235	Villasimpliz Mb.	< D.L.	32.12	87.18	15.40	73.66	0.62	59.58	< D.L.
Aralla 236	Villasimpliz Mb.	< D.L.	12.82	33.11	33.48	22.33	0.69	22.63	< D.L.
Aralla 237	Villasimpliz Mb.	< D.L.	12.14	30.55	35.08	14.48	0.67	20.88	< D.L.
Aralla 238	Villasimpliz Mb.	< D.L.	11.87	30.77	34.26	10.25	0.70	21.03	< D.L.
Aralla 239	Villasimpliz Mb.	< D.L.	64.98	181.22	-15.16	101.47	0.50	123.84	< D.L.
Aralla 240	Villasimpliz Mb.	< D.L.	12.22	29.62	36.97	13.65	0.73	20.24	< D.L.
Aralla 241	Villasimpliz Mb.	< D.L.	11.91	29.16	30.88	16.19	0.61	19.93	< D.L.

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
Aralla 226	Villasimpliz Mb.	1.69	0.59	2.21	54.17	< D.L.	1.98	0.30	< D.L.	0.00	< D.L.	< D.L.
Aralla 227	Villasimpliz Mb.	< D.L.	< D.L.	1.49	< D.L.	< D.L.	2.78	0.44	< D.L.	0.00	< D.L.	< D.L.
Aralla 228	Villasimpliz Mb.	< D.L.	< D.L.	2.15	< D.L.	< D.L.	1.67	0.22	1.24	0.00	< D.L.	< D.L.
Aralla 229	Villasimpliz Mb.	1.61	0.62	2.36	53.25	< D.L.	1.46	0.16	0.87	0.00	< D.L.	< D.L.
Aralla 230	Villasimpliz Mb.	1.21	0.82	2.83	25.48	< D.L.	0.87	-0.06	1.50	0.01	< D.L.	< D.L.
Aralla 231	Villasimpliz Mb.	1.10	0.91	2.44	35.87	< D.L.	1.16	0.06	1.19	0.01	< D.L.	< D.L.
Aralla 232	Villasimpliz Mb.	0.86	1.16	2.08	14.56	< D.L.	0.94	-0.03	1.31	0.01	< D.L.	< D.L.
Aralla 233	Villasimpliz Mb.	1.01	0.99	2.35	22.15	< D.L.	1.08	0.03	1.66	0.01	< D.L.	< D.L.
Aralla 234	Villasimpliz Mb.	1.14	0.87	2.43	22.77	< D.L.	0.94	-0.03	1.18	0.01	< D.L.	< D.L.
Aralla 235	Villasimpliz Mb.	< D.L.	< D.L.	2.55	< D.L.	< D.L.	3.43	0.54	1.47	0.00	< D.L.	< D.L.
Aralla 236	Villasimpliz Mb.	0.98	1.02	2.58	30.83	< D.L.	1.12	0.05	1.41	0.01	< D.L.	< D.L.
Aralla 237	Villasimpliz Mb.	1.07	0.93	2.19	19.76	< D.L.	0.97	-0.01	1.45	0.01	< D.L.	< D.L.
Aralla 238	Villasimpliz Mb.	< D.L.	< D.L.	1.89	< D.L.	< D.L.	0.93	-0.03	1.29	0.01	< D.L.	< D.L.
Aralla 239	Villasimpliz Mb.	< D.L.	< D.L.	1.73	< D.L.	< D.L.	5.31	0.72	2.02	< D.L.	< D.L.	< D.L.
Aralla 240	Villasimpliz Mb.	2.00	0.50	2.15	24.63	< D.L.	0.91	-0.04	1.27	0.01	< D.L.	< D.L.
Aralla 241	Villasimpliz Mb.	< D.L.	< D.L.	2.31	< D.L.	< D.L.	0.97	-0.01	1.19	0.01	< D.L.	< D.L.

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	V (wt%)	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
Aralla 226	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	2.50	0.01	3.26	31.04	412992.13	328.30	-1.94
Aralla 227	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-1.93	0.00	2.11	19.29	419786.56	302.20	0.38
Aralla 228	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-2.05	0.01	4.56	28.44	401361.96	633.07	-6.15
Aralla 229	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	2.79	0.01	4.35	32.06	411570.59	619.12	-7.94
Aralla 230	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	7.89	0.02	7.37	33.80	410127.29	948.83	-21.78
Aralla 231	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	5.49	0.01	5.82	31.07	399285.47	853.68	-14.64
Aralla 232	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	9.68	0.02	7.07	19.73	423715.38	1176.83	-24.11
Aralla 233	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	7.56	0.02	6.97	25.30	408182.62	830.43	-20.53
Aralla 234	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	7.36	0.02	7.27	27.06	416274.17	899.13	-21.85
Aralla 235	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-1.69	0.01	3.38	36.69	407369.57	521.37	-0.76
Aralla 236	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	6.68	0.01	6.57	30.57	419181.92	817.10	-18.70
Aralla 237	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	6.99	0.02	6.98	21.50	410111.77	1071.83	-21.55
Aralla 238	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-4.55	0.02	7.13	16.03	400224.90	1985.60	-23.47
Aralla 239	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-1.36	0.00	2.00	24.56	386399.60	427.57	4.47
Aralla 240	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	2.77	0.02	7.66	20.43	397482.85	873.23	-22.45
Aralla 241	Villasimpliz Mb.	< D.L.	< D.L.	< D.L.	-4.98	0.01	7.13	24.52	421612.96	1176.03	-22.81

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
Aralla 226	Villasimpliz Mb.	-0.91	4.64	1.58	-1.34	89.29	91.44
Aralla 227	Villasimpliz Mb.	0.18	3.45	2.03	0.08	88.77	90.86
Aralla 228	Villasimpliz Mb.	-2.87	7.97	1.40	1.96	91.24	92.92
Aralla 229	Villasimpliz Mb.	-3.71	7.97	0.57	1.18	91.58	93.13
Aralla 230	Villasimpliz Mb.	-10.18	15.18	-2.02	0.83	92.26	93.75
Aralla 231	Villasimpliz Mb.	-6.84	11.58	-0.62	0.92	92.44	93.80
Aralla 232	Villasimpliz Mb.	-11.27	16.26	-2.54	0.82	93.42	94.51
Aralla 233	Villasimpliz Mb.	-9.60	15.13	-1.47	0.87	93.10	94.28
Aralla 234	Villasimpliz Mb.	-10.21	14.89	-2.21	0.82	93.15	94.32
Aralla 235	Villasimpliz Mb.	-0.35	5.08	2.38	-0.18	92.37	93.42
Aralla 236	Villasimpliz Mb.	-8.74	13.97	-1.24	0.88	93.07	94.25
Aralla 237	Villasimpliz Mb.	-10.07	15.15	-1.93	0.84	92.96	94.19
Aralla 238	Villasimpliz Mb.	-10.97	15.95	-2.40	0.82	93.16	94.34
Aralla 239	Villasimpliz Mb.	2.09	2.47	3.41	0.38	87.74	89.81
Aralla 240	Villasimpliz Mb.	-10.49	15.27	-2.29	0.82	92.98	94.21
Aralla 241	Villasimpliz Mb.	-10.66	15.46	-2.36	0.82	93.51	94.57

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
Aralla 226	Villasimpliz Mb.	76.14	-3.89	-3.91	-3.88
Aralla 227	Villasimpliz Mb.	76.62	-4.34	-5.02	-4.33
Aralla 228	Villasimpliz Mb.	77.97	-0.74	-1.94	-0.72
Aralla 229	Villasimpliz Mb.	78.66	-2.66	-3.08	-2.65
Aralla 230	Villasimpliz Mb.	78.65	1.12	1.56	1.14
Aralla 231	Villasimpliz Mb.	79.53	-0.39	-1.13	-0.37
Aralla 232	Villasimpliz Mb.	81.05	3.20	1.18	3.23
Aralla 233	Villasimpliz Mb.	80.44	2.70	0.73	2.73
Aralla 234	Villasimpliz Mb.	80.59	1.56	0.51	1.59
Aralla 235	Villasimpliz Mb.	82.17	-2.12	-4.88	-2.11
Aralla 236	Villasimpliz Mb.	80.51	1.44	-0.28	1.46
Aralla 237	Villasimpliz Mb.	80.12	1.95	0.79	1.98
Aralla 238	Villasimpliz Mb.	80.49	2.69	1.26	2.72
Aralla 239	Villasimpliz Mb.	76.85	-4.23	-6.08	-4.22
Aralla 240	Villasimpliz Mb.	80.16	1.86	1.15	1.89
Aralla 241	Villasimpliz Mb.	81.34	2.21	0.31	2.23

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
Aralla 226	Villasimpliz Mb.	-3.07	3.58	-40.17	0.69
Aralla 227	Villasimpliz Mb.	-4.35	3.49	-39.77	0.63
Aralla 228	Villasimpliz Mb.	-0.77	3.72	-43.71	0.74
Aralla 229	Villasimpliz Mb.	-1.94	3.98	-42.03	0.77
Aralla 230	Villasimpliz Mb.	3.51	4.87	-47.90	0.85
Aralla 231	Villasimpliz Mb.	0.35	4.53	-43.77	0.82
Aralla 232	Villasimpliz Mb.	3.01	4.81	-48.60	0.86
Aralla 233	Villasimpliz Mb.	2.50	4.71	-47.91	0.83
Aralla 234	Villasimpliz Mb.	2.24	4.68	-46.46	0.85
Aralla 235	Villasimpliz Mb.	-4.19	3.50	-40.71	0.66
Aralla 236	Villasimpliz Mb.	1.37	4.57	-47.37	0.83
Aralla 237	Villasimpliz Mb.	2.59	4.82	-47.26	0.85
Aralla 238	Villasimpliz Mb.	3.11	4.99	-46.56	0.85
Aralla 239	Villasimpliz Mb.	-5.54	3.57	-37.72	0.50
Aralla 240	Villasimpliz Mb.	2.96	4.86	-45.51	0.85
Aralla 241	Villasimpliz Mb.	2.03	4.71	-47.04	0.86

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
Aralla 226	Villasimpliz Mb.	6.90	0.82	1.00	4.00	1.00	< D.L.	6.00
Aralla 227	Villasimpliz Mb.	10.38	0.94	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 228	Villasimpliz Mb.	6.76	0.69	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 229	Villasimpliz Mb.	5.92	0.68	4.00	4.00	1.00	< D.L.	9.00
Aralla 230	Villasimpliz Mb.	4.13	0.55	4.00	4.00	1.00	< D.L.	9.00
Aralla 231	Villasimpliz Mb.	4.94	0.59	4.00	4.00	1.00	< D.L.	9.00
Aralla 232	Villasimpliz Mb.	4.30	0.49	4.00	4.00	1.00	< D.L.	9.00
Aralla 233	Villasimpliz Mb.	4.82	0.53	4.00	4.00	1.00	< D.L.	9.00
Aralla 234	Villasimpliz Mb.	3.91	0.51	4.00	4.00	1.00	< D.L.	9.00
Aralla 235	Villasimpliz Mb.	8.43	0.78	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 236	Villasimpliz Mb.	4.82	0.55	4.00	4.00	1.00	< D.L.	9.00
Aralla 237	Villasimpliz Mb.	4.43	0.53	4.00	4.00	1.00	< D.L.	9.00
Aralla 238	Villasimpliz Mb.	4.25	0.50	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 239	Villasimpliz Mb.	13.63	1.38	1.00	< D.L.	1.00	< D.L.	< D.L.
Aralla 240	Villasimpliz Mb.	3.80	0.51	4.00	4.00	1.00	< D.L.	9.00
Aralla 241	Villasimpliz Mb.	4.09	0.50	1.00	< D.L.	1.00	< D.L.	< D.L.

2. Geochemical ratios and proxies – Caldas de Luna section

2.1 Caldas 1 - 25

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
Caldas 1	Bernesga Mb.	82.82	49.42	56.88	189.12	106.30
Caldas 2	Bernesga Mb.	75.75	41.99	48.06	165.81	90.05
Caldas 3	Bernesga Mb.	96.83	49.89	50.98	197.70	100.87
Caldas 4	Bernesga Mb.	72.42	16.13	46.84	135.39	62.97
Caldas 5	Bernesga Mb.	103.36	48.37	48.05	199.78	96.42
Caldas 6	Bernesga Mb.	106.59	51.38	46.79	204.77	98.18
Caldas 7	Bernesga Mb.	127.24	49.46	43.87	220.57	93.33
Caldas 8	Bernesga Mb.	132.19	52.75	46.44	231.38	99.19
Caldas 9	Bernesga Mb.	124.60	100.22	23.03	247.85	123.24
Caldas 10	Bernesga Mb.	74.59	53.48	43.27	171.34	96.75
Caldas 11	Bernesga Mb.	79.83	45.20	46.75	171.79	91.95
Caldas 12	Bernesga Mb.	92.05	< D.L.	42.10	134.16	42.10
Caldas 13	Bernesga Mb.	74.19	< D.L.	42.73	116.92	42.73
Caldas 14	Bernesga Mb.	< D.L.	< D.L.	42.57	42.57	42.57
Caldas 15	Bernesga Mb.	< D.L.	< D.L.	37.02	37.02	37.02
Caldas 16	Bernesga Mb.	78.67	< D.L.	42.07	120.74	42.07
Caldas 17	Bernesga Mb.	< D.L.	< D.L.	33.56	33.56	33.56
Caldas 18	Bernesga Mb.	77.54	< D.L.	46.27	123.81	46.27
Caldas 19	Bernesga Mb.	105.64	53.15	47.13	205.92	100.29
Caldas 20	Bernesga Mb.	103.81	36.05	46.29	186.15	82.34
Caldas 21	Bernesga Mb.	100.73	50.56	48.16	199.45	98.72
Caldas 22	Bernesga Mb.	108.91	58.78	49.75	217.44	108.52
Caldas 23	Bernesga Mb.	62.84	14.48	42.70	120.02	57.17
Caldas 24	Bernesga Mb.	80.37	19.12	43.61	143.10	62.73
Caldas 25	Bernesga Mb.	78.32	25.46	47.97	151.75	73.43

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
Caldas 1	Bernesga Mb.	99.04	77.83	85.53	262.39	163.35
Caldas 2	Bernesga Mb.	90.59	66.13	72.27	228.99	138.40
Caldas 3	Bernesga Mb.	115.79	78.57	76.66	271.02	155.23
Caldas 4	Bernesga Mb.	86.60	25.40	70.44	182.44	95.84
Caldas 5	Bernesga Mb.	123.60	76.17	72.25	272.03	148.43
Caldas 6	Bernesga Mb.	127.47	80.92	70.37	278.75	151.29
Caldas 7	Bernesga Mb.	152.16	77.89	65.96	296.02	143.86
Caldas 8	Bernesga Mb.	158.08	83.07	69.84	310.98	152.90
Caldas 9	Bernesga Mb.	149.00	157.82	34.63	341.45	192.45
Caldas 10	Bernesga Mb.	89.20	84.21	65.07	238.49	149.29
Caldas 11	Bernesga Mb.	95.47	71.19	70.30	236.95	141.49
Caldas 12	Bernesga Mb.	110.08	< D.L.	63.31	173.39	63.31
Caldas 13	Bernesga Mb.	88.72	< D.L.	64.25	152.97	64.25
Caldas 14	Bernesga Mb.	< D.L.	< D.L.	64.01	64.01	64.01
Caldas 15	Bernesga Mb.	< D.L.	< D.L.	55.67	55.67	55.67
Caldas 16	Bernesga Mb.	94.08	< D.L.	63.26	157.34	63.26
Caldas 17	Bernesga Mb.	< D.L.	< D.L.	50.46	50.46	50.46
Caldas 18	Bernesga Mb.	92.72	< D.L.	69.58	162.30	69.58
Caldas 19	Bernesga Mb.	126.32	83.71	70.88	280.91	154.59
Caldas 20	Bernesga Mb.	124.13	56.77	69.61	250.52	126.38
Caldas 21	Bernesga Mb.	120.45	79.63	72.42	272.50	152.04
Caldas 22	Bernesga Mb.	130.24	92.56	74.81	297.61	167.37
Caldas 23	Bernesga Mb.	75.15	22.80	64.20	162.15	87.00
Caldas 24	Bernesga Mb.	96.11	30.11	65.58	191.79	95.69
Caldas 25	Bernesga Mb.	93.65	40.09	72.14	205.89	112.23

Sample	Formation	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al Calibrated	Al2O3*5	10Al2O3
Caldas 1	Bernesga Mb.	123.80	247.60	5.89	4.29	5.74	35.61	5.02	150847.24	142.51	285.02
Caldas 2	Bernesga Mb.	113.23	226.47	5.81	3.93	5.27	34.63	5.75	151282.28	142.92	285.84
Caldas 3	Bernesga Mb.	144.73	289.47	7.93	4.90	6.57	34.77	5.15	150168.31	141.87	283.74
Caldas 4	Bernesga Mb.	108.25	216.50	8.71	3.75	5.03	36.96	10.52	164394.69	155.31	310.62
Caldas 5	Bernesga Mb.	154.50	309.00	9.10	5.16	6.92	35.14	5.31	153961.23	145.45	290.90
Caldas 6	Bernesga Mb.	159.33	318.67	9.19	5.29	7.08	36.30	5.46	160930.60	152.04	304.07
Caldas 7	Bernesga Mb.	190.20	380.40	12.53	5.99	8.02	34.73	5.56	154469.67	145.93	291.86
Caldas 8	Bernesga Mb.	197.60	395.20	12.84	6.14	8.23	33.60	4.86	146839.90	138.72	277.45
Caldas 9	Bernesga Mb.	186.25	372.50	5.47	5.90	7.91	29.03	58.38	137534.35	129.93	259.87
Caldas 10	Bernesga Mb.	111.50	223.00	4.13	3.87	5.19	30.78	4.61	133916.51	126.52	253.03
Caldas 11	Bernesga Mb.	119.33	238.67	6.00	4.14	5.55	33.14	4.76	144217.69	136.25	272.49
Caldas 12	Bernesga Mb.	137.60	275.20	13.76	4.70	6.30	34.93	22.35	156652.64	147.99	295.99
Caldas 13	Bernesga Mb.	110.90	221.80	11.09	3.85	5.16	35.05	12.01	156894.26	148.22	296.45
Caldas 14	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	34.01	22.85	151479.17	143.11	286.21
Caldas 15	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	31.83	31.81	143444.53	135.52	271.03
Caldas 16	Bernesga Mb.	117.60	235.20	11.76	4.08	5.47	32.88	19.99	145814.29	137.76	275.51
Caldas 17	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	30.67	37.50	139525.66	131.81	263.63
Caldas 18	Bernesga Mb.	115.90	231.80	11.59	4.02	5.39	38.79	13.26	174398.69	164.76	329.52
Caldas 19	Bernesga Mb.	157.90	315.80	8.81	5.25	7.04	35.70	4.84	157534.94	148.83	297.66
Caldas 20	Bernesga Mb.	155.17	310.33	10.79	5.18	6.94	34.07	6.23	149450.08	141.19	282.38
Caldas 21	Bernesga Mb.	150.57	301.13	8.42	5.06	6.78	32.23	5.07	138511.27	130.86	261.71
Caldas 22	Bernesga Mb.	162.80	325.60	8.57	5.37	7.20	33.53	4.89	144378.27	136.40	272.80
Caldas 23	Bernesga Mb.	93.93	187.87	7.49	3.19	4.28	33.78	9.51	150195.18	141.89	283.79
Caldas 24	Bernesga Mb.	120.13	240.27	9.50	4.17	5.58	32.60	8.33	143347.67	135.43	270.85
Caldas 25	Bernesga Mb.	117.07	234.13	8.37	4.06	5.45	35.37	8.18	155229.54	146.65	293.30

Sample	Formation	15Al2O3	Al2O3/10	K2O *5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	200TiO2	300TiO2	K2O/Al2O3
Caldas 1	Bernesga Mb.	427.53	2.85	26.73	< D.L.	11.41	-10600.49	2.71	3.49	231.69	347.54	0.19
Caldas 2	Bernesga Mb.	428.76	2.86	22.58	< D.L.	11.82	-5865.84	3.20	4.11	252.37	378.56	0.16
Caldas 3	Bernesga Mb.	425.61	2.84	23.96	< D.L.	10.60	-8901.91	2.86	3.68	238.55	357.83	0.17
Caldas 4	Bernesga Mb.	465.93	3.11	22.01	0.42	11.09	24739.28	6.58	8.47	229.68	344.52	0.14
Caldas 5	Bernesga Mb.	436.36	2.91	22.58	< D.L.	12.48	-10103.37	2.84	3.65	250.94	376.41	0.16
Caldas 6	Bernesga Mb.	456.11	3.04	21.99	< D.L.	11.84	-10336.41	2.99	3.85	245.02	367.53	0.14
Caldas 7	Bernesga Mb.	437.80	2.92	20.61	< D.L.	12.51	-8462.45	3.02	3.88	258.65	387.97	0.14
Caldas 8	Bernesga Mb.	416.17	2.77	21.82	0.36	11.40	-10683.99	2.60	3.35	247.84	371.76	0.16
Caldas 9	Bernesga Mb.	389.80	2.60	10.82	0.70	< D.L.	373927.71	40.83	52.53	132.12	198.18	0.08
Caldas 10	Bernesga Mb.	379.55	2.53	20.34	0.37	9.58	-7931.72	2.55	3.29	238.04	357.05	0.16
Caldas 11	Bernesga Mb.	408.74	2.72	21.97	0.40	11.12	-10516.95	2.55	3.29	240.81	361.21	0.16
Caldas 12	Bernesga Mb.	443.98	2.96	19.78	0.51	11.17	109337.25	14.85	19.10	194.45	291.68	0.13
Caldas 13	Bernesga Mb.	444.67	2.96	20.08	0.52	10.31	37582.36	7.68	9.88	222.43	333.65	0.14
Caldas 14	Bernesga Mb.	429.32	2.86	20.00	0.60	10.99	114255.81	15.21	19.57	195.21	292.81	0.14
Caldas 15	Bernesga Mb.	406.55	2.71	17.40	0.64	< D.L.	186648.32	22.25	28.63	163.75	245.63	0.13
Caldas 16	Bernesga Mb.	413.27	2.76	19.77	0.56	10.80	95831.75	13.23	17.02	196.60	294.91	0.14
Caldas 17	Bernesga Mb.	395.44	2.64	15.77	0.69	< D.L.	227410.63	26.23	33.74	158.77	238.15	0.12
Caldas 18	Bernesga Mb.	494.28	3.30	21.74	0.47	12.67	40248.05	8.38	10.79	216.53	324.80	0.13
Caldas 19	Bernesga Mb.	446.48	2.98	22.15	< D.L.	12.25	-14125.35	2.53	3.25	223.82	335.73	0.15
Caldas 20	Bernesga Mb.	423.57	2.82	21.75	< D.L.	10.24	-930.41	3.64	4.69	233.87	350.81	0.15
Caldas 21	Bernesga Mb.	392.57	2.62	22.63	0.39	10.40	-6441.99	2.82	3.63	241.73	362.60	0.17
Caldas 22	Bernesga Mb.	409.20	2.73	23.38	< D.L.	11.77	-10098.14	2.60	3.34	233.96	350.93	0.17
Caldas 23	Bernesga Mb.	425.68	2.84	20.06	0.49	11.30	21056.96	5.86	7.54	222.92	334.37	0.14
Caldas 24	Bernesga Mb.	406.28	2.71	20.49	0.47	10.01	15448.19	5.13	6.60	222.60	333.90	0.15
Caldas 25	Bernesga Mb.	439.95	2.93	22.54	0.41	13.04	9303.28	4.81	6.19	226.50	339.75	0.15

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
Caldas 1	Bernesga Mb.	-0.73	0.04	0.59	0.28	0.33	3.03	-0.48	16.18
Caldas 2	Bernesga Mb.	-0.80	0.04	0.66	0.27	0.34	2.95	-0.47	18.66
Caldas 3	Bernesga Mb.	-0.77	0.04	0.61	0.27	0.34	2.98	-0.47	17.64
Caldas 4	Bernesga Mb.	-0.85	0.04	0.97	0.22	0.34	2.93	-0.47	18.15
Caldas 5	Bernesga Mb.	-0.81	0.04	0.61	0.27	0.34	2.95	-0.47	18.99
Caldas 6	Bernesga Mb.	-0.84	0.04	0.63	0.26	0.34	2.93	-0.47	20.28
Caldas 7	Bernesga Mb.	-0.85	0.04	0.63	0.27	0.35	2.90	-0.46	20.51
Caldas 8	Bernesga Mb.	-0.80	0.04	0.57	0.30	0.34	2.93	-0.47	16.63
Caldas 9	Bernesga Mb.	-1.08	< D.L.	1.77	0.08	0.41	2.46	-0.39	21.09
Caldas 10	Bernesga Mb.	-0.79	0.04	0.56	0.31	0.35	2.89	-0.46	15.90
Caldas 11	Bernesga Mb.	-0.79	0.04	0.56	0.30	0.34	2.93	-0.47	16.03
Caldas 12	Bernesga Mb.	-0.87	0.04	1.33	0.17	0.35	2.87	-0.46	18.12
Caldas 13	Bernesga Mb.	-0.87	0.03	1.04	0.22	0.35	2.88	-0.46	17.90
Caldas 14	Bernesga Mb.	-0.85	0.04	1.34	0.17	0.35	2.88	-0.46	16.92
Caldas 15	Bernesga Mb.	-0.89	< D.L.	1.50	0.16	0.36	2.80	-0.45	17.35
Caldas 16	Bernesga Mb.	-0.84	0.04	1.28	0.19	0.35	2.87	-0.46	16.65
Caldas 17	Bernesga Mb.	-0.92	< D.L.	1.57	0.13	0.37	2.73	-0.44	17.61
Caldas 18	Bernesga Mb.	-0.88	0.04	1.08	0.19	0.34	2.93	-0.47	19.14
Caldas 19	Bernesga Mb.	-0.83	0.04	0.56	0.27	0.34	2.94	-0.47	19.74
Caldas 20	Bernesga Mb.	-0.81	0.04	0.72	0.27	0.34	2.93	-0.47	19.00
Caldas 21	Bernesga Mb.	-0.76	0.04	0.61	0.30	0.34	2.95	-0.47	15.15
Caldas 22	Bernesga Mb.	-0.77	0.04	0.57	0.30	0.34	2.97	-0.47	17.31
Caldas 23	Bernesga Mb.	-0.85	0.04	0.92	0.24	0.35	2.88	-0.46	17.31
Caldas 24	Bernesga Mb.	-0.82	0.04	0.87	0.26	0.35	2.89	-0.46	16.39
Caldas 25	Bernesga Mb.	-0.81	0.04	0.84	0.25	0.34	2.95	-0.47	16.89

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
Caldas 1	Bernesga Mb.	1.76	7.11	5.02	1.91	0.28	0.52	0.14	35.51	0.00
Caldas 2	Bernesga Mb.	1.53	6.05	5.75	1.85	0.27	0.54	0.16	36.94	0.00
Caldas 3	Bernesga Mb.	1.61	6.40	5.15	1.87	0.27	0.54	0.14	37.97	0.00
Caldas 4	Bernesga Mb.	1.71	6.11	10.52	1.66	0.22	0.60	0.30	32.66	0.00
Caldas 5	Bernesga Mb.	1.53	6.05	5.31	1.87	0.27	0.54	0.14	38.17	0.00
Caldas 6	Bernesga Mb.	1.50	5.90	5.46	1.83	0.26	0.55	0.14	38.69	0.00
Caldas 7	Bernesga Mb.	1.42	5.55	5.56	1.86	0.27	0.54	0.15	40.52	0.00
Caldas 8	Bernesga Mb.	1.67	6.03	4.86	1.98	0.30	0.51	0.13	42.67	0.01
Caldas 9	Bernesga Mb.	1.23	3.40	58.38	1.19	0.08	0.84	2.25	32.62	0.00
Caldas 10	Bernesga Mb.	1.59	5.66	4.61	2.06	0.31	0.48	0.14	42.75	0.01
Caldas 11	Bernesga Mb.	1.70	6.09	4.76	1.98	0.30	0.51	0.13	40.94	0.00
Caldas 12	Bernesga Mb.	1.63	5.59	22.35	1.48	0.17	0.67	0.72	27.92	0.00
Caldas 13	Bernesga Mb.	1.66	5.67	12.01	1.66	0.22	0.60	0.37	33.96	0.00
Caldas 14	Bernesga Mb.	1.69	5.69	22.85	1.49	0.17	0.67	0.76	28.59	0.00
Caldas 15	Bernesga Mb.	1.56	5.04	31.81	1.43	0.16	0.70	1.17	26.31	0.00
Caldas 16	Bernesga Mb.	1.65	5.61	19.99	1.56	0.19	0.64	0.69	29.48	0.00
Caldas 17	Bernesga Mb.	1.50	4.65	37.50	1.36	0.13	0.74	1.42	27.30	0.00
Caldas 18	Bernesga Mb.	1.72	6.07	13.26	1.53	0.19	0.65	0.36	31.54	0.00
Caldas 19	Bernesga Mb.	1.51	5.94	4.84	1.86	0.27	0.54	0.12	41.71	0.01
Caldas 20	Bernesga Mb.	1.49	5.84	6.23	1.85	0.27	0.54	0.18	38.57	0.00
Caldas 21	Bernesga Mb.	1.73	6.25	5.07	2.01	0.30	0.50	0.15	39.15	0.00
Caldas 22	Bernesga Mb.	1.58	6.25	4.89	1.98	0.30	0.51	0.14	39.74	0.00
Caldas 23	Bernesga Mb.	1.64	5.65	9.51	1.73	0.24	0.58	0.30	36.45	0.00
Caldas 24	Bernesga Mb.	1.65	5.75	8.33	1.83	0.26	0.55	0.27	36.52	0.00
Caldas 25	Bernesga Mb.	1.74	6.25	8.18	1.76	0.25	0.57	0.23	36.56	0.00

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Zr/Sc	Cr/Th	Th/Sc
Caldas 1	Bernesga Mb.	24.60	0.05	324.08	< D.L.	216.51	0.35	0.71	1.22	< D.L.	< D.L.	6.49	< D.L.	6.95	< D.L.
Caldas 2	Bernesga Mb.	22.65	0.06	333.59	< D.L.	256.87	0.43	0.85	1.62	< D.L.	< D.L.	5.51	< D.L.	8.55	< D.L.
Caldas 3	Bernesga Mb.	23.79	0.05	323.45	< D.L.	229.00	0.38	0.76	1.32	60.96	< D.L.	6.55	< D.L.	6.99	< D.L.
Caldas 4	Bernesga Mb.	27.05	0.05	327.28	< D.L.	247.82	0.35	0.87	2.42	< D.L.	< D.L.	2.12	< D.L.	19.78	< D.L.
Caldas 5	Bernesga Mb.	23.19	0.05	312.14	< D.L.	183.74	0.20	0.77	1.47	< D.L.	< D.L.	6.35	< D.L.	7.01	< D.L.
Caldas 6	Bernesga Mb.	24.82	0.05	307.50	< D.L.	207.68	0.17	0.86	2.09	92.13	16.35	6.74	7.21	7.23	0.93
Caldas 7	Bernesga Mb.	22.57	0.05	326.17	< D.L.	244.18	0.19	0.90	3.02	68.45	< D.L.	6.49	< D.L.	7.75	< D.L.
Caldas 8	Bernesga Mb.	22.39	0.05	290.42	< D.L.	210.44	0.12	0.78	2.87	106.73	26.05	6.92	7.78	7.02	1.01
Caldas 9	Bernesga Mb.	39.34	0.08	463.96	3.12	293.41	0.80	0.79	4.20	41.17	< D.L.	13.15	< D.L.	1.42	< D.L.
Caldas 10	Bernesga Mb.	21.26	0.05	289.85	< D.L.	200.86	0.10	0.87	2.75	97.53	< D.L.	7.02	< D.L.	7.19	< D.L.
Caldas 11	Bernesga Mb.	22.63	0.05	300.09	< D.L.	179.60	0.15	0.77	1.54	< D.L.	< D.L.	5.93	< D.L.	7.79	< D.L.
Caldas 12	Bernesga Mb.	30.44	0.05	327.49	2.67	251.06	0.78	0.98	1.66	33.13	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 13	Bernesga Mb.	26.65	0.06	336.87	< D.L.	233.50	0.39	0.89	2.09	58.32	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 14	Bernesga Mb.	29.32	0.06	360.61	2.85	231.11	0.76	0.73	1.69	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 15	Bernesga Mb.	33.10	0.06	387.01	4.05	220.23	0.66	0.80	2.42	35.98	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 16	Bernesga Mb.	28.03	0.06	358.95	< D.L.	222.22	0.62	0.78	1.81	32.89	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 17	Bernesga Mb.	33.21	0.06	358.58	3.56	276.29	1.02	1.03	2.14	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 18	Bernesga Mb.	30.44	0.05	322.07	< D.L.	185.94	0.36	0.74	1.74	47.69	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 19	Bernesga Mb.	26.60	0.05	310.46	< D.L.	213.15	0.30	0.75	1.35	< D.L.	11.56	6.98	6.39	6.59	0.97
Caldas 20	Bernesga Mb.	24.15	0.05	311.20	< D.L.	216.90	0.32	0.73	1.74	< D.L.	< D.L.	4.73	< D.L.	8.67	< D.L.
Caldas 21	Bernesga Mb.	21.65	0.05	298.64	< D.L.	198.73	0.21	0.76	1.74	< D.L.	12.01	6.64	6.05	6.72	0.78
Caldas 22	Bernesga Mb.	23.32	0.05	307.99	< D.L.	194.49	0.18	0.75	1.62	< D.L.	< D.L.	7.71	< D.L.	6.01	< D.L.
Caldas 23	Bernesga Mb.	25.46	0.05	318.92	< D.L.	207.36	0.23	0.78	2.80	49.23	< D.L.	1.90	< D.L.	20.14	< D.L.
Caldas 24	Bernesga Mb.	24.34	0.05	314.93	< D.L.	210.78	0.22	0.82	2.71	52.47	< D.L.	2.51	< D.L.	16.28	< D.L.
Caldas 25	Bernesga Mb.	25.90	0.05	307.78	< D.L.	218.17	0.26	0.80	2.05	81.83	< D.L.	3.34	< D.L.	13.16	< D.L.

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
Caldas 1	Bernesga Mb.	0.76	1.32	0.02	6.71	1.06	2.04	< D.L.	0.58	1.72
Caldas 2	Bernesga Mb.	0.90	1.11	0.02	6.63	1.06	9.17	< D.L.	0.52	1.91
Caldas 3	Bernesga Mb.	0.77	1.30	0.02	6.34	1.02	1.70	< D.L.	0.57	1.74
Caldas 4	Bernesga Mb.	0.96	1.04	0.02	6.55	1.10	4.87	< D.L.	0.36	2.77
Caldas 5	Bernesga Mb.	0.84	1.20	0.02	5.98	1.08	8.07	< D.L.	0.53	1.90
Caldas 6	Bernesga Mb.	0.92	1.08	0.02	6.57	1.07	1.98	< D.L.	0.41	2.43
Caldas 7	Bernesga Mb.	0.95	1.05	0.02	6.70	1.06	12.58	< D.L.	0.30	3.34
Caldas 8	Bernesga Mb.	0.86	1.17	0.02	6.24	1.10	1.33	< D.L.	0.27	3.67
Caldas 9	Bernesga Mb.	0.99	1.01	0.02	8.20	1.25	13.36	< D.L.	0.19	5.29
Caldas 10	Bernesga Mb.	0.93	1.08	0.02	6.55	1.07	1.55	< D.L.	0.32	3.16
Caldas 11	Bernesga Mb.	0.90	1.11	0.02	6.75	1.17	1.74	< D.L.	0.50	2.00
Caldas 12	Bernesga Mb.	1.06	0.94	0.02	6.61	1.09	8.11	< D.L.	0.59	1.70
Caldas 13	Bernesga Mb.	0.99	1.01	0.02	6.82	1.11	4.99	< D.L.	0.43	2.35
Caldas 14	Bernesga Mb.	1.03	0.97	0.02	7.23	1.40	7.77	< D.L.	0.44	2.30
Caldas 15	Bernesga Mb.	1.04	0.96	0.02	7.52	1.30	10.70	< D.L.	0.33	3.02
Caldas 16	Bernesga Mb.	1.03	0.97	0.02	7.30	1.32	7.04	< D.L.	0.43	2.32
Caldas 17	Bernesga Mb.	1.12	0.89	0.02	7.28	1.09	11.76	< D.L.	0.48	2.08
Caldas 18	Bernesga Mb.	0.99	1.01	0.02	6.76	1.35	5.53	< D.L.	0.42	2.36
Caldas 19	Bernesga Mb.	0.75	1.34	0.02	6.39	1.00	1.37	< D.L.	0.55	1.81
Caldas 20	Bernesga Mb.	0.81	1.24	0.02	6.01	1.10	2.50	< D.L.	0.42	2.37
Caldas 21	Bernesga Mb.	0.88	1.14	0.02	6.40	1.16	1.95	< D.L.	0.43	2.30
Caldas 22	Bernesga Mb.	0.79	1.27	0.02	6.43	1.05	1.74	< D.L.	0.46	2.17
Caldas 23	Bernesga Mb.	0.94	1.06	0.02	6.59	1.20	4.03	< D.L.	0.28	3.57
Caldas 24	Bernesga Mb.	0.92	1.09	0.02	6.48	1.12	3.19	< D.L.	0.30	3.32
Caldas 25	Bernesga Mb.	0.82	1.22	0.02	6.11	1.02	3.12	< D.L.	0.39	2.56

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
Caldas 1	Bernesga Mb.	1.86	0.82	15.39	< D.L.	< D.L.	2.28	5.39	8.96
Caldas 2	Bernesga Mb.	3.89	0.75	17.85	< D.L.	< D.L.	4.67	7.63	9.34
Caldas 3	Bernesga Mb.	2.71	0.96	15.95	< D.L.	< D.L.	2.86	6.10	9.15
Caldas 4	Bernesga Mb.	7.40	0.66	21.15	< D.L.	< D.L.	3.94	7.44	7.64
Caldas 5	Bernesga Mb.	2.08	1.00	16.46	< D.L.	< D.L.	2.05	3.26	8.67
Caldas 6	Bernesga Mb.	1.80	0.99	22.10	< D.L.	< D.L.	2.01	3.82	9.09
Caldas 7	Bernesga Mb.	2.81	1.23	32.61	< D.L.	3.71	2.69	6.04	9.77
Caldas 8	Bernesga Mb.	1.65	1.35	36.44	< D.L.	< D.L.	1.04	4.41	9.93
Caldas 9	Bernesga Mb.	5.10	1.35	21.55	3.44	< D.L.	10.73	17.26	4.08
Caldas 10	Bernesga Mb.	1.06	0.83	35.66	< D.L.	< D.L.	1.85	3.70	11.30
Caldas 11	Bernesga Mb.	0.83	0.83	19.26	< D.L.	2.06	1.26	2.84	9.61
Caldas 12	Bernesga Mb.	5.67	0.88	11.74	3.49	< D.L.	9.30	9.11	6.91
Caldas 13	Bernesga Mb.	4.74	0.71	18.18	< D.L.	< D.L.	5.52	7.14	7.74
Caldas 14	Bernesga Mb.	4.98	< D.L.	12.73	3.26	< D.L.	9.30	9.71	5.54
Caldas 15	Bernesga Mb.	6.62	< D.L.	15.42	3.21	< D.L.	13.00	10.24	5.11
Caldas 16	Bernesga Mb.	5.14	0.81	14.46	< D.L.	< D.L.	13.71	9.00	6.24
Caldas 17	Bernesga Mb.	5.27	< D.L.	13.21	4.66	< D.L.	16.59	13.47	6.33
Caldas 18	Bernesga Mb.	4.07	0.66	13.67	< D.L.	< D.L.	6.84	4.87	5.79
Caldas 19	Bernesga Mb.	0.68	1.00	15.85	< D.L.	3.00	0.86	4.77	8.76
Caldas 20	Bernesga Mb.	2.63	1.04	19.52	< D.L.	< D.L.	3.82	6.28	8.23
Caldas 21	Bernesga Mb.	2.59	1.09	22.24	< D.L.	2.69	2.24	4.69	9.66
Caldas 22	Bernesga Mb.	1.24	1.13	20.90	< D.L.	4.83	1.92	3.84	9.63
Caldas 23	Bernesga Mb.	6.93	0.63	27.29	< D.L.	< D.L.	8.71	6.16	7.64
Caldas 24	Bernesga Mb.	7.16	0.84	28.34	< D.L.	< D.L.	7.02	6.15	8.55
Caldas 25	Bernesga Mb.	3.99	0.75	21.72	< D.L.	< D.L.	5.47	5.56	8.50

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
Caldas 1	Bernesga Mb.	< D.L.	16.29	38.59	25.64	9.53	0.74	26.37	< D.L.
Caldas 2	Bernesga Mb.	< D.L.	16.35	35.11	101.09	9.94	0.70	23.99	< D.L.
Caldas 3	Bernesga Mb.	0.26	15.72	37.01	20.64	9.33	0.72	25.29	0.14
Caldas 4	Bernesga Mb.	< D.L.	13.71	53.78	42.56	8.38	0.74	36.75	< D.L.
Caldas 5	Bernesga Mb.	< D.L.	14.94	30.09	90.32	9.36	0.83	20.57	< D.L.
Caldas 6	Bernesga Mb.	0.24	13.83	28.69	20.89	9.75	0.85	19.61	0.13
Caldas 7	Bernesga Mb.	0.48	15.14	32.52	136.01	10.30	0.84	22.22	0.25
Caldas 8	Bernesga Mb.	0.34	15.57	29.46	16.90	10.88	0.89	20.13	0.18
Caldas 9	Bernesga Mb.	0.52	13.24	30.00	68.56	5.09	0.56	20.50	0.28
Caldas 10	Bernesga Mb.	0.37	16.62	33.46	20.18	12.04	0.91	22.86	0.19
Caldas 11	Bernesga Mb.	< D.L.	15.15	30.37	21.68	11.25	0.87	20.75	< D.L.
Caldas 12	Bernesga Mb.	0.35	12.53	61.33	57.22	7.51	0.56	41.91	0.19
Caldas 13	Bernesga Mb.	0.31	13.55	31.23	43.35	8.60	0.72	21.34	0.17
Caldas 14	Bernesga Mb.	< D.L.	13.02	37.89	58.66	7.75	0.57	25.90	< D.L.
Caldas 15	Bernesga Mb.	0.43	12.75	34.92	68.29	6.65	0.60	23.87	0.23
Caldas 16	Bernesga Mb.	0.44	13.63	36.25	56.31	8.22	0.62	24.77	0.23
Caldas 17	Bernesga Mb.	< D.L.	13.55	39.13	72.57	6.92	0.50	26.74	< D.L.
Caldas 18	Bernesga Mb.	0.29	11.93	25.99	43.47	7.81	0.74	17.76	0.15
Caldas 19	Bernesga Mb.	< D.L.	15.32	27.83	16.11	8.76	0.77	19.02	< D.L.
Caldas 20	Bernesga Mb.	< D.L.	15.97	29.31	28.11	9.06	0.76	20.03	< D.L.
Caldas 21	Bernesga Mb.	< D.L.	17.03	31.48	24.95	11.20	0.83	21.51	< D.L.
Caldas 22	Bernesga Mb.	< D.L.	16.27	30.22	22.41	10.14	0.84	20.65	< D.L.
Caldas 23	Bernesga Mb.	0.55	15.55	29.75	39.23	9.19	0.82	20.33	0.29
Caldas 24	Bernesga Mb.	0.54	15.97	32.24	33.30	9.58	0.82	22.03	0.29
Caldas 25	Bernesga Mb.	0.27	14.77	30.12	33.18	8.68	0.80	20.58	0.14

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
Caldas 1	Bernesga Mb.	1.57	0.64	1.36	11.61	< D.L.	0.73	-0.14	2.80	0.01	< D.L.	< D.L.
Caldas 2	Bernesga Mb.	1.46	0.68	1.28	13.28	< D.L.	1.01	0.01	5.89	0.01	< D.L.	< D.L.
Caldas 3	Bernesga Mb.	1.36	0.74	1.36	9.68	< D.L.	0.85	-0.07	4.06	0.01	< D.L.	< D.L.
Caldas 4	Bernesga Mb.	0.59	1.70	1.25	12.72	< D.L.	2.14	0.33	12.16	0.01	< D.L.	< D.L.
Caldas 5	Bernesga Mb.	1.23	0.81	1.38	9.33	< D.L.	0.90	-0.05	3.21	0.01	< D.L.	< D.L.
Caldas 6	Bernesga Mb.	1.27	0.79	1.47	9.85	< D.L.	0.97	-0.01	2.89	0.01	< D.L.	< D.L.
Caldas 7	Bernesga Mb.	1.02	0.98	1.39	8.37	0.33	1.05	0.02	4.34	0.02	0.04	0.41
Caldas 8	Bernesga Mb.	1.05	0.95	1.51	8.08	< D.L.	0.85	-0.07	2.42	0.01	0.03	0.34
Caldas 9	Bernesga Mb.	2.12	0.47	0.77	3.76	< D.L.	26.97	1.43	7.02	0.01	0.07	0.71
Caldas 10	Bernesga Mb.	1.89	0.53	1.51	14.46	< D.L.	0.90	-0.05	1.42	0.02	< D.L.	< D.L.
Caldas 11	Bernesga Mb.	1.49	0.67	1.57	13.59	0.40	0.83	-0.08	1.19	0.01	< D.L.	< D.L.
Caldas 12	Bernesga Mb.	< D.L.	< D.L.	1.16	8.54	< D.L.	5.37	0.73	8.88	0.01	< D.L.	< D.L.
Caldas 13	Bernesga Mb.	< D.L.	< D.L.	1.28	12.17	< D.L.	2.73	0.44	7.43	0.01	0.03	0.31
Caldas 14	Bernesga Mb.	< D.L.	< D.L.	1.17	< D.L.	< D.L.	5.44	0.74	7.54	0.01	0.03	0.30
Caldas 15	Bernesga Mb.	< D.L.	< D.L.	1.02	< D.L.	< D.L.	9.14	0.96	9.49	0.01	0.08	0.78
Caldas 16	Bernesga Mb.	< D.L.	< D.L.	1.19	10.19	< D.L.	4.78	0.68	7.49	0.01	0.04	0.43
Caldas 17	Bernesga Mb.	< D.L.	< D.L.	0.97	< D.L.	< D.L.	11.89	1.08	7.35	0.01	0.07	0.66
Caldas 18	Bernesga Mb.	< D.L.	< D.L.	1.31	11.75	< D.L.	2.76	0.44	7.10	0.01	0.04	0.36
Caldas 19	Bernesga Mb.	1.33	0.75	1.34	8.74	0.33	0.82	-0.09	1.08	0.01	0.03	0.30
Caldas 20	Bernesga Mb.	0.91	1.09	1.27	8.73	< D.L.	1.20	0.08	3.93	0.01	< D.L.	< D.L.
Caldas 21	Bernesga Mb.	1.32	0.76	1.41	10.31	0.40	0.89	-0.05	3.59	0.01	< D.L.	< D.L.
Caldas 22	Bernesga Mb.	1.42	0.70	1.41	9.00	0.23	0.79	-0.10	1.80	0.01	< D.L.	< D.L.
Caldas 23	Bernesga Mb.	0.61	1.65	1.22	14.70	< D.L.	2.09	0.32	10.41	0.01	< D.L.	< D.L.
Caldas 24	Bernesga Mb.	0.63	1.60	1.25	11.43	< D.L.	1.79	0.25	10.27	0.01	< D.L.	< D.L.
Caldas 25	Bernesga Mb.	0.86	1.17	1.31	11.52	< D.L.	1.53	0.18	6.19	0.01	< D.L.	< D.L.

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	V (wt%)	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
Caldas 1	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.89	0.02	7.08	14.38	404802.86	1158.03	-24.64
Caldas 2	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.81	0.03	7.71	15.04	398759.93	1861.53	-23.26
Caldas 3	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.93	0.02	7.29	14.01	397661.25	1345.20	-24.03
Caldas 4	Bernesga Mb.	< D.L.	< D.L.	< D.L.	8.71	0.03	7.01	13.77	406058.83	1870.47	-15.75
Caldas 5	Bernesga Mb.	< D.L.	< D.L.	< D.L.	9.10	0.03	7.65	14.42	407582.37	816.93	-24.93
Caldas 6	Bernesga Mb.	< D.L.	< D.L.	< D.L.	9.19	0.04	7.49	15.69	421508.52	937.20	-25.99
Caldas 7	Bernesga Mb.	824.45	0.06	0.08	12.53	0.05	7.90	15.91	407666.95	1348.20	-24.50
Caldas 8	Bernesga Mb.	674.34	0.05	0.07	12.84	0.05	7.57	15.97	403334.99	800.00	-24.10
Caldas 9	Bernesga Mb.	1417.26	0.11	0.14	5.47	0.03	4.02	7.00	282671.14	3849.90	94.90
Caldas 10	Bernesga Mb.	< D.L.	< D.L.	< D.L.	4.13	0.05	7.29	16.12	377904.56	743.03	-21.42
Caldas 11	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.00	0.03	7.36	16.22	396260.37	591.53	-23.68
Caldas 12	Bernesga Mb.	< D.L.	< D.L.	< D.L.	13.76	0.02	5.94	11.76	361894.14	2883.67	11.23
Caldas 13	Bernesga Mb.	616.01	0.05	0.06	11.09	0.03	6.79	13.50	387402.84	1987.17	-10.76
Caldas 14	Bernesga Mb.	602.52	0.05	0.06	< D.L.	0.02	5.93	11.73	351225.59	2879.57	13.47
Caldas 15	Bernesga Mb.	1556.71	0.12	0.16	< D.L.	0.02	4.98	9.54	324720.28	3334.00	36.76
Caldas 16	Bernesga Mb.	850.64	0.06	0.09	11.76	0.02	5.98	11.99	346317.36	3311.97	8.64
Caldas 17	Bernesga Mb.	1324.94	0.10	0.13	< D.L.	0.02	4.85	9.65	306793.27	4193.57	49.79
Caldas 18	Bernesga Mb.	710.36	0.05	0.07	11.59	0.02	6.59	13.61	410755.35	2042.37	-12.43
Caldas 19	Bernesga Mb.	606.09	0.05	0.06	8.81	0.02	6.85	13.80	416978.53	886.73	-26.67
Caldas 20	Bernesga Mb.	< D.L.	< D.L.	< D.L.	10.79	0.03	7.13	13.54	393990.84	1510.17	-21.49
Caldas 21	Bernesga Mb.	< D.L.	< D.L.	< D.L.	8.42	0.03	7.38	15.52	384396.71	959.87	-21.62
Caldas 22	Bernesga Mb.	< D.L.	< D.L.	< D.L.	8.57	0.03	7.15	14.65	396548.31	830.90	-23.57
Caldas 23	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.49	0.04	6.80	13.81	380156.83	2233.33	-14.86
Caldas 24	Bernesga Mb.	< D.L.	< D.L.	< D.L.	9.50	0.04	6.79	13.73	375463.94	1889.10	-15.61
Caldas 25	Bernesga Mb.	< D.L.	< D.L.	< D.L.	8.37	0.03	6.92	13.48	396645.34	1712.43	-19.17

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
Caldas 1	Bernesga Mb.	-11.51	15.39	-3.25	0.78	92.93	94.18
Caldas 2	Bernesga Mb.	-10.87	15.44	-2.58	0.81	94.02	94.91
Caldas 3	Bernesga Mb.	-11.23	15.32	-3.00	0.79	93.62	94.64
Caldas 4	Bernesga Mb.	-7.36	16.77	1.65	1.29	93.97	94.78
Caldas 5	Bernesga Mb.	-11.65	15.71	-3.21	0.78	94.13	95.00
Caldas 6	Bernesga Mb.	-12.15	16.42	-3.33	0.79	94.55	95.30
Caldas 7	Bernesga Mb.	-11.45	15.76	-2.99	0.79	94.63	95.35
Caldas 8	Bernesga Mb.	-11.26	14.98	-3.22	0.78	93.34	94.33
Caldas 9	Bernesga Mb.	44.34	14.03	51.88	0.46	95.08	95.47
Caldas 10	Bernesga Mb.	-10.01	13.66	-2.67	0.79	93.03	94.08
Caldas 11	Bernesga Mb.	-11.06	14.71	-3.16	0.78	93.08	94.13
Caldas 12	Bernesga Mb.	5.25	15.98	13.83	0.28	94.01	94.77
Caldas 13	Bernesga Mb.	-5.03	16.01	3.57	3.45	93.93	94.71
Caldas 14	Bernesga Mb.	6.29	15.46	14.59	0.30	93.57	94.42
Caldas 15	Bernesga Mb.	17.18	14.64	25.04	0.41	93.80	94.55
Caldas 16	Bernesga Mb.	4.04	14.88	12.03	0.25	93.45	94.33
Caldas 17	Bernesga Mb.	23.26	14.24	30.91	0.43	93.94	94.63
Caldas 18	Bernesga Mb.	-5.81	17.79	3.75	2.82	94.32	95.03
Caldas 19	Bernesga Mb.	-12.46	16.07	-3.83	0.76	94.38	95.18
Caldas 20	Bernesga Mb.	-10.04	15.25	-1.85	0.84	94.14	95.00
Caldas 21	Bernesga Mb.	-10.10	14.13	-2.51	0.80	92.61	93.81
Caldas 22	Bernesga Mb.	-11.01	14.73	-3.10	0.78	93.48	94.54
Caldas 23	Bernesga Mb.	-6.95	15.32	1.28	1.23	93.70	94.54
Caldas 24	Bernesga Mb.	-7.29	14.63	0.56	1.08	93.29	94.25
Caldas 25	Bernesga Mb.	-8.96	15.84	-0.45	0.95	93.46	94.41

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
Caldas 1	Bernesga Mb.	80.04	1.77	1.76	1.79
Caldas 2	Bernesga Mb.	82.53	2.99	0.31	3.02
Caldas 3	Bernesga Mb.	81.60	2.51	0.95	2.54
Caldas 4	Bernesga Mb.	83.56	8.74	-0.87	8.77
Caldas 5	Bernesga Mb.	82.79	2.83	0.39	2.86
Caldas 6	Bernesga Mb.	83.76	4.07	0.31	4.10
Caldas 7	Bernesga Mb.	84.03	3.43	-0.26	3.46
Caldas 8	Bernesga Mb.	82.14	2.22	0.27	2.25
Caldas 9	Bernesga Mb.	88.44	47.90	-15.88	47.92
Caldas 10	Bernesga Mb.	81.72	1.37	-0.16	1.40
Caldas 11	Bernesga Mb.	81.72	1.95	0.31	1.98
Caldas 12	Bernesga Mb.	84.11	17.64	-4.70	17.67
Caldas 13	Bernesga Mb.	83.94	9.70	-1.89	9.73
Caldas 14	Bernesga Mb.	83.41	17.45	-4.81	17.47
Caldas 15	Bernesga Mb.	84.31	26.67	-7.05	26.69
Caldas 16	Bernesga Mb.	83.09	14.69	-4.22	14.72
Caldas 17	Bernesga Mb.	85.00	30.96	-9.04	30.98
Caldas 18	Bernesga Mb.	84.44	11.80	-1.67	11.82
Caldas 19	Bernesga Mb.	83.37	3.26	0.39	3.29
Caldas 20	Bernesga Mb.	82.87	3.85	0.01	3.88
Caldas 21	Bernesga Mb.	80.71	1.53	0.43	1.56
Caldas 22	Bernesga Mb.	81.36	1.55	0.64	1.58
Caldas 23	Bernesga Mb.	83.39	6.80	-1.44	6.83
Caldas 24	Bernesga Mb.	82.48	5.31	-0.99	5.34
Caldas 25	Bernesga Mb.	82.45	5.38	-0.42	5.41

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
Caldas 1	Bernesga Mb.	3.60	4.90	-44.90	0.88
Caldas 2	Bernesga Mb.	1.91	4.69	-43.97	0.86
Caldas 3	Bernesga Mb.	2.63	4.81	-43.66	0.87
Caldas 4	Bernesga Mb.	0.79	4.36	-54.58	0.77
Caldas 5	Bernesga Mb.	1.99	4.72	-43.75	0.88
Caldas 6	Bernesga Mb.	1.88	4.65	-45.39	0.88
Caldas 7	Bernesga Mb.	1.23	4.59	-43.44	0.87
Caldas 8	Bernesga Mb.	1.90	4.73	-42.64	0.88
Caldas 9	Bernesga Mb.	-14.80	1.50	-139.18	0.31
Caldas 10	Bernesga Mb.	1.39	4.80	-39.79	0.87
Caldas 11	Bernesga Mb.	1.96	4.81	-42.01	0.88
Caldas 12	Bernesga Mb.	-3.15	3.83	-73.69	0.58
Caldas 13	Bernesga Mb.	-0.32	4.46	-55.57	0.73
Caldas 14	Bernesga Mb.	-3.23	4.00	-73.98	0.57
Caldas 15	Bernesga Mb.	-5.62	3.30	-91.99	0.46
Caldas 16	Bernesga Mb.	-2.67	4.21	-67.72	0.59
Caldas 17	Bernesga Mb.	-7.69	2.93	-101.16	0.41
Caldas 18	Bernesga Mb.	-0.02	4.48	-60.31	0.73
Caldas 19	Bernesga Mb.	1.96	4.83	-43.87	0.89
Caldas 20	Bernesga Mb.	1.56	4.74	-44.85	0.84
Caldas 21	Bernesga Mb.	2.12	4.84	-41.94	0.87
Caldas 22	Bernesga Mb.	2.29	4.86	-42.52	0.88
Caldas 23	Bernesga Mb.	0.12	4.69	-49.55	0.77
Caldas 24	Bernesga Mb.	0.59	4.73	-47.24	0.79
Caldas 25	Bernesga Mb.	1.26	4.78	-48.78	0.81

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
Caldas 1	Bernesga Mb.	3.35	0.47	4.00	4.00	1.00	< D.L.	9.00
Caldas 2	Bernesga Mb.	3.62	0.46	4.00	4.00	1.00	< D.L.	9.00
Caldas 3	Bernesga Mb.	3.43	0.45	4.00	4.00	4.00	< D.L.	12.00
Caldas 4	Bernesga Mb.	8.20	0.58	4.00	4.00	1.00	< D.L.	9.00
Caldas 5	Bernesga Mb.	3.23	0.44	4.00	4.00	1.00	< D.L.	9.00
Caldas 6	Bernesga Mb.	3.49	0.42	4.00	4.00	4.00	< D.L.	12.00
Caldas 7	Bernesga Mb.	3.33	0.43	4.00	4.00	4.00	< D.L.	12.00
Caldas 8	Bernesga Mb.	3.00	0.44	4.00	4.00	4.00	< D.L.	12.00
Caldas 9	Bernesga Mb.	88.37	2.40	4.00	4.00	4.00	< D.L.	12.00
Caldas 10	Bernesga Mb.	3.07	0.46	4.00	4.00	4.00	< D.L.	12.00
Caldas 11	Bernesga Mb.	3.03	0.44	4.00	4.00	1.00	< D.L.	9.00
Caldas 12	Bernesga Mb.	21.84	0.98	4.00	4.00	4.00	< D.L.	12.00
Caldas 13	Bernesga Mb.	9.87	0.64	4.00	4.00	4.00	< D.L.	12.00
Caldas 14	Bernesga Mb.	22.28	1.03	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 15	Bernesga Mb.	38.86	1.39	1.00	< D.L.	4.00	< D.L.	< D.L.
Caldas 16	Bernesga Mb.	19.24	0.97	4.00	4.00	4.00	< D.L.	12.00
Caldas 17	Bernesga Mb.	47.24	1.63	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 18	Bernesga Mb.	11.07	0.62	4.00	4.00	4.00	< D.L.	12.00
Caldas 19	Bernesga Mb.	3.23	0.40	4.00	4.00	1.00	< D.L.	9.00
Caldas 20	Bernesga Mb.	4.45	0.47	4.00	4.00	1.00	< D.L.	9.00
Caldas 21	Bernesga Mb.	3.33	0.48	4.00	4.00	1.00	< D.L.	9.00
Caldas 22	Bernesga Mb.	3.18	0.45	4.00	4.00	1.00	< D.L.	9.00
Caldas 23	Bernesga Mb.	7.52	0.58	4.00	4.00	4.00	< D.L.	12.00
Caldas 24	Bernesga Mb.	6.59	0.56	4.00	4.00	4.00	< D.L.	12.00
Caldas 25	Bernesga Mb.	6.07	0.53	4.00	4.00	4.00	< D.L.	12.00

2.2 Caldas 26 - 50

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
Caldas 26	Bernesga Mb.	86.03	< D.L.	38.79	124.82	38.79
Caldas 27	Bernesga Mb.	77.57	< D.L.	38.43	116.00	38.43
Caldas 28	Bernesga Mb.	80.71	< D.L.	33.63	114.35	33.63
Caldas 29	Bernesga Mb.	66.48	< D.L.	36.03	102.51	36.03
Caldas 30	Bernesga Mb.	69.64	25.02	41.85	136.51	66.87
Caldas 31	Bernesga Mb.	87.77	< D.L.	42.95	130.72	42.95
Caldas 32	Bernesga Mb.	120.69	< D.L.	27.76	148.45	27.76
Caldas 33	Bernesga Mb.	86.84	< D.L.	41.16	128.00	41.16
Caldas 34	Bernesga Mb.	95.67	39.43	42.43	177.52	81.86
Caldas 35	Bernesga Mb.	55.66	41.61	42.92	140.20	84.53
Caldas 36	Bernesga Mb.	70.82	44.97	44.50	160.30	89.47
Caldas 37	Bernesga Mb.	81.44	34.69	39.32	155.45	74.01
Caldas 38	Bernesga Mb.	81.62	46.70	42.95	171.27	89.65
Caldas 39	Bernesga Mb.	76.51	42.57	41.94	161.02	84.51
Caldas 40	Bernesga Mb.	62.11	39.81	41.08	143.00	80.89
Caldas 41	Bernesga Mb.	50.44	< D.L.	29.63	80.08	29.63
Caldas 42	Bernesga Mb.	58.57	< D.L.	35.29	93.86	35.29
Caldas 43	Bernesga Mb.	93.66	36.20	44.93	174.79	81.13
Caldas 44	Bernesga Mb.	65.47	26.20	43.51	135.18	69.71
Caldas 45	Bernesga Mb.	58.54	16.71	37.08	112.33	53.79
Caldas 46	Bernesga Mb.	73.86	< D.L.	41.63	115.49	41.63
Caldas 47	Bernesga Mb.	< D.L.	< D.L.	32.86	32.86	32.86
Caldas 48	Bernesga Mb.	< D.L.	< D.L.	38.87	38.87	38.87
Caldas 49	Bernesga Mb.	< D.L.	13.79	34.77	48.56	48.56
Caldas 50	Bernesga Mb.	< D.L.	< D.L.	28.70	28.70	28.70

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
Caldas 26	Bernesga Mb.	102.88	< D.L.	58.33	161.21	58.33
Caldas 27	Bernesga Mb.	92.76	< D.L.	57.79	150.55	57.79
Caldas 28	Bernesga Mb.	96.52	< D.L.	50.57	147.09	50.57
Caldas 29	Bernesga Mb.	79.49	< D.L.	54.18	133.68	54.18
Caldas 30	Bernesga Mb.	83.28	39.40	62.93	185.61	102.33
Caldas 31	Bernesga Mb.	104.96	< D.L.	64.58	169.54	64.58
Caldas 32	Bernesga Mb.	144.32	< D.L.	41.74	186.06	41.74
Caldas 33	Bernesga Mb.	103.84	< D.L.	61.89	165.73	61.89
Caldas 34	Bernesga Mb.	114.40	62.09	63.80	240.29	125.89
Caldas 35	Bernesga Mb.	66.56	65.53	64.54	196.64	130.08
Caldas 36	Bernesga Mb.	84.69	70.83	66.92	222.44	137.74
Caldas 37	Bernesga Mb.	97.39	54.63	59.13	211.15	113.76
Caldas 38	Bernesga Mb.	97.60	73.55	64.58	235.73	138.13
Caldas 39	Bernesga Mb.	91.49	67.04	63.07	221.60	130.11
Caldas 40	Bernesga Mb.	74.27	62.69	61.78	198.74	124.47
Caldas 41	Bernesga Mb.	60.32	< D.L.	44.56	104.88	44.56
Caldas 42	Bernesga Mb.	70.04	< D.L.	53.06	123.10	53.06
Caldas 43	Bernesga Mb.	112.00	57.01	67.56	236.58	124.58
Caldas 44	Bernesga Mb.	78.29	41.27	65.42	184.98	106.69
Caldas 45	Bernesga Mb.	70.00	26.32	55.76	152.08	82.08
Caldas 46	Bernesga Mb.	88.32	< D.L.	62.60	150.92	62.60
Caldas 47	Bernesga Mb.	< D.L.	< D.L.	49.41	49.41	49.41
Caldas 48	Bernesga Mb.	< D.L.	< D.L.	58.46	58.46	58.46
Caldas 49	Bernesga Mb.	< D.L.	21.72	52.28	74.00	74.00
Caldas 50	Bernesga Mb.	< D.L.	< D.L.	43.16	43.16	43.16

Sample	Formation	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al Calibrated	Al2O3*5	10Al2O3
Caldas 26	Bernesga Mb.	128.60	257.20	12.86	4.44	5.94	32.26	19.27	144613.95	136.62	273.24
Caldas 27	Bernesga Mb.	115.95	231.90	11.60	4.03	5.39	34.24	13.73	155319.44	146.74	293.47
Caldas 28	Bernesga Mb.	120.65	241.30	12.07	4.18	5.61	32.66	16.95	150025.55	141.73	283.47
Caldas 29	Bernesga Mb.	99.37	198.73	9.94	3.41	4.58	37.13	18.78	172112.12	162.60	325.20
Caldas 30	Bernesga Mb.	104.10	208.20	7.13	3.60	4.82	34.43	6.24	154131.85	145.61	291.23
Caldas 31	Bernesga Mb.	131.20	262.40	13.12	4.52	6.05	37.89	11.36	171739.67	162.25	324.50
Caldas 32	Bernesga Mb.	180.40	360.80	18.04	5.78	7.74	32.04	37.32	150452.60	142.14	284.27
Caldas 33	Bernesga Mb.	129.80	259.60	12.98	4.47	5.99	34.96	12.23	157420.32	148.72	297.44
Caldas 34	Bernesga Mb.	143.00	286.00	9.13	4.86	6.51	35.86	5.24	161345.25	152.43	304.86
Caldas 35	Bernesga Mb.	83.20	166.40	2.86	2.71	3.63	35.63	5.67	159833.79	151.00	302.00
Caldas 36	Bernesga Mb.	105.87	211.73	4.68	3.67	4.91	36.09	5.23	161240.05	152.33	304.66
Caldas 37	Bernesga Mb.	121.73	243.47	7.62	4.22	5.65	34.73	4.85	157317.90	148.62	297.25
Caldas 38	Bernesga Mb.	122.00	244.00	6.07	4.23	5.67	33.84	5.09	150335.21	142.03	284.05
Caldas 39	Bernesga Mb.	114.37	228.73	5.85	3.97	5.32	33.87	5.24	151139.92	142.79	285.57
Caldas 40	Bernesga Mb.	92.83	185.67	4.06	3.14	4.21	33.76	5.50	151082.05	142.73	285.46
Caldas 41	Bernesga Mb.	75.40	150.80	7.54	2.32	3.11	32.40	11.20	151183.57	142.83	285.66
Caldas 42	Bernesga Mb.	87.55	175.10	8.76	2.91	3.90	34.86	12.04	160580.42	151.71	303.41
Caldas 43	Bernesga Mb.	140.00	280.00	9.25	4.77	6.40	36.06	5.86	160802.18	151.91	303.83
Caldas 44	Bernesga Mb.	97.87	195.73	6.35	3.35	4.49	37.58	7.37	169755.16	160.37	320.75
Caldas 45	Bernesga Mb.	87.50	175.00	6.56	2.91	3.90	33.74	7.99	153513.94	145.03	290.06
Caldas 46	Bernesga Mb.	110.40	220.80	11.04	3.83	5.13	38.29	13.86	174693.50	165.04	330.08
Caldas 47	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	32.93	30.75	151942.43	143.54	287.09
Caldas 48	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	36.06	16.86	164641.90	155.54	311.08
Caldas 49	Bernesga Mb.	< D.L.	< D.L.	-1.81	< D.L.	< D.L.	29.92	8.12	134788.84	127.34	254.68
Caldas 50	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	30.35	34.30	140882.62	133.10	266.19

Sample	Formation	15Al2O3	Al2O3/10	K2O *5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	200TiO2	300TiO2	K2O/Al2O3
Caldas 26	Bernesga Mb.	409.86	2.73	18.23	0.56	< D.L.	98616.76	13.48	17.34	192.32	288.47	0.13
Caldas 27	Bernesga Mb.	440.21	2.93	18.06	0.48	11.26	49316.87	8.81	11.34	217.66	326.49	0.12
Caldas 28	Bernesga Mb.	425.20	2.83	15.80	0.55	< D.L.	81024.50	11.85	15.25	215.44	323.16	0.11
Caldas 29	Bernesga Mb.	487.80	3.25	16.93	0.53	11.58	80244.41	12.33	15.86	210.22	315.33	0.10
Caldas 30	Bernesga Mb.	436.84	2.91	19.66	0.41	< D.L.	5132.91	4.37	5.62	244.73	367.10	0.14
Caldas 31	Bernesga Mb.	486.74	3.25	20.18	0.48	10.88	28947.00	7.19	9.25	225.72	338.59	0.12
Caldas 32	Bernesga Mb.	426.41	2.84	13.04	0.64	< D.L.	223409.92	26.10	33.58	156.26	234.40	0.09
Caldas 33	Bernesga Mb.	446.16	2.97	19.34	0.43	10.38	38902.58	7.83	10.07	210.28	315.43	0.13
Caldas 34	Bernesga Mb.	457.28	3.05	19.94	< D.L.	10.52	-11079.19	2.93	3.76	238.59	357.89	0.13
Caldas 35	Bernesga Mb.	453.00	3.02	20.17	< D.L.	10.00	-7311.99	3.26	4.20	240.74	361.11	0.13
Caldas 36	Bernesga Mb.	456.99	3.05	20.91	< D.L.	11.76	-11935.10	2.84	3.65	234.82	352.23	0.14
Caldas 37	Bernesga Mb.	445.87	2.97	18.48	< D.L.	< D.L.	-5438.20	3.39	4.36	247.00	370.50	0.12
Caldas 38	Bernesga Mb.	426.08	2.84	20.18	< D.L.	10.26	-9172.44	2.84	3.66	245.50	368.25	0.14
Caldas 39	Bernesga Mb.	428.36	2.86	19.71	< D.L.	9.35	-7641.49	3.01	3.88	240.95	361.43	0.14
Caldas 40	Bernesga Mb.	428.20	2.85	19.31	< D.L.	10.60	-6751.59	3.10	3.99	244.55	366.82	0.14
Caldas 41	Bernesga Mb.	428.48	2.86	13.93	0.40	< D.L.	40539.78	7.83	10.08	199.49	299.24	0.10
Caldas 42	Bernesga Mb.	455.12	3.03	16.58	< D.L.	< D.L.	44064.62	8.42	10.83	218.85	328.27	0.11
Caldas 43	Bernesga Mb.	455.74	3.04	21.11	< D.L.	11.14	-6987.91	3.32	4.27	245.23	367.85	0.14
Caldas 44	Bernesga Mb.	481.12	3.21	20.45	< D.L.	10.94	1436.48	4.39	5.64	238.00	357.00	0.13
Caldas 45	Bernesga Mb.	435.09	2.90	17.43	< D.L.	9.77	10686.43	4.91	6.31	214.58	321.87	0.12
Caldas 46	Bernesga Mb.	495.12	3.30	19.56	0.49	11.07	45492.45	8.92	11.47	222.96	334.44	0.12
Caldas 47	Bernesga Mb.	430.63	2.87	15.44	0.58	< D.L.	177057.35	21.50	27.67	172.17	258.26	0.11
Caldas 48	Bernesga Mb.	466.63	3.11	18.27	0.47	10.54	69378.43	11.05	14.22	208.83	313.25	0.12
Caldas 49	Bernesga Mb.	382.02	2.55	16.34	< D.L.	10.49	15791.34	4.95	6.37	216.07	324.11	0.13
Caldas 50	Bernesga Mb.	399.29	2.66	13.49	0.64	< D.L.	204712.47	23.99	30.87	169.25	253.88	0.10

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
Caldas 26	Bernesga Mb.	-0.87	< D.L.	1.28	0.18	0.35	2.82	-0.45	17.39
Caldas 27	Bernesga Mb.	-0.91	0.04	1.10	0.21	0.35	2.82	-0.45	19.27
Caldas 28	Bernesga Mb.	-0.95	< D.L.	1.23	0.18	0.37	2.73	-0.44	19.79
Caldas 29	Bernesga Mb.	-0.98	0.04	1.25	0.15	0.36	2.78	-0.44	21.91
Caldas 30	Bernesga Mb.	-0.87	< D.L.	0.80	0.24	0.35	2.87	-0.46	18.51
Caldas 31	Bernesga Mb.	-0.91	0.03	1.01	0.19	0.35	2.89	-0.46	19.81
Caldas 32	Bernesga Mb.	-1.04	< D.L.	1.57	0.12	0.38	2.60	-0.41	21.44
Caldas 33	Bernesga Mb.	-0.89	0.03	1.05	0.22	0.35	2.86	-0.46	18.96
Caldas 34	Bernesga Mb.	-0.88	0.03	0.62	0.24	0.35	2.88	-0.46	22.00
Caldas 35	Bernesga Mb.	-0.87	0.03	0.67	0.23	0.35	2.88	-0.46	21.60
Caldas 36	Bernesga Mb.	-0.86	0.04	0.61	0.25	0.34	2.91	-0.46	21.16
Caldas 37	Bernesga Mb.	-0.91	< D.L.	0.69	0.24	0.35	2.83	-0.45	22.78
Caldas 38	Bernesga Mb.	-0.85	0.04	0.61	0.26	0.35	2.89	-0.46	20.30
Caldas 39	Bernesga Mb.	-0.86	0.03	0.63	0.26	0.35	2.87	-0.46	20.80
Caldas 40	Bernesga Mb.	-0.87	0.04	0.65	0.26	0.35	2.86	-0.46	21.14
Caldas 41	Bernesga Mb.	-1.01	< D.L.	1.05	0.24	0.38	2.65	-0.42	22.85
Caldas 42	Bernesga Mb.	-0.96	< D.L.	1.08	0.21	0.36	2.76	-0.44	25.29
Caldas 43	Bernesga Mb.	-0.86	0.04	0.68	0.22	0.34	2.91	-0.46	20.94
Caldas 44	Bernesga Mb.	-0.89	0.03	0.80	0.20	0.35	2.89	-0.46	22.69
Caldas 45	Bernesga Mb.	-0.92	0.03	0.85	0.25	0.36	2.80	-0.45	23.27
Caldas 46	Bernesga Mb.	-0.93	0.03	1.11	0.14	0.35	2.87	-0.46	20.50
Caldas 47	Bernesga Mb.	-0.97	< D.L.	1.49	0.09	0.37	2.72	-0.43	20.10
Caldas 48	Bernesga Mb.	-0.93	0.03	1.20	0.17	0.35	2.83	-0.45	20.38
Caldas 49	Bernesga Mb.	-0.89	0.04	0.85	0.33	0.36	2.75	-0.44	21.47
Caldas 50	Bernesga Mb.	-0.99	< D.L.	1.54	0.14	0.38	2.62	-0.42	19.78

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
Caldas 26	Bernesga Mb.	1.57	5.22	19.27	1.52	0.18	0.66	0.71	28.76	0.00
Caldas 27	Bernesga Mb.	1.52	5.14	13.73	1.63	0.21	0.61	0.43	34.25	0.00
Caldas 28	Bernesga Mb.	1.43	4.59	16.95	1.52	0.18	0.66	0.60	33.82	0.00
Caldas 29	Bernesga Mb.	1.48	4.87	18.78	1.42	0.15	0.70	0.54	34.55	0.00
Caldas 30	Bernesga Mb.	1.57	5.51	6.24	1.73	0.24	0.58	0.21	40.09	0.00
Caldas 31	Bernesga Mb.	1.64	5.67	11.36	1.54	0.19	0.65	0.32	35.50	0.00
Caldas 32	Bernesga Mb.	1.33	3.93	37.32	1.33	0.12	0.75	1.31	28.79	0.00
Caldas 33	Bernesga Mb.	1.57	5.44	12.23	1.65	0.22	0.61	0.38	32.38	0.00
Caldas 34	Bernesga Mb.	1.39	5.37	5.24	1.75	0.24	0.57	0.14	42.17	0.01
Caldas 35	Bernesga Mb.	1.40	5.43	5.67	1.71	0.23	0.58	0.15	40.92	0.00
Caldas 36	Bernesga Mb.	1.44	5.62	5.23	1.76	0.25	0.57	0.13	42.16	0.01
Caldas 37	Bernesga Mb.	1.30	5.00	4.85	1.72	0.24	0.58	0.16	43.53	0.01
Caldas 38	Bernesga Mb.	1.40	5.44	5.09	1.82	0.26	0.55	0.14	42.82	0.01
Caldas 39	Bernesga Mb.	1.37	5.31	5.24	1.80	0.26	0.55	0.15	43.07	0.01
Caldas 40	Bernesga Mb.	1.35	5.21	5.50	1.83	0.26	0.55	0.16	41.46	0.01
Caldas 41	Bernesga Mb.	1.25	4.04	11.20	1.72	0.24	0.58	0.39	36.34	0.00
Caldas 42	Bernesga Mb.	1.20	4.52	12.04	1.61	0.21	0.62	0.40	37.17	0.00
Caldas 43	Bernesga Mb.	1.45	5.67	5.86	1.65	0.22	0.61	0.16	42.75	0.01
Caldas 44	Bernesga Mb.	1.41	5.50	7.37	1.59	0.20	0.63	0.20	42.36	0.01
Caldas 45	Bernesga Mb.	1.25	4.73	7.99	1.79	0.25	0.56	0.24	41.90	0.01
Caldas 46	Bernesga Mb.	1.61	5.52	13.86	1.39	0.14	0.72	0.39	35.42	0.00
Caldas 47	Bernesga Mb.	1.43	4.52	30.75	1.22	0.09	0.82	1.07	30.64	0.00
Caldas 48	Bernesga Mb.	1.53	5.18	16.86	1.47	0.17	0.68	0.51	32.93	0.00
Caldas 49	Bernesga Mb.	1.19	4.45	8.12	2.14	0.33	0.47	0.28	37.46	0.00
Caldas 50	Bernesga Mb.	1.35	4.04	34.30	1.37	0.14	0.73	1.29	31.43	0.00

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Zr/Sc	Cr/Th	Th/Sc
Caldas 26	Bernesga Mb.	28.42	0.06	376.88	< D.L.	242.25	0.38	1.01	3.41	73.37	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 27	Bernesga Mb.	26.97	0.06	330.01	< D.L.	193.49	0.22	0.77	3.62	46.68	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 28	Bernesga Mb.	26.32	0.06	381.12	< D.L.	233.75	0.47	0.94	2.68	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 29	Bernesga Mb.	30.94	0.06	376.96	2.47	240.18	0.74	0.85	1.63	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 30	Bernesga Mb.	23.80	0.06	366.08	< D.L.	188.88	0.34	0.74	1.34	< D.L.	< D.L.	3.28	< D.L.	11.78	< D.L.
Caldas 31	Bernesga Mb.	28.75	0.06	370.14	< D.L.	215.40	0.43	0.82	1.57	42.34	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 32	Bernesga Mb.	36.38	0.06	334.21	2.31	266.59	1.06	0.83	2.57	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 33	Bernesga Mb.	28.29	0.06	357.41	< D.L.	214.01	0.44	0.96	1.68	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 34	Bernesga Mb.	25.55	0.06	354.74	< D.L.	182.01	0.29	0.75	1.15	< D.L.	6.34	5.17	4.07	8.13	0.51
Caldas 35	Bernesga Mb.	25.09	0.06	348.09	< D.L.	197.69	0.33	0.80	1.23	56.23	< D.L.	5.46	< D.L.	8.03	< D.L.
Caldas 36	Bernesga Mb.	25.95	0.06	355.24	< D.L.	208.90	0.33	0.80	1.17	< D.L.	< D.L.	5.90	< D.L.	7.93	< D.L.
Caldas 37	Bernesga Mb.	24.07	0.06	355.81	< D.L.	194.75	0.29	0.83	1.30	< D.L.	< D.L.	4.55	< D.L.	9.76	< D.L.
Caldas 38	Bernesga Mb.	23.14	0.06	369.87	< D.L.	201.10	0.30	0.82	1.13	< D.L.	10.43	6.13	7.12	7.71	0.98
Caldas 39	Bernesga Mb.	23.70	0.06	369.03	< D.L.	191.32	0.31	0.78	1.12	< D.L.	< D.L.	5.59	< D.L.	7.85	< D.L.
Caldas 40	Bernesga Mb.	23.35	0.06	359.73	< D.L.	203.32	0.37	0.82	1.23	< D.L.	< D.L.	5.22	< D.L.	8.33	< D.L.
Caldas 41	Bernesga Mb.	28.64	0.07	394.84	1.56	213.35	0.68	0.95	1.70	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 42	Bernesga Mb.	27.73	0.06	350.81	0.89	241.62	0.80	0.85	1.39	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 43	Bernesga Mb.	24.78	0.06	378.72	< D.L.	221.75	0.40	0.77	1.15	< D.L.	< D.L.	4.75	< D.L.	9.73	< D.L.
Caldas 44	Bernesga Mb.	26.95	0.06	381.96	< D.L.	210.76	0.48	0.67	1.16	< D.L.	< D.L.	3.44	< D.L.	11.17	< D.L.
Caldas 45	Bernesga Mb.	27.04	0.06	384.61	< D.L.	180.53	0.40	0.69	1.37	< D.L.	< D.L.	2.19	< D.L.	15.29	< D.L.
Caldas 46	Bernesga Mb.	29.61	0.06	375.97	1.07	234.74	0.62	0.75	1.54	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 47	Bernesga Mb.	33.35	0.07	409.88	0.50	308.56	1.20	0.88	1.98	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 48	Bernesga Mb.	29.79	0.06	358.68	0.76	216.29	0.62	0.76	1.68	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 49	Bernesga Mb.	23.57	0.06	377.16	< D.L.	166.99	0.49	0.68	1.40	< D.L.	< D.L.	1.81	< D.L.	15.38	< D.L.
Caldas 50	Bernesga Mb.	31.46	0.07	430.21	0.43	284.55	1.25	0.67	2.15	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
Caldas 26	Bernesga Mb.	1.01	0.99	0.02	6.95	1.01	7.88	< D.L.	0.30	3.39
Caldas 27	Bernesga Mb.	1.08	0.93	0.02	6.73	1.40	5.14	< D.L.	0.21	4.71
Caldas 28	Bernesga Mb.	1.06	0.94	0.02	6.71	1.13	6.65	< D.L.	0.35	2.86
Caldas 29	Bernesga Mb.	0.92	1.09	0.02	6.43	1.08	6.94	< D.L.	0.52	1.92
Caldas 30	Bernesga Mb.	0.82	1.22	0.02	6.47	1.12	2.82	< D.L.	0.55	1.82
Caldas 31	Bernesga Mb.	0.78	1.28	0.02	6.11	0.95	4.87	< D.L.	0.52	1.92
Caldas 32	Bernesga Mb.	1.12	0.89	0.02	6.01	1.36	11.78	< D.L.	0.32	3.11
Caldas 33	Bernesga Mb.	0.93	1.08	0.02	6.59	0.96	6.80	< D.L.	0.57	1.75
Caldas 34	Bernesga Mb.	0.74	1.35	0.02	6.17	0.99	1.63	< D.L.	0.65	1.54
Caldas 35	Bernesga Mb.	0.79	1.26	0.02	6.31	0.99	1.86	< D.L.	0.65	1.54
Caldas 36	Bernesga Mb.	0.70	1.43	0.02	6.25	0.88	3.66	< D.L.	0.68	1.48
Caldas 37	Bernesga Mb.	0.77	1.31	0.02	5.92	0.92	1.83	< D.L.	0.64	1.56
Caldas 38	Bernesga Mb.	0.77	1.30	0.02	6.68	0.94	1.29	< D.L.	0.73	1.37
Caldas 39	Bernesga Mb.	0.80	1.26	0.02	6.90	1.03	1.85	< D.L.	0.69	1.45
Caldas 40	Bernesga Mb.	0.88	1.14	0.02	6.90	1.08	1.84	< D.L.	0.66	1.51
Caldas 41	Bernesga Mb.	1.04	0.96	0.02	6.95	1.10	5.06	< D.L.	0.56	1.79
Caldas 42	Bernesga Mb.	1.08	0.93	0.02	7.11	1.27	5.06	< D.L.	0.61	1.64
Caldas 43	Bernesga Mb.	0.66	1.52	0.02	6.10	0.85	4.90	< D.L.	0.67	1.50
Caldas 44	Bernesga Mb.	0.70	1.43	0.02	6.50	1.05	3.89	< D.L.	0.57	1.75
Caldas 45	Bernesga Mb.	0.72	1.40	0.02	6.24	1.04	3.18	< D.L.	0.50	1.99
Caldas 46	Bernesga Mb.	0.76	1.32	0.02	5.91	1.01	4.76	< D.L.	0.49	2.06
Caldas 47	Bernesga Mb.	0.76	1.31	0.01	5.72	0.86	8.98	< D.L.	0.45	2.24
Caldas 48	Bernesga Mb.	0.95	1.06	0.02	6.52	1.24	6.84	< D.L.	0.45	2.20
Caldas 49	Bernesga Mb.	1.26	0.80	0.02	8.96	1.84	13.39	< D.L.	0.49	2.05
Caldas 50	Bernesga Mb.	1.03	0.97	0.02	7.43	1.54	10.09	< D.L.	0.31	3.20

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
Caldas 26	Bernesga Mb.	10.33	0.89	24.71	< D.L.	< D.L.	8.49	9.45	7.30
Caldas 27	Bernesga Mb.	5.25	0.75	28.80	< D.L.	< D.L.	5.40	6.35	6.11
Caldas 28	Bernesga Mb.	3.77	0.80	19.13	< D.L.	< D.L.	6.47	8.89	6.69
Caldas 29	Bernesga Mb.	3.18	0.58	11.08	2.76	< D.L.	6.82	8.17	5.78
Caldas 30	Bernesga Mb.	1.64	0.68	13.72	< D.L.	< D.L.	2.67	4.73	7.53
Caldas 31	Bernesga Mb.	2.78	0.76	13.14	< D.L.	< D.L.	3.53	5.70	6.84
Caldas 32	Bernesga Mb.	4.49	1.20	12.85	3.67	< D.L.	8.46	13.59	4.13
Caldas 33	Bernesga Mb.	3.51	0.82	13.39	< D.L.	< D.L.	5.47	5.94	7.66
Caldas 34	Bernesga Mb.	0.60	0.89	12.01	< D.L.	< D.L.	2.54	3.46	7.82
Caldas 35	Bernesga Mb.	0.88	0.52	12.66	< D.L.	< D.L.	3.05	4.13	8.24
Caldas 36	Bernesga Mb.	0.93	0.66	12.85	< D.L.	< D.L.	1.62	4.25	8.70
Caldas 37	Bernesga Mb.	1.06	0.77	13.26	< D.L.	< D.L.	2.07	3.91	8.47
Caldas 38	Bernesga Mb.	0.52	0.81	12.96	< D.L.	< D.L.	1.49	3.95	9.43
Caldas 39	Bernesga Mb.	0.67	0.76	12.62	< D.L.	< D.L.	1.35	3.95	8.71
Caldas 40	Bernesga Mb.	0.80	0.61	13.08	< D.L.	< D.L.	1.39	4.81	8.65
Caldas 41	Bernesga Mb.	2.50	0.50	11.41	2.48	< D.L.	3.87	7.76	6.36
Caldas 42	Bernesga Mb.	2.62	0.55	10.70	3.13	< D.L.	2.79	8.53	6.52
Caldas 43	Bernesga Mb.	0.97	0.87	12.90	< D.L.	< D.L.	1.62	5.16	8.63
Caldas 44	Bernesga Mb.	1.13	0.58	11.85	< D.L.	< D.L.	1.35	5.63	6.79
Caldas 45	Bernesga Mb.	1.72	0.57	13.03	< D.L.	< D.L.	2.68	5.21	6.55
Caldas 46	Bernesga Mb.	2.69	0.63	12.21	2.73	< D.L.	2.93	7.51	5.93
Caldas 47	Bernesga Mb.	3.79	< D.L.	12.36	5.79	< D.L.	2.91	14.80	5.51
Caldas 48	Bernesga Mb.	3.37	< D.L.	12.27	3.30	< D.L.	2.52	7.56	5.58
Caldas 49	Bernesga Mb.	2.02	< D.L.	12.72	< D.L.	< D.L.	2.32	6.19	6.20
Caldas 50	Bernesga Mb.	3.59	< D.L.	12.95	6.43	< D.L.	2.75	16.15	4.05

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
Caldas 26	Bernesga Mb.	0.34	14.59	34.01	57.15	7.35	0.72	23.24	0.18
Caldas 27	Bernesga Mb.	0.62	14.17	31.05	40.97	8.56	0.82	21.22	0.33
Caldas 28	Bernesga Mb.	< D.L.	12.84	33.48	47.35	7.58	0.68	22.88	< D.L.
Caldas 29	Bernesga Mb.	< D.L.	10.73	27.89	47.18	6.24	0.58	19.06	< D.L.
Caldas 30	Bernesga Mb.	< D.L.	12.42	30.78	28.82	8.41	0.74	21.04	< D.L.
Caldas 31	Bernesga Mb.	0.31	11.01	27.49	40.67	6.51	0.70	18.79	0.16
Caldas 32	Bernesga Mb.	< D.L.	11.67	50.03	58.80	5.60	0.49	34.19	< D.L.
Caldas 33	Bernesga Mb.	< D.L.	14.09	29.29	54.14	7.38	0.69	20.02	< D.L.
Caldas 34	Bernesga Mb.	< D.L.	11.55	27.20	17.01	7.71	0.78	18.59	< D.L.
Caldas 35	Bernesga Mb.	0.23	11.99	27.38	19.20	8.19	0.75	18.71	0.12
Caldas 36	Bernesga Mb.	< D.L.	11.65	27.17	40.06	7.67	0.75	18.57	< D.L.
Caldas 37	Bernesga Mb.	< D.L.	11.85	28.43	18.70	7.83	0.77	19.43	< D.L.
Caldas 38	Bernesga Mb.	< D.L.	12.30	28.92	14.81	8.84	0.77	19.76	< D.L.
Caldas 39	Bernesga Mb.	< D.L.	12.03	29.10	20.73	8.93	0.76	19.88	< D.L.
Caldas 40	Bernesga Mb.	< D.L.	12.12	29.15	19.45	9.30	0.73	19.92	< D.L.
Caldas 41	Bernesga Mb.	< D.L.	11.62	35.39	33.86	6.96	0.60	24.19	< D.L.
Caldas 42	Bernesga Mb.	< D.L.	10.98	30.49	38.84	8.28	0.56	20.84	< D.L.
Caldas 43	Bernesga Mb.	< D.L.	11.35	27.35	54.98	7.37	0.71	18.69	< D.L.
Caldas 44	Bernesga Mb.	< D.L.	10.58	26.55	39.73	7.15	0.68	18.14	< D.L.
Caldas 45	Bernesga Mb.	< D.L.	11.66	31.13	30.21	6.80	0.71	21.27	< D.L.
Caldas 46	Bernesga Mb.	< D.L.	10.21	30.87	37.74	6.02	0.62	21.09	< D.L.
Caldas 47	Bernesga Mb.	< D.L.	11.28	69.12	55.95	4.74	0.46	47.24	< D.L.
Caldas 48	Bernesga Mb.	< D.L.	10.62	41.52	49.98	6.91	0.62	28.37	< D.L.
Caldas 49	Bernesga Mb.	< D.L.	13.23	36.38	121.58	11.41	0.67	24.86	< D.L.
Caldas 50	Bernesga Mb.	< D.L.	11.91	84.17	60.72	6.22	0.45	57.52	< D.L.

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
Caldas 26	Bernesga Mb.	< D.L.	< D.L.	1.00	8.27	< D.L.	5.29	0.72	14.94	0.01	0.14	1.41
Caldas 27	Bernesga Mb.	< D.L.	< D.L.	1.17	11.47	< D.L.	3.49	0.54	8.15	0.01	0.10	0.98
Caldas 28	Bernesga Mb.	< D.L.	< D.L.	1.15	9.42	< D.L.	5.36	0.73	5.65	0.01	0.05	0.55
Caldas 29	Bernesga Mb.	< D.L.	< D.L.	1.22	10.81	< D.L.	5.20	0.72	5.48	0.01	0.04	0.45
Caldas 30	Bernesga Mb.	0.95	1.06	1.50	12.45	< D.L.	1.59	0.20	2.52	0.01	< D.L.	< D.L.
Caldas 31	Bernesga Mb.	< D.L.	< D.L.	1.35	8.52	< D.L.	2.55	0.41	4.77	0.01	< D.L.	< D.L.
Caldas 32	Bernesga Mb.	< D.L.	< D.L.	0.91	4.67	< D.L.	14.31	1.16	6.76	0.01	0.05	0.54
Caldas 33	Bernesga Mb.	< D.L.	< D.L.	1.09	8.95	< D.L.	2.89	0.46	5.52	0.01	0.06	0.64
Caldas 34	Bernesga Mb.	1.09	0.92	1.57	8.70	< D.L.	1.05	0.02	0.97	0.01	< D.L.	< D.L.
Caldas 35	Bernesga Mb.	1.97	0.51	1.54	15.73	< D.L.	1.16	0.06	1.41	0.01	< D.L.	< D.L.
Caldas 36	Bernesga Mb.	1.67	0.60	1.60	11.69	< D.L.	0.97	-0.01	1.49	0.01	0.03	0.29
Caldas 37	Bernesga Mb.	1.12	0.89	1.52	10.12	< D.L.	1.31	0.12	1.66	0.01	< D.L.	< D.L.
Caldas 38	Bernesga Mb.	1.51	0.66	1.65	10.90	< D.L.	1.01	0.00	0.78	0.01	< D.L.	< D.L.
Caldas 39	Bernesga Mb.	1.47	0.68	1.68	11.80	< D.L.	1.09	0.04	1.02	0.01	< D.L.	< D.L.
Caldas 40	Bernesga Mb.	1.69	0.59	1.64	15.13	< D.L.	1.15	0.06	1.20	0.01	< D.L.	< D.L.
Caldas 41	Bernesga Mb.	< D.L.	< D.L.	1.18	13.96	< D.L.	4.02	0.60	3.78	0.01	0.04	0.39
Caldas 42	Bernesga Mb.	< D.L.	< D.L.	1.45	15.19	< D.L.	3.63	0.56	4.20	0.01	0.06	0.58
Caldas 43	Bernesga Mb.	1.02	0.98	1.64	8.46	< D.L.	1.12	0.05	1.56	0.01	0.03	0.29
Caldas 44	Bernesga Mb.	1.05	0.95	1.64	12.41	< D.L.	1.53	0.19	1.91	0.01	0.11	1.14
Caldas 45	Bernesga Mb.	0.75	1.33	1.40	11.93	< D.L.	2.01	0.30	2.64	0.01	< D.L.	< D.L.
Caldas 46	Bernesga Mb.	< D.L.	< D.L.	1.37	9.52	< D.L.	3.26	0.51	4.70	0.01	< D.L.	< D.L.
Caldas 47	Bernesga Mb.	< D.L.	< D.L.	0.97	< D.L.	< D.L.	9.96	1.00	5.75	0.01	< D.L.	< D.L.
Caldas 48	Bernesga Mb.	< D.L.	< D.L.	1.34	< D.L.	< D.L.	4.33	0.64	5.55	0.01	< D.L.	< D.L.
Caldas 49	Bernesga Mb.	< D.L.	< D.L.	1.55	< D.L.	< D.L.	2.17	0.34	2.72	0.01	< D.L.	< D.L.
Caldas 50	Bernesga Mb.	< D.L.	< D.L.	1.03	< D.L.	< D.L.	12.72	1.10	5.06	0.01	< D.L.	< D.L.

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	V (wt%)	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
Caldas 26	Bernesga Mb.	2825.87	0.21	0.28	12.86	0.04	5.87	10.63	338454.21	2595.43	9.66
Caldas 27	Bernesga Mb.	1954.70	0.15	0.20	11.60	0.04	6.62	13.30	379299.14	1824.27	-6.94
Caldas 28	Bernesga Mb.	1090.10	0.08	0.11	12.07	0.03	6.56	11.37	351957.02	2304.87	3.51
Caldas 29	Bernesga Mb.	898.69	0.07	0.09	9.94	0.02	6.40	10.74	388355.14	2580.40	0.14
Caldas 30	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.13	0.02	7.45	12.96	390109.87	1140.17	-20.29
Caldas 31	Bernesga Mb.	< D.L.	< D.L.	< D.L.	13.12	0.02	6.88	11.17	405653.40	1584.50	-15.51
Caldas 32	Bernesga Mb.	1078.09	0.08	0.11	18.04	0.02	4.75	8.42	326895.01	3317.73	47.01
Caldas 33	Bernesga Mb.	1282.94	0.10	0.13	12.98	0.02	6.42	11.61	387191.45	1796.17	-10.43
Caldas 34	Bernesga Mb.	< D.L.	< D.L.	< D.L.	9.13	0.02	7.28	12.44	411283.45	968.03	-26.28
Caldas 35	Bernesga Mb.	< D.L.	< D.L.	< D.L.	2.86	0.02	7.35	13.09	401688.18	1148.50	-24.91
Caldas 36	Bernesga Mb.	576.42	0.04	0.06	4.68	0.02	7.18	12.37	412424.99	947.03	-26.52
Caldas 37	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.62	0.02	7.54	12.32	396779.24	941.30	-23.98
Caldas 38	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.07	0.02	7.50	13.29	391972.30	816.87	-24.13
Caldas 39	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.85	0.02	7.35	13.50	391798.12	800.40	-23.78
Caldas 40	Bernesga Mb.	< D.L.	< D.L.	< D.L.	4.06	0.02	7.46	14.05	395447.41	937.80	-23.50
Caldas 41	Bernesga Mb.	781.80	0.06	0.08	7.54	0.02	6.08	10.52	380867.44	1757.87	-9.04
Caldas 42	Bernesga Mb.	1165.83	0.09	0.12	8.76	0.02	6.66	13.30	388496.80	1818.17	-9.30
Caldas 43	Bernesga Mb.	583.44	0.04	0.06	9.25	0.02	7.49	11.85	395220.45	1090.50	-24.95
Caldas 44	Bernesga Mb.	2286.55	0.17	0.23	6.35	0.02	7.25	12.14	408075.38	1185.37	-23.64
Caldas 45	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.56	0.02	6.53	10.44	396400.16	1210.70	-18.51
Caldas 46	Bernesga Mb.	< D.L.	< D.L.	< D.L.	11.04	0.02	6.79	10.51	389626.22	1823.27	-10.86
Caldas 47	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	0.02	5.24	7.20	315837.28	2691.47	32.62
Caldas 48	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	0.02	6.35	11.38	378754.20	1659.00	-2.13
Caldas 49	Bernesga Mb.	< D.L.	< D.L.	< D.L.	-1.81	0.02	6.56	15.38	389442.44	1147.40	-14.29
Caldas 50	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	0.02	5.13	8.77	311183.11	2662.57	42.65

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
Caldas 26	Bernesga Mb.	4.51	14.76	12.44	0.27	93.78	94.56
Caldas 27	Bernesga Mb.	-3.24	15.85	5.27	-1.61	94.41	95.07
Caldas 28	Bernesga Mb.	1.64	15.31	9.86	0.14	94.62	95.19
Caldas 29	Bernesga Mb.	0.06	17.56	9.49	0.01	95.15	95.64
Caldas 30	Bernesga Mb.	-9.48	15.73	-1.04	0.90	94.12	94.87
Caldas 31	Bernesga Mb.	-7.25	17.52	2.16	1.43	94.55	95.19
Caldas 32	Bernesga Mb.	21.97	15.35	30.21	0.42	95.12	95.54
Caldas 33	Bernesga Mb.	-4.87	16.06	3.75	4.35	94.28	94.99
Caldas 34	Bernesga Mb.	-12.28	16.46	-3.44	0.78	95.03	95.65
Caldas 35	Bernesga Mb.	-11.64	16.31	-2.88	0.80	94.93	95.57
Caldas 36	Bernesga Mb.	-12.39	16.45	-3.56	0.78	94.81	95.49
Caldas 37	Bernesga Mb.	-11.21	16.05	-2.59	0.81	95.23	95.80
Caldas 38	Bernesga Mb.	-11.28	15.34	-3.04	0.79	94.57	95.31
Caldas 39	Bernesga Mb.	-11.11	15.42	-2.83	0.80	94.72	95.41
Caldas 40	Bernesga Mb.	-10.98	15.42	-2.70	0.80	94.81	95.48
Caldas 41	Bernesga Mb.	-4.23	15.43	4.06	25.30	95.37	95.81
Caldas 42	Bernesga Mb.	-4.34	16.38	4.45	-39.51	95.75	96.20
Caldas 43	Bernesga Mb.	-11.66	16.41	-2.85	0.80	94.75	95.44
Caldas 44	Bernesga Mb.	-11.05	17.32	-1.75	0.86	95.19	95.78
Caldas 45	Bernesga Mb.	-8.65	15.66	-0.24	0.97	95.34	95.88
Caldas 46	Bernesga Mb.	-5.08	17.82	4.50	8.76	94.76	95.35
Caldas 47	Bernesga Mb.	15.24	15.50	23.57	0.39	94.72	95.26
Caldas 48	Bernesga Mb.	-0.99	16.80	8.03	-0.14	94.73	95.32
Caldas 49	Bernesga Mb.	-6.68	13.75	0.71	1.12	94.93	95.55
Caldas 50	Bernesga Mb.	19.93	14.37	27.65	0.42	94.67	95.19

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
Caldas 26	Bernesga Mb.	83.97	16.82	-3.58	16.84
Caldas 27	Bernesga Mb.	85.11	11.08	-3.05	11.11
Caldas 28	Bernesga Mb.	86.06	15.99	-3.63	16.02
Caldas 29	Bernesga Mb.	86.97	17.10	-4.49	17.12
Caldas 30	Bernesga Mb.	84.10	7.19	0.36	7.22
Caldas 31	Bernesga Mb.	85.12	10.72	-1.54	10.75
Caldas 32	Bernesga Mb.	87.84	32.67	-9.70	32.69
Caldas 33	Bernesga Mb.	84.54	10.15	-2.19	10.18
Caldas 34	Bernesga Mb.	85.02	4.74	-0.16	4.77
Caldas 35	Bernesga Mb.	84.75	4.94	-0.16	4.98
Caldas 36	Bernesga Mb.	84.42	4.27	0.02	4.30
Caldas 37	Bernesga Mb.	85.60	6.60	0.39	6.64
Caldas 38	Bernesga Mb.	83.94	3.31	-0.15	3.34
Caldas 39	Bernesga Mb.	84.31	3.87	-0.26	3.90
Caldas 40	Bernesga Mb.	84.56	3.83	-0.55	3.86
Caldas 41	Bernesga Mb.	87.62	12.25	-2.79	12.28
Caldas 42	Bernesga Mb.	87.04	13.10	-2.01	13.13
Caldas 43	Bernesga Mb.	84.27	4.70	0.00	4.74
Caldas 44	Bernesga Mb.	85.36	7.13	-0.46	7.16
Caldas 45	Bernesga Mb.	85.98	6.86	-1.71	6.89
Caldas 46	Bernesga Mb.	85.67	13.07	-2.34	13.10
Caldas 47	Bernesga Mb.	86.41	27.17	-7.26	27.19
Caldas 48	Bernesga Mb.	85.73	14.72	-3.61	14.74
Caldas 49	Bernesga Mb.	85.12	4.87	-2.39	4.90
Caldas 50	Bernesga Mb.	86.81	29.07	-8.91	29.09

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
Caldas 26	Bernesga Mb.	-2.11	4.07	-68.15	0.59
Caldas 27	Bernesga Mb.	-1.61	4.36	-57.26	0.70
Caldas 28	Bernesga Mb.	-2.30	3.99	-63.63	0.63
Caldas 29	Bernesga Mb.	-3.10	4.06	-67.92	0.65
Caldas 30	Bernesga Mb.	1.88	4.51	-46.79	0.82
Caldas 31	Bernesga Mb.	0.03	4.50	-55.88	0.76
Caldas 32	Bernesga Mb.	-8.51	2.71	-101.62	0.43
Caldas 33	Bernesga Mb.	-0.69	4.49	-55.78	0.73
Caldas 34	Bernesga Mb.	1.29	4.71	-43.71	0.88
Caldas 35	Bernesga Mb.	1.29	4.74	-43.92	0.86
Caldas 36	Bernesga Mb.	1.52	4.78	-43.86	0.88
Caldas 37	Bernesga Mb.	1.75	4.51	-43.99	0.86
Caldas 38	Bernesga Mb.	1.31	4.76	-41.68	0.87
Caldas 39	Bernesga Mb.	1.17	4.74	-42.11	0.87
Caldas 40	Bernesga Mb.	0.86	4.68	-42.39	0.86
Caldas 41	Bernesga Mb.	-1.61	4.17	-54.12	0.72
Caldas 42	Bernesga Mb.	-0.76	4.11	-57.21	0.71
Caldas 43	Bernesga Mb.	1.51	4.83	-43.71	0.86
Caldas 44	Bernesga Mb.	1.01	4.69	-47.84	0.84
Caldas 45	Bernesga Mb.	-0.41	4.55	-47.31	0.80
Caldas 46	Bernesga Mb.	-0.81	4.46	-59.17	0.72
Caldas 47	Bernesga Mb.	-5.95	3.24	-88.10	0.48
Caldas 48	Bernesga Mb.	-2.15	4.17	-63.85	0.66
Caldas 49	Bernesga Mb.	-1.16	4.36	-46.14	0.78
Caldas 50	Bernesga Mb.	-7.69	2.78	-93.97	0.44

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
Caldas 26	Bernesga Mb.	20.04	0.93	4.00	4.00	4.00	< D.L.	12.00
Caldas 27	Bernesga Mb.	11.58	0.68	4.00	4.00	4.00	< D.L.	12.00
Caldas 28	Bernesga Mb.	15.73	0.80	4.00	4.00	1.00	< D.L.	9.00
Caldas 29	Bernesga Mb.	16.77	0.76	4.00	4.00	1.00	< D.L.	9.00
Caldas 30	Bernesga Mb.	5.10	0.45	4.00	4.00	1.00	< D.L.	9.00
Caldas 31	Bernesga Mb.	9.11	0.56	4.00	4.00	4.00	< D.L.	12.00
Caldas 32	Bernesga Mb.	47.76	1.48	4.00	4.00	1.00	< D.L.	9.00
Caldas 33	Bernesga Mb.	10.64	0.63	4.00	4.00	1.00	< D.L.	9.00
Caldas 34	Bernesga Mb.	3.51	0.39	4.00	4.00	1.00	< D.L.	9.00
Caldas 35	Bernesga Mb.	3.88	0.41	4.00	4.00	4.00	< D.L.	12.00
Caldas 36	Bernesga Mb.	3.46	0.40	4.00	4.00	1.00	< D.L.	9.00
Caldas 37	Bernesga Mb.	3.92	0.37	4.00	4.00	1.00	< D.L.	9.00
Caldas 38	Bernesga Mb.	3.31	0.42	4.00	4.00	1.00	< D.L.	9.00
Caldas 39	Bernesga Mb.	3.58	0.41	4.00	4.00	1.00	< D.L.	9.00
Caldas 40	Bernesga Mb.	3.63	0.42	4.00	4.00	1.00	< D.L.	9.00
Caldas 41	Bernesga Mb.	11.23	0.57	4.00	4.00	1.00	< D.L.	9.00
Caldas 42	Bernesga Mb.	11.00	0.58	4.00	4.00	1.00	< D.L.	9.00
Caldas 43	Bernesga Mb.	3.87	0.42	4.00	4.00	1.00	< D.L.	9.00
Caldas 44	Bernesga Mb.	5.27	0.44	4.00	4.00	1.00	< D.L.	9.00
Caldas 45	Bernesga Mb.	6.54	0.48	4.00	4.00	1.00	< D.L.	9.00
Caldas 46	Bernesga Mb.	11.44	0.62	4.00	4.00	1.00	< D.L.	9.00
Caldas 47	Bernesga Mb.	35.71	1.26	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 48	Bernesga Mb.	15.14	0.74	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 49	Bernesga Mb.	6.55	0.54	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 50	Bernesga Mb.	40.54	1.48	1.00	< D.L.	1.00	< D.L.	< D.L.

2.3 Caldas 51 - 75

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
Caldas 51	Bernesga Mb.	< D.L.	< D.L.	33.47	33.47	33.47
Caldas 52	Bernesga Mb.	54.09	40.76	30.58	125.42	71.34
Caldas 53	Bernesga Mb.	< D.L.	29.05	44.57	73.61	73.61
Caldas 54	Bernesga Mb.	< D.L.	< D.L.	38.85	38.85	38.85
Caldas 55	Bernesga Mb.	< D.L.	28.61	40.79	69.40	69.40
Caldas 56	Bernesga Mb.	< D.L.	< D.L.	27.54	27.54	27.54
Caldas 57	Bernesga Mb.	56.53	37.82	38.17	132.52	75.99
Caldas 58	Bernesga Mb.	< D.L.	13.11	32.83	45.94	45.94
Caldas 59	Bernesga Mb.	< D.L.	32.80	34.41	67.21	67.21
Caldas 60	Bernesga Mb.	< D.L.	< D.L.	33.70	33.70	33.70
Caldas 61	Bernesga Mb.	< D.L.	33.69	41.25	74.94	74.94
Caldas 62	Bernesga Mb.	63.09	22.77	40.00	125.85	62.76
Caldas 63	Bernesga Mb.	< D.L.	< D.L.	31.72	31.72	31.72
Caldas 64	Bernesga Mb.	< D.L.	< D.L.	33.54	33.54	33.54
Caldas 65	Bernesga Mb.	47.43	32.49	37.54	117.46	70.03
Caldas 66	Bernesga Mb.	< D.L.	< D.L.	36.48	36.48	36.48
Caldas 67	Bernesga Mb.	46.80	49.80	40.01	136.61	89.81
Caldas 68	Bernesga Mb.	74.06	44.21	42.62	160.89	86.83
Caldas 69	Bernesga Mb.	< D.L.	< D.L.	31.27	31.27	31.27
Caldas 70	Bernesga Mb.	< D.L.	< D.L.	34.94	34.94	34.94
Caldas 71	Bernesga Mb.	63.72	< D.L.	39.51	103.23	39.51
Caldas 72	Bernesga Mb.	< D.L.	20.22	39.53	59.75	59.75
Caldas 73	Bernesga Mb.	60.48	23.46	39.96	123.90	63.42
Caldas 74	Bernesga Mb.	74.53	17.27	42.35	134.15	59.62
Caldas 75	Bernesga Mb.	59.94	24.93	38.00	122.87	62.93

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
Caldas 51	Bernesga Mb.	< D.L.	< D.L.	50.32	50.32	50.32
Caldas 52	Bernesga Mb.	64.68	64.19	45.98	174.85	110.17
Caldas 53	Bernesga Mb.	< D.L.	45.75	67.02	112.76	112.76
Caldas 54	Bernesga Mb.	< D.L.	< D.L.	58.42	58.42	58.42
Caldas 55	Bernesga Mb.	< D.L.	45.05	61.34	106.40	106.40
Caldas 56	Bernesga Mb.	< D.L.	< D.L.	41.42	41.42	41.42
Caldas 57	Bernesga Mb.	67.60	59.56	57.39	184.55	116.95
Caldas 58	Bernesga Mb.	< D.L.	20.64	49.37	70.01	70.01
Caldas 59	Bernesga Mb.	< D.L.	51.65	51.75	103.40	103.40
Caldas 60	Bernesga Mb.	< D.L.	< D.L.	50.68	50.68	50.68
Caldas 61	Bernesga Mb.	< D.L.	53.05	62.04	115.09	115.09
Caldas 62	Bernesga Mb.	75.44	35.85	60.15	171.44	96.00
Caldas 63	Bernesga Mb.	< D.L.	< D.L.	47.70	47.70	47.70
Caldas 64	Bernesga Mb.	< D.L.	< D.L.	50.44	50.44	50.44
Caldas 65	Bernesga Mb.	56.72	51.16	56.45	164.33	107.61
Caldas 66	Bernesga Mb.	< D.L.	< D.L.	54.86	54.86	54.86
Caldas 67	Bernesga Mb.	55.96	78.43	60.16	194.55	138.59
Caldas 68	Bernesga Mb.	88.56	69.63	64.09	222.27	133.71
Caldas 69	Bernesga Mb.	< D.L.	< D.L.	47.02	47.02	47.02
Caldas 70	Bernesga Mb.	< D.L.	< D.L.	52.53	52.53	52.53
Caldas 71	Bernesga Mb.	76.20	< D.L.	59.42	135.62	59.42
Caldas 72	Bernesga Mb.	< D.L.	31.84	59.45	91.29	91.29
Caldas 73	Bernesga Mb.	72.32	36.95	60.09	169.35	97.03
Caldas 74	Bernesga Mb.	89.12	27.20	63.68	180.00	90.88
Caldas 75	Bernesga Mb.	71.68	39.25	57.15	168.08	96.40

Sample	Formation	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al Calibrated	Al2O3*5	10Al2O3
Caldas 51	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	34.35	26.55	159060.19	150.27	300.54
Caldas 52	Bernesga Mb.	80.85	161.70	2.74	2.60	3.48	37.28	5.78	176417.95	166.67	333.34
Caldas 53	Bernesga Mb.	< D.L.	< D.L.	-3.81	< D.L.	< D.L.	34.79	7.06	154351.06	145.82	291.64
Caldas 54	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	35.21	12.53	160192.68	151.34	302.68
Caldas 55	Bernesga Mb.	< D.L.	< D.L.	-3.75	< D.L.	< D.L.	37.18	6.94	169363.54	160.00	320.01
Caldas 56	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	28.08	10.94	129607.37	122.44	244.89
Caldas 57	Bernesga Mb.	84.50	169.00	3.49	2.77	3.71	34.03	5.65	154369.43	145.84	291.68
Caldas 58	Bernesga Mb.	< D.L.	< D.L.	-1.72	< D.L.	< D.L.	34.49	8.39	160178.07	151.33	302.65
Caldas 59	Bernesga Mb.	< D.L.	< D.L.	-4.30	< D.L.	< D.L.	33.90	5.85	156094.84	147.47	294.94
Caldas 60	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	34.31	13.37	158683.41	149.91	299.83
Caldas 61	Bernesga Mb.	< D.L.	< D.L.	-4.42	< D.L.	< D.L.	35.08	6.20	157968.78	149.24	298.48
Caldas 62	Bernesga Mb.	94.30	188.60	6.44	3.21	4.30	32.27	7.03	143886.04	135.93	271.87
Caldas 63	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	34.90	20.54	163058.54	154.05	308.09
Caldas 64	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	36.09	14.54	168197.01	158.90	317.80
Caldas 65	Bernesga Mb.	70.90	141.80	2.83	2.08	2.78	34.60	6.64	157803.11	149.08	298.16
Caldas 66	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	36.31	12.08	167514.57	158.26	316.51
Caldas 67	Bernesga Mb.	69.95	139.90	0.46	2.02	2.71	35.85	4.87	162847.79	153.85	307.70
Caldas 68	Bernesga Mb.	110.70	221.40	5.27	3.84	5.15	32.72	5.13	144587.49	136.60	273.19
Caldas 69	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	37.14	25.49	175233.61	165.55	331.10
Caldas 70	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	37.09	14.45	172637.62	163.10	326.19
Caldas 71	Bernesga Mb.	95.25	190.50	9.53	3.25	4.35	39.07	10.61	180184.08	170.23	340.45
Caldas 72	Bernesga Mb.	< D.L.	< D.L.	-2.65	< D.L.	< D.L.	34.41	7.60	155521.95	146.93	293.85
Caldas 73	Bernesga Mb.	90.40	180.80	5.96	3.04	4.07	37.93	7.15	173898.15	164.29	328.57
Caldas 74	Bernesga Mb.	111.40	222.80	8.87	3.87	5.18	38.70	8.32	176426.40	166.68	333.35
Caldas 75	Bernesga Mb.	89.60	179.20	5.69	3.00	4.03	36.17	6.23	165819.13	156.65	313.31

Sample	Formation	15Al2O3	Al2O3/10	K2O *5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	200TiO2	300TiO2	K2O/Al2O3
Caldas 51	Bernesga Mb.	450.81	3.01	15.73	0.47	< D.L.	145959.29	18.57	23.89	185.67	278.50	0.10
Caldas 52	Bernesga Mb.	500.00	3.33	14.37	< D.L.	9.81	-10524.27	3.36	4.32	249.47	374.21	0.09
Caldas 53	Bernesga Mb.	437.46	2.92	20.94	< D.L.	10.34	3540.01	4.21	5.42	237.28	355.93	0.14
Caldas 54	Bernesga Mb.	454.02	3.03	18.26	0.71	10.30	40404.84	8.05	10.35	222.78	334.16	0.12
Caldas 55	Bernesga Mb.	480.01	3.20	19.17	0.41	10.80	-1349.06	4.10	5.27	239.48	359.22	0.12
Caldas 56	Bernesga Mb.	367.33	2.45	12.94	0.39	< D.L.	44113.50	7.65	9.84	182.59	273.89	0.11
Caldas 57	Bernesga Mb.	437.51	2.92	17.94	< D.L.	10.84	-6636.03	3.20	4.11	243.35	365.03	0.12
Caldas 58	Bernesga Mb.	453.98	3.03	15.43	< D.L.	10.52	11251.17	5.13	6.60	213.28	319.91	0.10
Caldas 59	Bernesga Mb.	442.40	2.95	16.17	< D.L.	9.77	-4968.86	3.41	4.38	231.73	347.60	0.11
Caldas 60	Bernesga Mb.	449.74	3.00	15.84	0.66	12.66	44997.07	8.47	10.89	206.53	309.80	0.11
Caldas 61	Bernesga Mb.	447.71	2.98	19.39	< D.L.	11.75	-4376.15	3.51	4.52	237.49	356.24	0.13
Caldas 62	Bernesga Mb.	407.80	2.72	18.80	< D.L.	10.42	5909.33	4.19	5.39	221.72	332.58	0.14
Caldas 63	Bernesga Mb.	462.14	3.08	14.91	0.47	< D.L.	102933.27	14.37	18.49	194.14	291.21	0.10
Caldas 64	Bernesga Mb.	476.70	3.18	15.76	< D.L.	< D.L.	59632.61	10.17	13.08	204.89	307.33	0.10
Caldas 65	Bernesga Mb.	447.24	2.98	17.64	< D.L.	10.38	-280.76	3.92	5.04	230.13	345.19	0.12
Caldas 66	Bernesga Mb.	474.77	3.17	17.14	< D.L.	9.99	35593.17	7.75	9.97	219.58	329.37	0.11
Caldas 67	Bernesga Mb.	461.54	3.08	18.80	< D.L.	10.95	-14292.29	2.64	3.40	232.67	349.00	0.12
Caldas 68	Bernesga Mb.	409.79	2.73	20.03	< D.L.	10.56	-7629.44	2.85	3.67	235.25	352.87	0.15
Caldas 69	Bernesga Mb.	496.65	3.31	14.69	0.46	< D.L.	134509.97	17.83	22.94	173.33	260.00	0.09
Caldas 70	Bernesga Mb.	489.29	3.26	16.42	0.41	< D.L.	57926.14	10.11	13.00	200.98	301.47	0.10
Caldas 71	Bernesga Mb.	510.68	3.40	18.57	< D.L.	12.33	20527.53	6.56	8.44	223.05	334.57	0.11
Caldas 72	Bernesga Mb.	440.78	2.94	18.58	< D.L.	9.82	7426.42	4.63	5.96	220.03	330.04	0.13
Caldas 73	Bernesga Mb.	492.86	3.29	18.78	< D.L.	10.42	-750.63	4.27	5.50	240.40	360.60	0.11
Caldas 74	Bernesga Mb.	500.03	3.33	19.90	< D.L.	10.07	7069.76	5.12	6.58	234.82	352.23	0.12
Caldas 75	Bernesga Mb.	469.96	3.13	17.86	< D.L.	< D.L.	2120.05	4.36	5.61	231.69	347.54	0.11

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
Caldas 51	Bernesga Mb.	-0.98	< D.L.	1.42	0.09	0.37	2.73	-0.44	21.64
Caldas 52	Bernesga Mb.	-1.06	0.03	0.68	0.18	0.37	2.67	-0.43	30.95
Caldas 53	Bernesga Mb.	-0.84	0.04	0.78	0.22	0.34	2.91	-0.46	20.24
Caldas 54	Bernesga Mb.	-0.92	0.03	1.06	0.17	0.35	2.83	-0.45	18.38
Caldas 55	Bernesga Mb.	-0.92	0.03	0.77	0.19	0.35	2.85	-0.46	20.65
Caldas 56	Bernesga Mb.	-0.98	< D.L.	1.04	0.33	0.39	2.59	-0.41	20.52
Caldas 57	Bernesga Mb.	-0.91	0.04	0.66	0.24	0.36	2.81	-0.45	22.88
Caldas 58	Bernesga Mb.	-0.99	0.03	0.87	0.22	0.37	2.72	-0.43	26.65
Caldas 59	Bernesga Mb.	-0.96	0.03	0.69	0.28	0.36	2.75	-0.44	25.06
Caldas 60	Bernesga Mb.	-0.98	0.04	1.08	0.18	0.37	2.73	-0.44	20.15
Caldas 61	Bernesga Mb.	-0.89	0.04	0.70	0.21	0.35	2.86	-0.46	22.03
Caldas 62	Bernesga Mb.	-0.86	0.04	0.78	0.23	0.35	2.84	-0.45	20.56
Caldas 63	Bernesga Mb.	-1.01	< D.L.	1.31	0.14	0.37	2.69	-0.43	22.97
Caldas 64	Bernesga Mb.	-1.00	< D.L.	1.16	0.16	0.37	2.73	-0.44	27.53
Caldas 65	Bernesga Mb.	-0.93	0.03	0.75	0.21	0.36	2.80	-0.45	23.70
Caldas 66	Bernesga Mb.	-0.97	0.03	1.04	0.16	0.36	2.79	-0.45	25.72
Caldas 67	Bernesga Mb.	-0.91	0.04	0.58	0.24	0.35	2.84	-0.45	23.26
Caldas 68	Bernesga Mb.	-0.83	0.04	0.61	0.24	0.35	2.88	-0.46	19.65
Caldas 69	Bernesga Mb.	-1.05	< D.L.	1.41	0.10	0.37	2.68	-0.43	24.99
Caldas 70	Bernesga Mb.	-1.00	< D.L.	1.16	0.16	0.36	2.76	-0.44	23.34
Caldas 71	Bernesga Mb.	-0.96	0.04	0.97	0.17	0.35	2.84	-0.45	26.00
Caldas 72	Bernesga Mb.	-0.90	0.03	0.82	0.22	0.35	2.84	-0.45	22.43
Caldas 73	Bernesga Mb.	-0.94	0.03	0.79	0.18	0.35	2.84	-0.45	24.87
Caldas 74	Bernesga Mb.	-0.92	0.03	0.86	0.17	0.35	2.88	-0.46	24.09
Caldas 75	Bernesga Mb.	-0.94	< D.L.	0.79	0.21	0.36	2.81	-0.45	24.66

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
Caldas 51	Bernesga Mb.	1.39	4.53	26.55	1.23	0.09	0.82	0.88	33.71	0.00
Caldas 52	Bernesga Mb.	1.08	3.95	5.78	1.51	0.18	0.66	0.14	41.30	0.01
Caldas 53	Bernesga Mb.	1.44	5.63	7.06	1.66	0.22	0.60	0.21	42.02	0.01
Caldas 54	Bernesga Mb.	1.65	5.30	12.53	1.47	0.17	0.68	0.38	37.61	0.00
Caldas 55	Bernesga Mb.	1.55	5.38	6.94	1.54	0.19	0.65	0.18	41.84	0.01
Caldas 56	Bernesga Mb.	1.19	3.78	10.94	2.15	0.33	0.47	0.45	34.53	0.00
Caldas 57	Bernesga Mb.	1.27	4.86	5.65	1.74	0.24	0.58	0.16	44.33	0.01
Caldas 58	Bernesga Mb.	1.14	4.22	8.39	1.66	0.22	0.60	0.24	41.64	0.01
Caldas 59	Bernesga Mb.	1.18	4.41	5.85	1.89	0.28	0.53	0.17	41.74	0.01
Caldas 60	Bernesga Mb.	1.49	4.66	13.37	1.52	0.18	0.66	0.40	38.20	0.00
Caldas 61	Bernesga Mb.	1.36	5.23	6.20	1.62	0.21	0.62	0.17	44.62	0.01
Caldas 62	Bernesga Mb.	1.32	5.08	7.03	1.71	0.23	0.59	0.22	43.19	0.01
Caldas 63	Bernesga Mb.	1.34	4.32	20.54	1.37	0.14	0.73	0.67	36.79	0.00
Caldas 64	Bernesga Mb.	1.15	4.31	14.54	1.46	0.16	0.69	0.46	38.51	0.00
Caldas 65	Bernesga Mb.	1.26	4.79	6.64	1.63	0.21	0.61	0.19	44.78	0.01
Caldas 66	Bernesga Mb.	1.23	4.66	12.08	1.46	0.16	0.68	0.35	40.83	0.00
Caldas 67	Bernesga Mb.	1.32	5.08	4.87	1.72	0.24	0.58	0.12	47.73	0.01
Caldas 68	Bernesga Mb.	1.39	5.40	5.13	1.73	0.24	0.58	0.15	47.16	0.01
Caldas 69	Bernesga Mb.	1.33	4.26	25.49	1.25	0.10	0.80	0.77	34.64	0.00
Caldas 70	Bernesga Mb.	1.40	4.68	14.45	1.43	0.16	0.70	0.44	38.57	0.00
Caldas 71	Bernesga Mb.	1.31	5.02	10.61	1.47	0.17	0.68	0.28	40.20	0.00
Caldas 72	Bernesga Mb.	1.31	5.03	7.60	1.65	0.22	0.61	0.23	43.10	0.01
Caldas 73	Bernesga Mb.	1.32	5.08	7.15	1.50	0.18	0.67	0.19	44.51	0.01
Caldas 74	Bernesga Mb.	1.38	5.36	8.32	1.49	0.17	0.67	0.22	41.72	0.01
Caldas 75	Bernesga Mb.	1.27	4.84	6.23	1.62	0.21	0.62	0.20	42.23	0.01

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Zr/Sc	Cr/Th	Th/Sc
Caldas 51	Bernesga Mb.	32.37	0.07	392.16	0.32	262.35	1.27	0.73	1.38	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 52	Bernesga Mb.	26.72	0.06	384.83	< D.L.	175.35	0.17	1.17	1.83	< D.L.	9.53	5.35	5.53	8.63	0.70
Caldas 53	Bernesga Mb.	24.58	0.07	395.38	0.70	202.18	0.36	0.70	1.25	< D.L.	7.73	3.81	4.11	10.79	0.40
Caldas 54	Bernesga Mb.	27.17	0.06	381.75	0.89	250.92	0.73	0.80	1.40	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 55	Bernesga Mb.	26.73	0.07	389.71	1.05	192.60	0.38	0.76	1.17	< D.L.	< D.L.	3.75	< D.L.	10.79	< D.L.
Caldas 56	Bernesga Mb.	26.82	0.05	310.41	1.08	197.22	0.87	0.76	1.65	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 57	Bernesga Mb.	23.97	0.07	401.95	< D.L.	208.84	0.36	0.83	1.34	< D.L.	< D.L.	4.96	< D.L.	8.91	< D.L.
Caldas 58	Bernesga Mb.	28.38	0.07	413.87	1.51	202.04	0.59	0.80	1.32	< D.L.	< D.L.	1.72	< D.L.	19.80	< D.L.
Caldas 59	Bernesga Mb.	25.45	0.06	370.15	< D.L.	161.07	0.31	0.80	1.28	< D.L.	< D.L.	4.30	< D.L.	8.31	< D.L.
Caldas 60	Bernesga Mb.	29.03	0.07	393.02	0.85	248.25	0.78	0.86	1.52	< D.L.	3.64	< D.L.	1.98	< D.L.	< D.L.
Caldas 61	Bernesga Mb.	25.14	0.07	393.31	< D.L.	230.27	0.52	0.75	1.12	< D.L.	9.70	4.42	5.16	9.73	0.66
Caldas 62	Bernesga Mb.	24.52	0.06	384.47	0.70	193.87	0.41	0.67	1.27	< D.L.	< D.L.	2.99	< D.L.	12.20	< D.L.
Caldas 63	Bernesga Mb.	31.74	0.06	384.81	0.62	228.52	0.75	0.92	1.56	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 64	Bernesga Mb.	31.02	0.07	391.35	0.46	174.32	0.46	0.73	1.53	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 65	Bernesga Mb.	25.91	0.06	368.53	1.17	219.35	0.48	0.76	1.32	< D.L.	10.66	4.26	5.59	9.33	0.65
Caldas 66	Bernesga Mb.	28.83	0.07	432.60	0.85	193.85	0.55	0.67	1.30	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 67	Bernesga Mb.	26.45	0.06	372.89	< D.L.	205.46	0.32	0.76	1.22	< D.L.	< D.L.	6.54	< D.L.	6.94	< D.L.
Caldas 68	Bernesga Mb.	23.23	0.06	368.26	< D.L.	213.60	0.39	0.69	1.11	< D.L.	< D.L.	5.80	< D.L.	7.52	< D.L.
Caldas 69	Bernesga Mb.	38.20	0.07	391.26	0.17	210.22	0.73	0.84	1.69	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 70	Bernesga Mb.	32.46	0.07	391.42	0.56	184.57	0.39	0.85	1.55	40.58	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 71	Bernesga Mb.	30.53	0.06	374.49	0.46	200.94	0.49	0.67	1.37	< D.L.	7.49	< D.L.	3.81	< D.L.	< D.L.
Caldas 72	Bernesga Mb.	26.71	0.06	364.47	0.66	223.52	0.53	0.72	1.28	< D.L.	8.27	2.65	4.11	14.42	0.32
Caldas 73	Bernesga Mb.	27.34	0.07	391.91	0.90	209.23	0.37	0.76	1.34	< D.L.	10.48	3.08	5.10	13.74	0.43
Caldas 74	Bernesga Mb.	28.39	0.07	400.03	0.49	190.83	0.38	0.69	1.20	< D.L.	< D.L.	2.27	< D.L.	16.79	< D.L.
Caldas 75	Bernesga Mb.	27.05	0.06	388.21	1.33	188.49	0.38	0.76	1.30	< D.L.	< D.L.	3.27	< D.L.	11.62	< D.L.

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
Caldas 51	Bernesga Mb.	0.71	1.41	0.01	5.29	0.97	8.05	< D.L.	0.53	1.90
Caldas 52	Bernesga Mb.	1.06	0.94	0.02	6.48	0.91	1.40	0.38	0.64	1.57
Caldas 53	Bernesga Mb.	0.66	1.51	0.02	6.50	0.95	2.46	< D.L.	0.56	1.78
Caldas 54	Bernesga Mb.	0.71	1.42	0.01	5.55	0.89	4.75	< D.L.	0.57	1.76
Caldas 55	Bernesga Mb.	0.68	1.48	0.02	5.89	0.89	2.60	< D.L.	0.65	1.55
Caldas 56	Bernesga Mb.	1.37	0.73	0.02	6.93	1.79	6.42	< D.L.	0.46	2.17
Caldas 57	Bernesga Mb.	0.74	1.36	0.02	6.45	0.88	6.58	< D.L.	0.62	1.60
Caldas 58	Bernesga Mb.	0.73	1.37	0.01	6.07	0.92	4.55	< D.L.	0.60	1.67
Caldas 59	Bernesga Mb.	1.05	0.95	0.02	7.58	1.33	2.15	< D.L.	0.62	1.61
Caldas 60	Bernesga Mb.	0.83	1.21	0.02	6.36	0.96	5.04	< D.L.	0.57	1.77
Caldas 61	Bernesga Mb.	0.60	1.68	0.01	5.69	0.80	1.94	< D.L.	0.67	1.50
Caldas 62	Bernesga Mb.	0.72	1.40	0.02	6.72	1.06	2.21	< D.L.	0.53	1.88
Caldas 63	Bernesga Mb.	0.84	1.19	0.02	6.08	0.91	8.55	< D.L.	0.59	1.69
Caldas 64	Bernesga Mb.	0.86	1.16	0.02	6.65	1.18	5.82	< D.L.	0.48	2.10
Caldas 65	Bernesga Mb.	0.69	1.45	0.02	5.84	0.92	2.76	< D.L.	0.57	1.75
Caldas 66	Bernesga Mb.	0.71	1.42	0.02	6.49	1.05	6.74	< D.L.	0.51	1.95
Caldas 67	Bernesga Mb.	0.67	1.49	0.02	6.42	0.88	1.30	< D.L.	0.62	1.61
Caldas 68	Bernesga Mb.	0.65	1.54	0.02	6.39	0.93	1.34	< D.L.	0.62	1.60
Caldas 69	Bernesga Mb.	0.80	1.26	0.02	6.11	0.95	7.73	< D.L.	0.49	2.02
Caldas 70	Bernesga Mb.	0.81	1.23	0.02	6.68	0.96	5.10	< D.L.	0.55	1.82
Caldas 71	Bernesga Mb.	0.70	1.43	0.02	5.83	1.04	6.70	< D.L.	0.49	2.04
Caldas 72	Bernesga Mb.	0.63	1.58	0.02	5.61	0.88	2.99	< D.L.	0.56	1.78
Caldas 73	Bernesga Mb.	0.65	1.54	0.02	5.91	0.86	3.85	< D.L.	0.57	1.76
Caldas 74	Bernesga Mb.	0.65	1.55	0.02	6.11	0.94	2.89	< D.L.	0.57	1.75
Caldas 75	Bernesga Mb.	0.72	1.39	0.02	6.05	0.95	2.62	< D.L.	0.58	1.72

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
Caldas 51	Bernesga Mb.	3.37	< D.L.	9.21	5.68	< D.L.	1.79	11.65	4.85
Caldas 52	Bernesga Mb.	0.89	0.46	12.31	< D.L.	< D.L.	2.57	2.09	7.85
Caldas 53	Bernesga Mb.	1.40	< D.L.	14.25	2.24	< D.L.	1.57	5.11	7.99
Caldas 54	Bernesga Mb.	2.45	< D.L.	12.02	3.86	< D.L.	3.42	8.83	6.83
Caldas 55	Bernesga Mb.	1.26	< D.L.	11.12	2.11	< D.L.	2.21	4.20	7.17
Caldas 56	Bernesga Mb.	2.89	< D.L.	11.41	3.54	< D.L.	3.83	9.96	5.26
Caldas 57	Bernesga Mb.	0.90	0.55	13.76	< D.L.	< D.L.	1.70	4.93	8.60
Caldas 58	Bernesga Mb.	1.40	< D.L.	10.62	2.99	< D.L.	4.53	6.24	6.38
Caldas 59	Bernesga Mb.	0.79	< D.L.	11.07	< D.L.	< D.L.	1.78	3.44	6.88
Caldas 60	Bernesga Mb.	2.33	< D.L.	11.60	5.21	< D.L.	4.44	9.07	6.57
Caldas 61	Bernesga Mb.	0.83	< D.L.	12.25	< D.L.	< D.L.	2.15	6.40	8.17
Caldas 62	Bernesga Mb.	1.42	0.66	14.32	2.48	< D.L.	1.73	5.87	7.60
Caldas 63	Bernesga Mb.	3.51	< D.L.	10.47	5.56	< D.L.	3.44	7.80	6.21
Caldas 64	Bernesga Mb.	2.85	< D.L.	11.04	5.21	< D.L.	2.41	5.12	5.25
Caldas 65	Bernesga Mb.	1.17	0.45	13.21	2.40	< D.L.	2.81	6.34	7.56
Caldas 66	Bernesga Mb.	2.13	< D.L.	10.90	4.60	< D.L.	3.91	5.98	5.59
Caldas 67	Bernesga Mb.	0.51	0.43	13.41	< D.L.	2.21	0.72	4.26	8.35
Caldas 68	Bernesga Mb.	0.64	0.77	14.52	< D.L.	3.26	< D.L.	5.71	9.06
Caldas 69	Bernesga Mb.	3.05	< D.L.	9.82	18.03	< D.L.	3.13	7.14	4.86
Caldas 70	Bernesga Mb.	2.71	< D.L.	11.35	9.37	< D.L.	5.23	4.46	6.23
Caldas 71	Bernesga Mb.	1.76	0.53	11.35	5.01	< D.L.	2.29	5.60	5.55
Caldas 72	Bernesga Mb.	1.50	< D.L.	13.15	3.35	< D.L.	2.19	6.99	7.38
Caldas 73	Bernesga Mb.	1.20	0.52	12.85	2.57	< D.L.	2.32	4.73	7.30
Caldas 74	Bernesga Mb.	1.72	0.63	11.29	3.48	< D.L.	1.70	4.35	6.47
Caldas 75	Bernesga Mb.	1.44	0.54	11.84	2.21	< D.L.	2.93	4.49	6.88

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
Caldas 51	Bernesga Mb.	< D.L.	10.60	56.89	53.68	4.72	0.44	38.88	< D.L.
Caldas 52	Bernesga Mb.	< D.L.	10.31	28.36	9.42	7.14	0.86	19.38	< D.L.
Caldas 53	Bernesga Mb.	< D.L.	11.54	29.80	28.06	7.57	0.74	20.36	< D.L.
Caldas 54	Bernesga Mb.	< D.L.	10.86	43.21	40.76	6.06	0.58	29.53	< D.L.
Caldas 55	Bernesga Mb.	< D.L.	10.59	30.36	24.66	6.41	0.73	20.75	< D.L.
Caldas 56	Bernesga Mb.	< D.L.	12.99	51.52	44.25	9.43	0.53	35.21	< D.L.
Caldas 57	Bernesga Mb.	< D.L.	11.74	29.12	67.77	7.58	0.74	19.90	< D.L.
Caldas 58	Bernesga Mb.	< D.L.	10.98	35.03	36.47	5.86	0.63	23.94	< D.L.
Caldas 59	Bernesga Mb.	< D.L.	11.19	28.80	18.60	9.12	0.76	19.68	< D.L.
Caldas 60	Bernesga Mb.	< D.L.	10.90	53.28	38.43	6.32	0.56	36.41	< D.L.
Caldas 61	Bernesga Mb.	< D.L.	11.17	28.09	21.26	6.52	0.66	19.20	< D.L.
Caldas 62	Bernesga Mb.	< D.L.	12.31	32.17	24.99	8.07	0.71	21.98	< D.L.
Caldas 63	Bernesga Mb.	< D.L.	10.53	36.66	57.50	5.64	0.57	25.05	< D.L.
Caldas 64	Bernesga Mb.	< D.L.	10.20	32.27	42.00	6.21	0.68	22.05	< D.L.
Caldas 65	Bernesga Mb.	< D.L.	11.30	27.92	27.60	6.92	0.68	19.08	< D.L.
Caldas 66	Bernesga Mb.	< D.L.	10.43	26.65	56.34	5.90	0.65	18.22	< D.L.
Caldas 67	Bernesga Mb.	< D.L.	11.13	26.78	14.29	7.37	0.76	18.30	< D.L.
Caldas 68	Bernesga Mb.	< D.L.	12.52	30.28	17.54	8.46	0.72	20.69	< D.L.
Caldas 69	Bernesga Mb.	< D.L.	9.62	23.55	44.90	4.63	0.58	16.09	< D.L.
Caldas 70	Bernesga Mb.	0.28	9.99	26.87	37.38	5.95	0.72	18.36	0.15
Caldas 71	Bernesga Mb.	< D.L.	9.75	25.04	55.47	5.78	0.67	17.11	< D.L.
Caldas 72	Bernesga Mb.	< D.L.	11.28	28.54	30.74	6.53	0.65	19.50	< D.L.
Caldas 73	Bernesga Mb.	< D.L.	10.24	25.62	36.98	6.25	0.73	17.51	< D.L.
Caldas 74	Bernesga Mb.	< D.L.	10.05	25.96	27.17	6.09	0.72	17.74	< D.L.
Caldas 75	Bernesga Mb.	< D.L.	10.65	26.89	23.87	6.53	0.73	18.37	< D.L.

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
Caldas 51	Bernesga Mb.	< D.L.	< D.L.	1.07	< D.L.	< D.L.	8.44	0.93	5.36	0.01	0.05	0.46
Caldas 52	Bernesga Mb.	1.98	0.50	1.35	15.58	< D.L.	1.67	0.22	1.58	0.01	< D.L.	< D.L.
Caldas 53	Bernesga Mb.	< D.L.	< D.L.	1.65	< D.L.	< D.L.	1.44	0.16	2.16	0.01	< D.L.	< D.L.
Caldas 54	Bernesga Mb.	< D.L.	< D.L.	1.35	< D.L.	< D.L.	3.15	0.50	3.93	0.01	< D.L.	< D.L.
Caldas 55	Bernesga Mb.	< D.L.	< D.L.	1.50	< D.L.	< D.L.	1.53	0.18	2.13	0.01	< D.L.	< D.L.
Caldas 56	Bernesga Mb.	< D.L.	< D.L.	1.26	< D.L.	< D.L.	4.23	0.63	3.75	0.01	< D.L.	< D.L.
Caldas 57	Bernesga Mb.	1.76	0.57	1.52	13.84	< D.L.	1.27	0.11	1.40	0.01	0.07	0.73
Caldas 58	Bernesga Mb.	< D.L.	< D.L.	1.26	< D.L.	< D.L.	2.38	0.38	2.25	0.01	0.04	0.43
Caldas 59	Bernesga Mb.	< D.L.	< D.L.	1.59	< D.L.	< D.L.	1.51	0.18	1.23	0.01	< D.L.	< D.L.
Caldas 60	Bernesga Mb.	< D.L.	< D.L.	1.28	< D.L.	< D.L.	3.82	0.58	3.70	0.01	0.27	2.68
Caldas 61	Bernesga Mb.	< D.L.	< D.L.	1.56	< D.L.	< D.L.	1.29	0.11	1.30	0.01	0.38	3.79
Caldas 62	Bernesga Mb.	0.95	1.05	1.57	12.32	< D.L.	1.59	0.20	2.04	0.01	0.28	2.77
Caldas 63	Bernesga Mb.	< D.L.	< D.L.	1.17	< D.L.	< D.L.	6.89	0.84	5.73	0.01	0.11	1.14
Caldas 64	Bernesga Mb.	< D.L.	< D.L.	1.32	< D.L.	< D.L.	4.61	0.66	4.79	0.01	0.07	0.74
Caldas 65	Bernesga Mb.	1.80	0.55	1.50	15.41	< D.L.	1.59	0.20	1.85	0.01	0.03	0.33
Caldas 66	Bernesga Mb.	< D.L.	< D.L.	1.37	< D.L.	< D.L.	3.23	0.51	3.57	0.01	0.07	0.74
Caldas 67	Bernesga Mb.	2.80	0.36	1.65	17.17	0.19	1.00	0.00	0.83	0.01	0.27	2.73
Caldas 68	Bernesga Mb.	1.57	0.64	1.72	11.05	0.23	1.02	0.01	0.92	0.01	0.29	2.93
Caldas 69	Bernesga Mb.	< D.L.	< D.L.	1.08	< D.L.	< D.L.	8.67	0.94	5.34	0.01	0.12	1.22
Caldas 70	Bernesga Mb.	< D.L.	< D.L.	1.33	< D.L.	< D.L.	4.40	0.64	4.68	0.01	0.06	0.56
Caldas 71	Bernesga Mb.	< D.L.	< D.L.	1.44	10.92	< D.L.	2.52	0.40	3.17	0.01	0.08	0.84
Caldas 72	Bernesga Mb.	< D.L.	< D.L.	1.49	< D.L.	< D.L.	1.78	0.25	2.33	0.01	0.07	0.71
Caldas 73	Bernesga Mb.	1.02	0.98	1.55	12.02	< D.L.	1.63	0.21	2.08	0.01	0.04	0.43
Caldas 74	Bernesga Mb.	0.61	1.64	1.54	9.64	< D.L.	1.84	0.26	3.03	0.01	< D.L.	< D.L.
Caldas 75	Bernesga Mb.	1.10	0.91	1.47	12.08	< D.L.	1.74	0.24	2.39	0.01	< D.L.	< D.L.

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	V (wt%)	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
Caldas 51	Bernesga Mb.	915.19	0.07	0.09	< D.L.	0.01	5.64	7.51	331425.57	2138.28	22.09
Caldas 52	Bernesga Mb.	< D.L.	< D.L.	< D.L.	2.74	0.02	7.62	12.60	412088.65	1789.52	-28.25
Caldas 53	Bernesga Mb.	< D.L.	< D.L.	< D.L.	-3.81	0.02	7.23	11.69	380218.99	1030.47	-20.81
Caldas 54	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	0.02	6.79	9.70	368574.83	1962.10	-10.36
Caldas 55	Bernesga Mb.	< D.L.	< D.L.	< D.L.	-3.75	0.02	7.30	10.85	399591.76	1084.77	-24.44
Caldas 56	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	0.01	5.54	12.22	375628.19	1787.37	-4.89
Caldas 57	Bernesga Mb.	1454.51	0.11	0.15	3.49	0.02	7.43	11.70	391024.11	1024.67	-23.93
Caldas 58	Bernesga Mb.	867.75	0.07	0.09	-1.72	0.02	6.49	9.38	394900.57	1724.23	-19.28
Caldas 59	Bernesga Mb.	< D.L.	< D.L.	< D.L.	-4.30	0.02	7.05	14.23	417212.37	814.43	-23.66
Caldas 60	Bernesga Mb.	5360.20	0.40	0.54	< D.L.	0.02	6.29	10.02	371693.90	2143.77	-8.74
Caldas 61	Bernesga Mb.	7582.20	0.57	0.76	-4.42	0.02	7.25	10.29	383969.97	1351.50	-23.75
Caldas 62	Bernesga Mb.	5544.04	0.42	0.55	6.44	0.02	6.75	11.61	361090.09	1094.47	-18.60
Caldas 63	Bernesga Mb.	2283.73	0.17	0.23	< D.L.	0.02	5.92	9.19	360411.68	1832.47	8.36
Caldas 64	Bernesga Mb.	1482.55	0.11	0.15	< D.L.	0.02	6.23	10.44	384632.45	1265.17	-5.61
Caldas 65	Bernesga Mb.	655.08	0.05	0.07	2.83	0.02	7.02	10.92	385578.65	1443.93	-22.47
Caldas 66	Bernesga Mb.	1481.40	0.11	0.15	< D.L.	0.02	6.67	9.88	383793.40	1656.50	-12.87
Caldas 67	Bernesga Mb.	5463.89	0.41	0.55	0.46	0.02	7.11	12.01	410077.47	811.50	-27.47
Caldas 68	Bernesga Mb.	5859.65	0.44	0.59	5.27	0.02	7.18	12.23	364864.80	826.17	-22.84
Caldas 69	Bernesga Mb.	2444.54	0.18	0.24	< D.L.	0.02	5.28	8.11	368288.65	1799.50	16.30
Caldas 70	Bernesga Mb.	1118.92	0.08	0.11	< D.L.	0.02	6.13	10.28	391128.60	1673.17	-6.77
Caldas 71	Bernesga Mb.	1680.98	0.13	0.17	9.53	0.02	6.78	10.41	414839.40	1421.83	-19.28
Caldas 72	Bernesga Mb.	1429.29	0.11	0.14	-2.65	0.02	6.71	10.15	382188.17	1428.43	-19.79
Caldas 73	Bernesga Mb.	867.03	0.07	0.09	5.96	0.02	7.33	10.87	404623.20	1226.30	-24.90
Caldas 74	Bernesga Mb.	< D.L.	< D.L.	< D.L.	8.87	0.02	7.15	10.74	408830.33	1066.50	-22.86
Caldas 75	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.69	0.02	7.06	10.83	402351.09	1230.17	-22.87

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
Caldas 51	Bernesga Mb.	10.32	16.23	19.04	0.35	95.09	95.58
Caldas 52	Bernesga Mb.	-13.20	18.00	-3.53	0.79	96.58	96.87
Caldas 53	Bernesga Mb.	-9.73	15.75	-1.27	0.88	94.54	95.29
Caldas 54	Bernesga Mb.	-4.84	16.34	3.94	5.34	94.17	94.84
Caldas 55	Bernesga Mb.	-11.42	17.28	-2.14	0.84	94.79	95.38
Caldas 56	Bernesga Mb.	-2.28	13.22	4.82	-0.90	94.83	95.35
Caldas 57	Bernesga Mb.	-11.18	15.75	-2.72	0.80	95.25	95.81
Caldas 58	Bernesga Mb.	-9.01	16.34	-0.23	0.97	95.99	96.38
Caldas 59	Bernesga Mb.	-11.06	15.93	-2.50	0.82	95.71	96.16
Caldas 60	Bernesga Mb.	-4.09	16.19	4.61	-7.79	94.74	95.27
Caldas 61	Bernesga Mb.	-11.10	16.12	-2.44	0.82	95.04	95.66
Caldas 62	Bernesga Mb.	-8.69	14.68	-0.81	0.91	94.66	95.36
Caldas 63	Bernesga Mb.	3.91	16.64	12.84	0.23	95.40	95.83
Caldas 64	Bernesga Mb.	-2.62	17.16	6.59	-0.66	96.12	96.50
Caldas 65	Bernesga Mb.	-10.50	16.10	-1.85	0.85	95.43	95.95
Caldas 66	Bernesga Mb.	-6.02	17.09	3.16	2.11	95.82	96.26
Caldas 67	Bernesga Mb.	-12.84	16.62	-3.92	0.77	95.33	95.88
Caldas 68	Bernesga Mb.	-10.68	14.75	-2.75	0.80	94.37	95.16
Caldas 69	Bernesga Mb.	7.62	17.88	17.22	0.31	95.79	96.15
Caldas 70	Bernesga Mb.	-3.16	17.61	6.30	-1.01	95.45	95.89
Caldas 71	Bernesga Mb.	-9.01	18.38	0.86	1.11	95.86	96.30
Caldas 72	Bernesga Mb.	-9.25	15.87	-0.73	0.93	95.14	95.73
Caldas 73	Bernesga Mb.	-11.63	17.74	-2.11	0.85	95.66	96.13
Caldas 74	Bernesga Mb.	-10.68	18.00	-1.02	0.91	95.50	96.02
Caldas 75	Bernesga Mb.	-10.69	16.92	-1.60	0.87	95.62	96.10

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
Caldas 51	Bernesga Mb.	86.89	24.58	-6.00	24.61
Caldas 52	Bernesga Mb.	89.40	8.15	-1.73	8.19
Caldas 53	Bernesga Mb.	83.82	5.16	-0.38	5.19
Caldas 54	Bernesga Mb.	85.10	10.93	-2.53	10.96
Caldas 55	Bernesga Mb.	85.60	7.18	-0.74	7.21
Caldas 56	Bernesga Mb.	86.62	9.94	-3.35	9.97
Caldas 57	Bernesga Mb.	85.71	4.58	-0.99	4.61
Caldas 58	Bernesga Mb.	87.76	8.20	-2.41	8.23
Caldas 59	Bernesga Mb.	86.99	5.65	-1.49	5.68
Caldas 60	Bernesga Mb.	86.56	11.51	-3.76	11.54
Caldas 61	Bernesga Mb.	85.08	4.93	-0.73	4.97
Caldas 62	Bernesga Mb.	84.25	4.52	-1.22	4.55
Caldas 63	Bernesga Mb.	87.70	20.58	-4.68	20.60
Caldas 64	Bernesga Mb.	88.07	16.17	-2.82	16.20
Caldas 65	Bernesga Mb.	86.17	6.00	-1.27	6.04
Caldas 66	Bernesga Mb.	87.17	11.54	-2.65	11.57
Caldas 67	Bernesga Mb.	85.82	4.84	-0.45	4.87
Caldas 68	Bernesga Mb.	83.51	2.74	-0.34	2.77
Caldas 69	Bernesga Mb.	88.59	25.96	-5.87	25.98
Caldas 70	Bernesga Mb.	87.45	16.64	-2.55	16.67
Caldas 71	Bernesga Mb.	87.14	11.01	-1.87	11.04
Caldas 72	Bernesga Mb.	85.39	6.49	-1.23	6.52
Caldas 73	Bernesga Mb.	86.62	7.89	-0.82	7.93
Caldas 74	Bernesga Mb.	86.14	8.96	-0.71	8.99
Caldas 75	Bernesga Mb.	86.61	8.90	-0.07	8.93

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
Caldas 51	Bernesga Mb.	-4.69	3.49	-81.16	0.53
Caldas 52	Bernesga Mb.	-0.61	4.55	-43.01	0.87
Caldas 53	Bernesga Mb.	1.12	4.81	-44.93	0.83
Caldas 54	Bernesga Mb.	-1.03	4.51	-54.27	0.72
Caldas 55	Bernesga Mb.	0.75	4.76	-45.93	0.84
Caldas 56	Bernesga Mb.	-2.23	4.00	-52.68	0.69
Caldas 57	Bernesga Mb.	0.34	4.71	-41.77	0.86
Caldas 58	Bernesga Mb.	-1.23	4.53	-47.05	0.80
Caldas 59	Bernesga Mb.	-0.27	4.43	-44.29	0.86
Caldas 60	Bernesga Mb.	-2.41	4.38	-54.72	0.71
Caldas 61	Bernesga Mb.	0.69	4.87	-42.59	0.85
Caldas 62	Bernesga Mb.	0.16	4.89	-42.38	0.82
Caldas 63	Bernesga Mb.	-3.42	3.79	-71.51	0.60
Caldas 64	Bernesga Mb.	-1.62	4.05	-61.75	0.69
Caldas 65	Bernesga Mb.	0.04	4.77	-43.44	0.84
Caldas 66	Bernesga Mb.	-1.36	4.48	-54.27	0.74
Caldas 67	Bernesga Mb.	0.93	4.77	-42.40	0.89
Caldas 68	Bernesga Mb.	1.11	5.00	-39.23	0.87
Caldas 69	Bernesga Mb.	-4.62	3.62	-82.42	0.56
Caldas 70	Bernesga Mb.	-1.21	4.16	-62.70	0.69
Caldas 71	Bernesga Mb.	-0.51	4.52	-54.07	0.78
Caldas 72	Bernesga Mb.	0.14	4.76	-45.65	0.81
Caldas 73	Bernesga Mb.	0.56	4.71	-46.63	0.84
Caldas 74	Bernesga Mb.	0.73	4.66	-49.96	0.82
Caldas 75	Bernesga Mb.	1.26	4.50	-47.26	0.83

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
Caldas 51	Bernesga Mb.	28.60	1.07	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 52	Bernesga Mb.	3.85	0.33	4.00	4.00	1.00	< D.L.	9.00
Caldas 53	Bernesga Mb.	5.08	0.48	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 54	Bernesga Mb.	10.33	0.63	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 55	Bernesga Mb.	4.89	0.42	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 56	Bernesga Mb.	11.98	0.64	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 57	Bernesga Mb.	3.76	0.40	4.00	4.00	1.00	< D.L.	9.00
Caldas 58	Bernesga Mb.	6.88	0.45	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 59	Bernesga Mb.	4.20	0.39	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 60	Bernesga Mb.	11.72	0.64	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 61	Bernesga Mb.	4.23	0.42	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 62	Bernesga Mb.	5.40	0.49	4.00	4.00	1.00	< D.L.	9.00
Caldas 63	Bernesga Mb.	21.16	0.84	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 64	Bernesga Mb.	14.19	0.63	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 65	Bernesga Mb.	4.87	0.42	4.00	4.00	1.00	< D.L.	9.00
Caldas 66	Bernesga Mb.	10.09	0.57	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 67	Bernesga Mb.	3.25	0.36	4.00	4.00	1.00	< D.L.	9.00
Caldas 68	Bernesga Mb.	3.47	0.43	4.00	4.00	1.00	< D.L.	9.00
Caldas 69	Bernesga Mb.	29.42	0.93	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 70	Bernesga Mb.	14.38	0.62	1.00	< D.L.	4.00	< D.L.	< D.L.
Caldas 71	Bernesga Mb.	8.41	0.49	4.00	4.00	1.00	< D.L.	9.00
Caldas 72	Bernesga Mb.	6.02	0.47	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 73	Bernesga Mb.	5.08	0.41	4.00	4.00	1.00	< D.L.	9.00
Caldas 74	Bernesga Mb.	6.23	0.45	4.00	4.00	1.00	< D.L.	9.00
Caldas 75	Bernesga Mb.	5.38	0.39	4.00	4.00	1.00	< D.L.	9.00

2.4 Caldas 76 - 98

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
Caldas 76	Bernesga Mb.	62.11	20.77	42.14	125.02	62.91
Caldas 77	Bernesga Mb.	64.07	23.69	42.50	130.26	66.19
Caldas 78	Bernesga Mb.	60.32	40.85	45.01	146.18	85.86
Caldas 79	Bernesga Mb.	66.32	44.66	44.05	155.03	88.71
Caldas 80	Bernesga Mb.	< D.L.	< D.L.	34.40	34.40	34.40
Caldas 81	Bernesga Mb.	61.37	20.00	40.30	121.67	60.30
Caldas 82	Bernesga Mb.	< D.L.	< D.L.	41.18	41.18	41.18
Caldas 83	Bernesga Mb.	< D.L.	28.30	41.34	69.64	69.64
Caldas 84	Bernesga Mb.	85.97	< D.L.	33.93	119.90	33.93
Caldas 85	Bernesga Mb.	< D.L.	< D.L.	37.09	37.09	37.09
Caldas 86	Bernesga Mb.	< D.L.	< D.L.	37.63	37.63	37.63
Caldas 87	Bernesga Mb.	< D.L.	< D.L.	37.81	37.81	37.81
Caldas 88	Bernesga Mb.	53.82	< D.L.	37.17	91.00	37.17
Caldas 89	Bernesga Mb.	57.73	25.76	35.90	119.40	61.66
Caldas 90	Bernesga Mb.	61.05	32.32	42.66	136.02	74.98
Caldas 91	Bernesga Mb.	63.15	< D.L.	36.26	99.41	36.26
Caldas 92	Bernesga Mb.	69.27	25.45	41.37	136.10	66.82
Caldas 93	Bernesga Mb.	< D.L.	< D.L.	26.15	26.15	26.15
Caldas 94	Bernesga Mb.	51.98	17.44	38.96	108.38	56.40
Caldas 95	Bernesga Mb.	76.94	21.67	39.74	138.34	61.41
Caldas 96	Bernesga Mb.	< D.L.	36.25	40.99	77.23	77.23
Caldas 97	Bernesga Mb.	63.15	37.98	41.12	142.25	79.10
Caldas 98	Bernesga Mb.	66.97	25.26	40.47	132.69	65.72

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
Caldas 76	Bernesga Mb.	74.27	32.71	63.37	170.35	96.08
Caldas 77	Bernesga Mb.	76.61	37.31	63.92	177.84	101.22
Caldas 78	Bernesga Mb.	72.13	64.33	67.69	204.15	132.02
Caldas 79	Bernesga Mb.	79.31	70.33	66.24	215.88	136.57
Caldas 80	Bernesga Mb.	< D.L.	< D.L.	51.73	51.73	51.73
Caldas 81	Bernesga Mb.	73.39	31.49	60.60	165.48	92.09
Caldas 82	Bernesga Mb.	< D.L.	< D.L.	61.93	61.93	61.93
Caldas 83	Bernesga Mb.	< D.L.	44.57	62.16	106.74	106.74
Caldas 84	Bernesga Mb.	102.80	< D.L.	51.02	153.82	51.02
Caldas 85	Bernesga Mb.	< D.L.	< D.L.	55.77	55.77	55.77
Caldas 86	Bernesga Mb.	< D.L.	< D.L.	56.58	56.58	56.58
Caldas 87	Bernesga Mb.	< D.L.	< D.L.	56.85	56.85	56.85
Caldas 88	Bernesga Mb.	64.36	< D.L.	55.90	120.26	55.90
Caldas 89	Bernesga Mb.	69.04	40.57	53.98	163.59	94.55
Caldas 90	Bernesga Mb.	73.00	50.89	64.15	188.05	115.05
Caldas 91	Bernesga Mb.	75.52	< D.L.	54.53	130.05	54.53
Caldas 92	Bernesga Mb.	82.84	40.08	62.21	185.13	102.29
Caldas 93	Bernesga Mb.	< D.L.	< D.L.	39.33	39.33	39.33
Caldas 94	Bernesga Mb.	62.16	27.47	58.58	148.21	86.05
Caldas 95	Bernesga Mb.	92.00	34.12	59.76	185.88	93.88
Caldas 96	Bernesga Mb.	< D.L.	57.08	61.64	118.72	118.72
Caldas 97	Bernesga Mb.	75.52	59.81	61.83	197.17	121.65
Caldas 98	Bernesga Mb.	80.08	39.77	60.85	180.71	100.63

Sample	Formation	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al Calibrated	Al2O3*5	10Al2O3
Caldas 76	Bernesga Mb.	92.83	185.67	6.56	3.14	4.21	37.06	8.42	167908.13	158.63	317.26
Caldas 77	Bernesga Mb.	95.77	191.53	6.47	3.27	4.38	36.61	7.57	165260.15	156.13	312.25
Caldas 78	Bernesga Mb.	90.17	180.33	3.66	3.03	4.06	36.57	5.47	163468.98	154.43	308.87
Caldas 79	Bernesga Mb.	99.13	198.27	4.05	3.40	4.56	34.61	5.14	153704.93	145.21	290.42
Caldas 80	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	33.67	10.09	154867.67	146.31	292.62
Caldas 81	Bernesga Mb.	91.73	183.47	6.55	3.10	4.15	37.32	7.60	170456.06	161.04	322.07
Caldas 82	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	36.91	9.46	167716.87	158.45	316.89
Caldas 83	Bernesga Mb.	< D.L.	< D.L.	-3.71	< D.L.	< D.L.	37.56	7.32	171036.11	161.58	323.17
Caldas 84	Bernesga Mb.	128.50	257.00	12.85	4.43	5.94	37.53	14.53	175593.64	165.89	331.78
Caldas 85	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	36.01	8.39	165555.93	156.41	312.81
Caldas 86	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	35.88	10.93	164501.33	155.41	310.82
Caldas 87	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	37.68	11.41	173936.43	164.32	328.65
Caldas 88	Bernesga Mb.	80.45	160.90	8.05	2.58	3.45	37.28	9.48	172204.96	162.69	325.38
Caldas 89	Bernesga Mb.	86.30	172.60	5.25	2.86	3.83	32.66	6.22	148557.38	140.35	280.69
Caldas 90	Bernesga Mb.	91.25	182.50	4.88	3.08	4.12	36.10	6.48	162447.12	153.47	306.94
Caldas 91	Bernesga Mb.	94.40	188.80	9.44	3.21	4.30	34.26	13.27	156813.21	148.15	296.29
Caldas 92	Bernesga Mb.	103.55	207.10	7.02	3.58	4.79	35.45	6.56	159830.86	151.00	301.99
Caldas 93	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	36.93	14.24	177349.09	167.55	335.09
Caldas 94	Bernesga Mb.	77.70	155.40	5.48	2.44	3.27	38.19	8.43	175867.40	166.15	332.30
Caldas 95	Bernesga Mb.	115.00	230.00	8.66	3.99	5.35	36.83	7.20	168165.05	158.87	317.74
Caldas 96	Bernesga Mb.	< D.L.	< D.L.	-4.76	< D.L.	< D.L.	37.52	6.23	171044.18	161.59	323.18
Caldas 97	Bernesga Mb.	94.40	188.80	4.46	3.21	4.30	37.12	6.10	168828.29	159.50	318.99
Caldas 98	Bernesga Mb.	100.10	200.20	6.70	3.44	4.61	35.29	6.63	159600.52	150.78	301.56

Sample	Formation	15Al2O3	Al2O3/10	K2O *5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	200TiO2	300TiO2	K2O/Al2O3
Caldas 76	Bernesga Mb.	475.88	3.17	19.80	< D.L.	9.82	10040.93	5.20	6.69	247.31	370.96	0.12
Caldas 77	Bernesga Mb.	468.38	3.12	19.97	< D.L.	10.27	4476.70	4.58	5.89	229.88	344.82	0.13
Caldas 78	Bernesga Mb.	463.30	3.09	21.15	< D.L.	10.61	-10000.21	3.09	3.97	231.87	347.80	0.14
Caldas 79	Bernesga Mb.	435.63	2.90	20.70	< D.L.	10.41	-9739.12	2.87	3.69	232.00	347.99	0.14
Caldas 80	Bernesga Mb.	438.93	2.93	16.17	< D.L.	< D.L.	31873.73	7.06	9.08	191.93	287.89	0.11
Caldas 81	Bernesga Mb.	483.11	3.22	18.94	< D.L.	10.17	3458.46	4.61	5.93	229.11	343.67	0.12
Caldas 82	Bernesga Mb.	475.34	3.17	19.35	< D.L.	9.80	17410.01	5.93	7.63	225.02	337.53	0.12
Caldas 83	Bernesga Mb.	484.75	3.23	19.43	< D.L.	10.22	1281.20	4.40	5.67	231.41	347.12	0.12
Caldas 84	Bernesga Mb.	497.67	3.32	15.94	< D.L.	< D.L.	57724.01	10.16	13.07	203.43	305.14	0.10
Caldas 85	Bernesga Mb.	469.22	3.13	17.43	< D.L.	< D.L.	17268.62	5.87	7.55	224.25	336.37	0.11
Caldas 86	Bernesga Mb.	466.23	3.11	17.68	< D.L.	< D.L.	35345.79	7.65	9.84	213.03	319.55	0.11
Caldas 87	Bernesga Mb.	492.97	3.29	17.77	< D.L.	10.63	28918.53	7.24	9.31	210.99	316.48	0.11
Caldas 88	Bernesga Mb.	488.06	3.25	17.47	< D.L.	10.13	16200.68	5.93	7.62	213.98	320.97	0.11
Caldas 89	Bernesga Mb.	421.04	2.81	16.87	< D.L.	< D.L.	6377.42	4.35	5.60	216.38	324.57	0.12
Caldas 90	Bernesga Mb.	460.41	3.07	20.05	< D.L.	10.59	-2671.65	3.79	4.88	235.77	353.65	0.13
Caldas 91	Bernesga Mb.	444.44	2.96	17.04	< D.L.	< D.L.	53625.17	9.28	11.94	211.11	316.67	0.12
Caldas 92	Bernesga Mb.	452.99	3.02	19.44	< D.L.	9.81	-919.46	3.90	5.02	228.91	343.36	0.13
Caldas 93	Bernesga Mb.	502.64	3.35	12.29	0.40	< D.L.	55283.50	9.96	12.82	190.14	285.21	0.07
Caldas 94	Bernesga Mb.	498.44	3.32	18.31	< D.L.	10.70	7503.66	5.15	6.62	224.52	336.78	0.11
Caldas 95	Bernesga Mb.	476.61	3.18	18.68	< D.L.	11.04	581.67	4.26	5.48	223.91	335.87	0.12
Caldas 96	Bernesga Mb.	484.77	3.23	19.26	< D.L.	12.35	-7798.00	3.50	4.50	226.52	339.78	0.12
Caldas 97	Bernesga Mb.	478.49	3.19	19.32	< D.L.	15.38	-10310.45	3.19	4.10	231.89	347.83	0.12
Caldas 98	Bernesga Mb.	452.34	3.02	19.02	< D.L.	10.40	-786.50	3.91	5.03	227.77	341.66	0.13

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
Caldas 76	Bernesga Mb.	-0.90	0.03	0.87	0.17	0.35	2.87	-0.46	23.02
Caldas 77	Bernesga Mb.	-0.89	0.03	0.82	0.19	0.35	2.88	-0.46	22.50
Caldas 78	Bernesga Mb.	-0.86	0.03	0.64	0.24	0.34	2.91	-0.46	21.26
Caldas 79	Bernesga Mb.	-0.85	0.04	0.61	0.25	0.34	2.90	-0.46	20.34
Caldas 80	Bernesga Mb.	-0.96	< D.L.	1.00	0.22	0.36	2.75	-0.44	24.87
Caldas 81	Bernesga Mb.	-0.93	0.03	0.82	0.20	0.35	2.85	-0.45	24.21
Caldas 82	Bernesga Mb.	-0.91	0.03	0.93	0.18	0.35	2.86	-0.46	23.42
Caldas 83	Bernesga Mb.	-0.92	0.03	0.80	0.20	0.35	2.86	-0.46	23.81
Caldas 84	Bernesga Mb.	-1.02	< D.L.	1.16	0.16	0.37	2.74	-0.44	28.50
Caldas 85	Bernesga Mb.	-0.95	< D.L.	0.92	0.18	0.36	2.80	-0.45	25.10
Caldas 86	Bernesga Mb.	-0.94	< D.L.	1.04	0.18	0.36	2.81	-0.45	24.66
Caldas 87	Bernesga Mb.	-0.97	0.03	1.02	0.17	0.36	2.81	-0.45	25.97
Caldas 88	Bernesga Mb.	-0.97	0.03	0.93	0.20	0.36	2.80	-0.45	26.06
Caldas 89	Bernesga Mb.	-0.92	< D.L.	0.79	0.28	0.36	2.78	-0.44	23.09
Caldas 90	Bernesga Mb.	-0.88	0.03	0.73	0.21	0.35	2.88	-0.46	22.06
Caldas 91	Bernesga Mb.	-0.94	< D.L.	1.12	0.16	0.36	2.78	-0.44	24.19
Caldas 92	Bernesga Mb.	-0.89	0.03	0.75	0.23	0.35	2.86	-0.46	22.24
Caldas 93	Bernesga Mb.	-1.13	< D.L.	1.15	0.15	0.39	2.56	-0.41	28.84
Caldas 94	Bernesga Mb.	-0.96	0.03	0.87	0.19	0.35	2.83	-0.45	25.66
Caldas 95	Bernesga Mb.	-0.93	0.03	0.78	0.22	0.35	2.84	-0.45	24.15
Caldas 96	Bernesga Mb.	-0.92	0.04	0.70	0.21	0.35	2.86	-0.46	23.97
Caldas 97	Bernesga Mb.	-0.92	0.05	0.66	0.21	0.35	2.86	-0.46	23.60
Caldas 98	Bernesga Mb.	-0.90	0.03	0.75	0.22	0.35	2.85	-0.45	22.60

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
Caldas 76	Bernesga Mb.	1.38	5.34	8.42	1.50	0.17	0.67	0.23	44.69	0.01
Caldas 77	Bernesga Mb.	1.39	5.38	7.57	1.56	0.19	0.64	0.21	42.51	0.01
Caldas 78	Bernesga Mb.	1.45	5.68	5.47	1.75	0.24	0.57	0.14	44.16	0.01
Caldas 79	Bernesga Mb.	1.43	5.57	5.14	1.78	0.25	0.56	0.14	45.33	0.01
Caldas 80	Bernesga Mb.	1.18	4.41	10.09	1.67	0.22	0.60	0.34	40.78	0.00
Caldas 81	Bernesga Mb.	1.33	5.12	7.60	1.59	0.20	0.63	0.20	43.32	0.01
Caldas 82	Bernesga Mb.	1.35	5.22	9.46	1.53	0.18	0.65	0.27	41.16	0.01
Caldas 83	Bernesga Mb.	1.36	5.24	7.32	1.59	0.20	0.63	0.19	42.50	0.01
Caldas 84	Bernesga Mb.	1.16	4.35	14.53	1.45	0.16	0.69	0.44	38.03	0.00
Caldas 85	Bernesga Mb.	1.25	4.73	8.39	1.53	0.18	0.66	0.27	40.73	0.00
Caldas 86	Bernesga Mb.	1.26	4.80	10.93	1.51	0.18	0.66	0.35	40.17	0.00
Caldas 87	Bernesga Mb.	1.27	4.82	11.41	1.49	0.17	0.67	0.32	39.05	0.00
Caldas 88	Bernesga Mb.	1.25	4.74	9.48	1.58	0.20	0.63	0.26	39.80	0.00
Caldas 89	Bernesga Mb.	1.22	4.59	6.22	1.89	0.28	0.53	0.22	41.79	0.01
Caldas 90	Bernesga Mb.	1.39	5.40	6.48	1.63	0.21	0.62	0.18	45.52	0.01
Caldas 91	Bernesga Mb.	1.23	4.63	13.27	1.43	0.16	0.70	0.45	40.70	0.00
Caldas 92	Bernesga Mb.	1.36	5.25	6.56	1.69	0.23	0.59	0.18	44.09	0.01
Caldas 93	Bernesga Mb.	1.16	3.62	14.24	1.41	0.15	0.71	0.43	36.67	0.00
Caldas 94	Bernesga Mb.	1.30	4.96	8.43	1.56	0.19	0.64	0.22	43.07	0.01
Caldas 95	Bernesga Mb.	1.32	5.05	7.20	1.67	0.22	0.60	0.19	43.69	0.01
Caldas 96	Bernesga Mb.	1.35	5.20	6.23	1.61	0.21	0.62	0.15	46.47	0.01
Caldas 97	Bernesga Mb.	1.35	5.22	6.10	1.62	0.21	0.62	0.14	46.56	0.01
Caldas 98	Bernesga Mb.	1.33	5.14	6.63	1.64	0.22	0.61	0.19	45.46	0.01

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Zr/Sc	Cr/Th	Th/Sc
Caldas 76	Bernesga Mb.	25.66	0.06	382.07	0.46	222.00	0.47	0.67	1.23	< D.L.	< D.L.	2.73	< D.L.	14.57	< D.L.
Caldas 77	Bernesga Mb.	27.17	0.06	377.94	0.55	192.61	0.36	0.72	1.16	< D.L.	< D.L.	3.11	< D.L.	13.15	< D.L.
Caldas 78	Bernesga Mb.	26.64	0.06	354.99	0.61	173.30	0.20	0.71	1.06	< D.L.	< D.L.	5.36	< D.L.	8.25	< D.L.
Caldas 79	Bernesga Mb.	25.04	0.06	371.67	< D.L.	214.34	0.40	0.72	1.03	< D.L.	< D.L.	5.86	< D.L.	7.73	< D.L.
Caldas 80	Bernesga Mb.	30.49	0.06	380.15	0.19	194.43	0.54	0.75	1.32	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 81	Bernesga Mb.	28.11	0.06	377.59	0.80	235.26	0.60	0.69	1.24	< D.L.	< D.L.	2.62	< D.L.	14.40	< D.L.
Caldas 82	Bernesga Mb.	28.17	0.06	384.86	0.55	196.26	0.41	0.69	1.32	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 83	Bernesga Mb.	27.93	0.06	381.00	0.37	192.88	0.40	0.71	1.14	< D.L.	6.95	3.71	4.25	10.51	0.41
Caldas 84	Bernesga Mb.	32.62	0.07	415.97	0.16	189.80	0.55	0.75	1.48	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 85	Bernesga Mb.	27.90	0.06	383.06	0.44	200.38	0.41	0.83	1.44	46.66	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 86	Bernesga Mb.	29.18	0.06	368.30	0.27	209.73	0.56	0.74	1.33	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 87	Bernesga Mb.	31.15	0.07	400.56	0.32	207.31	0.60	0.73	1.28	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 88	Bernesga Mb.	30.41	0.07	402.21	0.53	204.39	0.66	0.73	1.12	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 89	Bernesga Mb.	25.94	0.06	345.29	0.27	187.84	0.58	0.68	1.12	< D.L.	< D.L.	3.38	< D.L.	9.41	< D.L.
Caldas 90	Bernesga Mb.	26.04	0.06	350.23	0.60	221.74	0.49	0.71	1.03	< D.L.	9.74	4.24	6.04	10.19	0.66
Caldas 91	Bernesga Mb.	28.07	0.06	386.82	0.25	198.22	0.55	0.74	1.25	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 92	Bernesga Mb.	26.39	0.06	364.07	0.60	192.94	0.43	0.67	1.06	< D.L.	< D.L.	3.34	< D.L.	11.46	< D.L.
Caldas 93	Bernesga Mb.	35.25	0.07	418.53	0.26	182.75	0.52	1.10	1.79	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Caldas 94	Bernesga Mb.	29.60	0.07	410.01	0.40	189.68	0.45	0.70	1.10	< D.L.	< D.L.	2.29	< D.L.	16.15	< D.L.
Caldas 95	Bernesga Mb.	28.38	0.06	375.17	0.54	207.62	0.52	0.70	1.10	< D.L.	9.07	2.84	5.75	13.37	0.43
Caldas 96	Bernesga Mb.	28.53	0.06	377.60	0.55	251.86	0.64	0.73	1.06	< D.L.	< D.L.	4.76	< D.L.	9.12	< D.L.
Caldas 97	Bernesga Mb.	27.51	0.06	358.38	0.59	253.78	0.69	0.74	0.97	< D.L.	< D.L.	4.98	< D.L.	8.91	< D.L.
Caldas 98	Bernesga Mb.	26.48	0.07	404.34	0.40	236.33	0.54	0.72	1.20	< D.L.	9.79	3.31	5.48	12.53	0.47

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
Caldas 76	Bernesga Mb.	0.67	1.49	0.02	6.11	0.99	3.26	< D.L.	0.55	1.83
Caldas 77	Bernesga Mb.	0.68	1.48	0.02	6.31	0.94	2.51	< D.L.	0.62	1.60
Caldas 78	Bernesga Mb.	0.71	1.41	0.02	6.77	1.00	1.70	< D.L.	0.67	1.49
Caldas 79	Bernesga Mb.	0.67	1.49	0.02	6.75	0.93	1.25	< D.L.	0.70	1.43
Caldas 80	Bernesga Mb.	0.73	1.37	0.02	6.37	0.97	4.19	< D.L.	0.57	1.75
Caldas 81	Bernesga Mb.	0.74	1.35	0.02	6.68	1.07	2.76	< D.L.	0.56	1.80
Caldas 82	Bernesga Mb.	0.71	1.41	0.02	6.46	1.03	3.45	< D.L.	0.53	1.90
Caldas 83	Bernesga Mb.	0.69	1.44	0.02	6.30	0.98	2.54	< D.L.	0.62	1.60
Caldas 84	Bernesga Mb.	0.84	1.19	0.02	6.95	1.11	5.21	< D.L.	0.51	1.96
Caldas 85	Bernesga Mb.	0.77	1.29	0.02	6.25	0.94	3.13	< D.L.	0.57	1.74
Caldas 86	Bernesga Mb.	0.75	1.33	0.02	6.17	1.02	4.08	< D.L.	0.55	1.80
Caldas 87	Bernesga Mb.	0.72	1.39	0.02	6.33	0.99	4.07	< D.L.	0.57	1.76
Caldas 88	Bernesga Mb.	0.77	1.29	0.02	6.76	1.07	3.58	< D.L.	0.65	1.55
Caldas 89	Bernesga Mb.	1.04	0.96	0.02	7.83	1.54	2.56	< D.L.	0.60	1.66
Caldas 90	Bernesga Mb.	0.64	1.56	0.02	5.79	0.90	1.85	< D.L.	0.69	1.45
Caldas 91	Bernesga Mb.	0.74	1.36	0.02	6.24	0.99	4.58	< D.L.	0.60	1.67
Caldas 92	Bernesga Mb.	0.71	1.42	0.02	6.42	1.05	1.64	< D.L.	0.63	1.58
Caldas 93	Bernesga Mb.	1.05	0.96	0.02	6.92	0.95	5.70	< D.L.	0.61	1.63
Caldas 94	Bernesga Mb.	0.73	1.38	0.02	6.98	1.03	3.10	< D.L.	0.64	1.57
Caldas 95	Bernesga Mb.	0.70	1.44	0.02	6.35	1.00	2.34	< D.L.	0.64	1.57
Caldas 96	Bernesga Mb.	0.62	1.61	0.02	6.19	0.86	1.77	< D.L.	0.69	1.45
Caldas 97	Bernesga Mb.	0.67	1.49	0.02	6.24	0.91	1.96	< D.L.	0.77	1.31
Caldas 98	Bernesga Mb.	0.67	1.49	0.02	6.90	0.93	2.14	< D.L.	0.60	1.67

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
Caldas 76	Bernesga Mb.	1.46	0.55	13.01	3.96	< D.L.	1.81	6.13	7.09
Caldas 77	Bernesga Mb.	1.38	0.58	11.90	5.48	< D.L.	3.00	4.23	7.42
Caldas 78	Bernesga Mb.	0.47	0.55	12.13	2.44	< D.L.	1.48	2.48	8.12
Caldas 79	Bernesga Mb.	0.55	0.65	12.63	< D.L.	2.20	1.26	5.11	8.84
Caldas 80	Bernesga Mb.	2.19	< D.L.	11.26	17.13	< D.L.	3.17	6.13	6.42
Caldas 81	Bernesga Mb.	1.32	0.54	11.96	3.38	< D.L.	2.71	7.15	6.65
Caldas 82	Bernesga Mb.	1.86	< D.L.	12.49	5.53	< D.L.	3.04	5.13	6.57
Caldas 83	Bernesga Mb.	1.22	< D.L.	10.97	4.62	< D.L.	1.73	4.43	6.85
Caldas 84	Bernesga Mb.	2.53	0.73	10.22	16.20	< D.L.	2.61	5.60	5.21
Caldas 85	Bernesga Mb.	1.77	< D.L.	12.34	5.18	< D.L.	2.26	5.02	7.09
Caldas 86	Bernesga Mb.	2.32	< D.L.	11.49	9.27	< D.L.	2.49	6.38	6.37
Caldas 87	Bernesga Mb.	2.10	< D.L.	10.21	6.89	< D.L.	2.20	6.12	5.80
Caldas 88	Bernesga Mb.	1.56	0.47	9.07	5.23	< D.L.	2.79	6.00	5.87
Caldas 89	Bernesga Mb.	1.54	0.58	10.64	7.82	< D.L.	2.10	6.22	6.42
Caldas 90	Bernesga Mb.	0.96	0.56	11.57	3.86	< D.L.	2.31	5.67	7.98
Caldas 91	Bernesga Mb.	2.72	0.60	11.01	12.67	< D.L.	3.18	6.06	6.58
Caldas 92	Bernesga Mb.	1.08	0.65	11.36	3.41	< D.L.	2.04	4.89	7.18
Caldas 93	Bernesga Mb.	2.38	< D.L.	9.10	13.24	< D.L.	3.48	4.73	5.58
Caldas 94	Bernesga Mb.	1.47	0.44	9.90	4.73	< D.L.	1.89	4.48	6.30
Caldas 95	Bernesga Mb.	1.15	0.68	10.65	4.54	< D.L.	2.44	5.57	6.78
Caldas 96	Bernesga Mb.	0.80	< D.L.	11.04	3.27	< D.L.	1.78	7.12	7.61
Caldas 97	Bernesga Mb.	0.68	0.56	10.31	3.34	1.93	1.99	7.14	7.89
Caldas 98	Bernesga Mb.	1.09	0.63	13.03	3.32	< D.L.	1.33	7.00	7.80

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
Caldas 76	Bernesga Mb.	< D.L.	10.68	26.68	34.32	7.06	0.68	18.23	< D.L.
Caldas 77	Bernesga Mb.	< D.L.	10.77	27.14	25.77	6.96	0.74	18.55	< D.L.
Caldas 78	Bernesga Mb.	< D.L.	10.86	26.62	19.39	8.10	0.83	18.19	< D.L.
Caldas 79	Bernesga Mb.	< D.L.	11.64	28.14	15.29	8.22	0.71	19.23	< D.L.
Caldas 80	Bernesga Mb.	< D.L.	11.10	29.75	35.68	6.22	0.65	20.33	< D.L.
Caldas 81	Bernesga Mb.	< D.L.	10.39	26.06	26.56	7.12	0.63	17.81	< D.L.
Caldas 82	Bernesga Mb.	< D.L.	10.58	26.87	32.74	6.75	0.71	18.36	< D.L.
Caldas 83	Bernesga Mb.	< D.L.	10.36	26.01	24.50	6.70	0.71	17.78	< D.L.
Caldas 84	Bernesga Mb.	< D.L.	9.87	26.39	36.01	5.80	0.65	18.03	< D.L.
Caldas 85	Bernesga Mb.	0.26	10.71	27.30	26.86	6.63	0.71	18.66	0.14
Caldas 86	Bernesga Mb.	< D.L.	10.66	28.50	35.22	6.51	0.64	19.48	< D.L.
Caldas 87	Bernesga Mb.	< D.L.	10.04	30.24	32.46	5.74	0.63	20.67	< D.L.
Caldas 88	Bernesga Mb.	< D.L.	10.12	26.34	28.89	6.26	0.60	18.00	< D.L.
Caldas 89	Bernesga Mb.	< D.L.	11.80	31.17	24.33	9.90	0.63	21.30	< D.L.
Caldas 90	Bernesga Mb.	< D.L.	10.94	27.08	20.76	7.19	0.67	18.51	< D.L.
Caldas 91	Bernesga Mb.	< D.L.	11.12	29.60	40.48	6.51	0.65	20.23	< D.L.
Caldas 92	Bernesga Mb.	< D.L.	11.11	27.90	17.60	7.57	0.70	19.07	< D.L.
Caldas 93	Bernesga Mb.	< D.L.	9.62	25.67	28.98	5.31	0.66	17.55	< D.L.
Caldas 94	Bernesga Mb.	< D.L.	10.01	25.36	27.84	6.51	0.69	17.33	< D.L.
Caldas 95	Bernesga Mb.	< D.L.	10.44	26.18	22.66	6.75	0.66	17.89	< D.L.
Caldas 96	Bernesga Mb.	< D.L.	10.39	25.47	18.50	6.51	0.61	17.41	< D.L.
Caldas 97	Bernesga Mb.	< D.L.	10.58	26.19	20.85	7.16	0.59	17.90	< D.L.
Caldas 98	Bernesga Mb.	< D.L.	11.11	27.60	23.17	7.29	0.65	18.86	< D.L.

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
Caldas 76	Bernesga Mb.	0.88	1.14	1.65	12.76	< D.L.	1.88	0.27	2.45	0.01	0.08	0.84
Caldas 77	Bernesga Mb.	0.97	1.03	1.60	12.02	< D.L.	1.64	0.21	2.28	0.01	< D.L.	< D.L.
Caldas 78	Bernesga Mb.	1.78	0.56	1.80	14.69	< D.L.	1.04	0.02	0.77	0.01	< D.L.	< D.L.
Caldas 79	Bernesga Mb.	1.77	0.56	1.76	12.74	0.29	0.99	0.00	0.85	0.01	< D.L.	< D.L.
Caldas 80	Bernesga Mb.	< D.L.	< D.L.	1.33	< D.L.	< D.L.	3.12	0.49	3.39	0.01	0.05	0.47
Caldas 81	Bernesga Mb.	0.86	1.17	1.61	13.24	< D.L.	1.74	0.24	2.25	0.01	0.04	0.36
Caldas 82	Bernesga Mb.	< D.L.	< D.L.	1.54	< D.L.	< D.L.	2.19	0.34	3.11	0.01	0.03	0.29
Caldas 83	Bernesga Mb.	< D.L.	< D.L.	1.58	< D.L.	< D.L.	1.62	0.21	2.09	0.01	< D.L.	< D.L.
Caldas 84	Bernesga Mb.	< D.L.	< D.L.	1.29	7.92	< D.L.	4.56	0.66	4.45	0.01	0.04	0.43
Caldas 85	Bernesga Mb.	< D.L.	< D.L.	1.42	< D.L.	< D.L.	2.41	0.38	2.92	0.01	0.03	0.28
Caldas 86	Bernesga Mb.	< D.L.	< D.L.	1.42	< D.L.	< D.L.	3.09	0.49	3.82	0.01	0.05	0.51
Caldas 87	Bernesga Mb.	< D.L.	< D.L.	1.37	< D.L.	< D.L.	2.91	0.46	3.65	0.01	0.04	0.38
Caldas 88	Bernesga Mb.	< D.L.	< D.L.	1.42	13.39	< D.L.	2.42	0.38	2.69	0.01	0.08	0.79
Caldas 89	Bernesga Mb.	1.18	0.85	1.64	17.05	< D.L.	1.84	0.27	2.28	0.01	0.03	0.30
Caldas 90	Bernesga Mb.	1.39	0.72	1.68	12.79	< D.L.	1.35	0.13	1.56	0.01	< D.L.	< D.L.
Caldas 91	Bernesga Mb.	< D.L.	< D.L.	1.38	10.81	< D.L.	3.89	0.59	4.26	0.01	0.05	0.54
Caldas 92	Bernesga Mb.	0.97	1.03	1.65	11.68	< D.L.	1.44	0.16	1.73	0.01	0.03	0.29
Caldas 93	Bernesga Mb.	< D.L.	< D.L.	1.08	< D.L.	< D.L.	5.79	0.76	4.21	0.01	0.07	0.67
Caldas 94	Bernesga Mb.	0.88	1.13	1.55	14.75	< D.L.	2.01	0.30	2.58	0.01	0.08	0.75
Caldas 95	Bernesga Mb.	0.74	1.35	1.58	9.87	< D.L.	1.63	0.21	1.94	0.01	< D.L.	< D.L.
Caldas 96	Bernesga Mb.	< D.L.	< D.L.	1.63	< D.L.	< D.L.	1.30	0.11	1.37	0.01	0.04	0.39
Caldas 97	Bernesga Mb.	1.58	0.63	1.69	12.81	0.29	1.18	0.07	1.14	0.01	0.45	4.46
Caldas 98	Bernesga Mb.	0.99	1.01	1.63	11.63	< D.L.	1.47	0.17	1.74	0.01	0.10	1.00

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	V (wt%)	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
Caldas 76	Bernesga Mb.	1676.28	0.13	0.17	6.56	0.02	7.53	11.85	389659.19	1332.53	-20.75
Caldas 77	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.47	0.02	7.01	11.51	393146.61	1196.00	-22.07
Caldas 78	Bernesga Mb.	< D.L.	< D.L.	< D.L.	3.66	0.02	7.08	13.25	415588.01	646.57	-26.25
Caldas 79	Bernesga Mb.	< D.L.	< D.L.	< D.L.	4.05	0.02	7.09	12.63	395944.89	977.77	-24.78
Caldas 80	Bernesga Mb.	934.67	0.07	0.09	< D.L.	0.02	5.85	9.63	383654.44	1440.77	-12.22
Caldas 81	Bernesga Mb.	710.33	0.05	0.07	6.55	0.02	6.98	12.14	409691.73	1680.47	-23.12
Caldas 82	Bernesga Mb.	572.00	0.04	0.06	< D.L.	0.02	6.85	11.32	394373.13	1370.20	-18.46
Caldas 83	Bernesga Mb.	< D.L.	< D.L.	< D.L.	-3.71	0.02	7.05	11.46	411101.13	1054.37	-23.87
Caldas 84	Bernesga Mb.	857.96	0.06	0.09	12.85	0.02	6.19	10.18	400335.24	1442.03	-7.25
Caldas 85	Bernesga Mb.	569.61	0.04	0.06	< D.L.	0.02	6.84	10.97	388773.26	1204.10	-18.20
Caldas 86	Bernesga Mb.	1019.50	0.08	0.10	< D.L.	0.02	6.49	10.70	384308.66	1458.00	-12.52
Caldas 87	Bernesga Mb.	753.34	0.06	0.08	< D.L.	0.02	6.42	9.99	402070.45	1448.03	-15.83
Caldas 88	Bernesga Mb.	1579.60	0.12	0.16	8.05	0.02	6.51	10.77	412392.93	1513.57	-19.47
Caldas 89	Bernesga Mb.	607.26	0.05	0.06	5.25	0.02	6.58	14.71	396478.61	1236.70	-19.12
Caldas 90	Bernesga Mb.	< D.L.	< D.L.	< D.L.	4.88	0.02	7.20	11.67	395589.25	1295.53	-23.86
Caldas 91	Bernesga Mb.	1083.49	0.08	0.11	9.44	0.02	6.43	10.21	354707.23	1449.83	-5.84
Caldas 92	Bernesga Mb.	578.78	0.04	0.06	7.02	0.02	6.98	12.09	397808.80	1107.67	-22.95
Caldas 93	Bernesga Mb.	1336.57	0.10	0.13	< D.L.	0.02	5.80	9.42	398065.89	1455.33	-8.24
Caldas 94	Bernesga Mb.	1506.87	0.11	0.15	5.48	0.02	6.84	11.46	418854.92	1119.83	-22.65
Caldas 95	Bernesga Mb.	< D.L.	< D.L.	< D.L.	8.66	0.02	6.82	11.35	416107.35	1345.90	-23.68
Caldas 96	Bernesga Mb.	782.18	0.06	0.08	-4.76	0.02	6.92	11.13	414518.95	1522.03	-26.65
Caldas 97	Bernesga Mb.	8920.90	0.67	0.89	4.46	0.02	7.08	12.10	410405.00	1540.53	-27.10
Caldas 98	Bernesga Mb.	1994.39	0.15	0.20	6.70	0.02	6.95	11.64	391051.12	1330.60	-22.88

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
Caldas 76	Bernesga Mb.	-9.69	17.13	-0.49	0.95	95.27	95.84
Caldas 77	Bernesga Mb.	-10.31	16.86	-1.26	0.89	95.15	95.75
Caldas 78	Bernesga Mb.	-12.27	16.68	-3.31	0.79	94.83	95.51
Caldas 79	Bernesga Mb.	-11.58	15.68	-3.16	0.79	94.58	95.31
Caldas 80	Bernesga Mb.	-5.71	15.80	2.78	1.95	95.68	96.13
Caldas 81	Bernesga Mb.	-10.80	17.39	-1.46	0.88	95.53	96.03
Caldas 82	Bernesga Mb.	-8.63	17.11	0.56	1.07	95.36	95.90
Caldas 83	Bernesga Mb.	-11.15	17.45	-1.78	0.86	95.44	95.97
Caldas 84	Bernesga Mb.	-3.39	17.92	6.23	-1.19	96.26	96.61
Caldas 85	Bernesga Mb.	-8.51	16.89	0.57	1.07	95.71	96.17
Caldas 86	Bernesga Mb.	-5.85	16.78	3.16	2.18	95.62	96.10
Caldas 87	Bernesga Mb.	-7.40	17.75	2.14	1.41	95.86	96.29
Caldas 88	Bernesga Mb.	-9.10	17.57	0.34	1.04	95.88	96.30
Caldas 89	Bernesga Mb.	-8.94	15.16	-0.80	0.92	95.31	95.85
Caldas 90	Bernesga Mb.	-11.15	16.57	-2.25	0.83	95.04	95.66
Caldas 91	Bernesga Mb.	-2.73	16.00	5.86	-0.87	95.54	96.03
Caldas 92	Bernesga Mb.	-10.73	16.31	-1.97	0.84	95.09	95.70
Caldas 93	Bernesga Mb.	-3.85	18.10	5.87	-1.91	96.39	96.65
Caldas 94	Bernesga Mb.	-10.59	17.94	-0.95	0.92	95.80	96.25
Caldas 95	Bernesga Mb.	-11.06	17.16	-1.85	0.86	95.52	96.02
Caldas 96	Bernesga Mb.	-12.45	17.45	-3.08	0.80	95.48	96.00
Caldas 97	Bernesga Mb.	-12.67	17.23	-3.41	0.79	95.40	95.94
Caldas 98	Bernesga Mb.	-10.69	16.28	-1.95	0.85	95.18	95.76

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
Caldas 76	Bernesga Mb.	85.60	8.02	-0.83	8.06
Caldas 77	Bernesga Mb.	85.30	7.09	-0.68	7.12
Caldas 78	Bernesga Mb.	84.46	4.94	0.16	4.97
Caldas 79	Bernesga Mb.	83.91	3.71	-0.01	3.74
Caldas 80	Bernesga Mb.	86.90	11.30	-1.79	11.32
Caldas 81	Bernesga Mb.	86.29	7.97	-0.93	8.00
Caldas 82	Bernesga Mb.	85.85	9.10	-1.28	9.12
Caldas 83	Bernesga Mb.	86.04	7.68	-0.70	7.71
Caldas 84	Bernesga Mb.	88.40	16.99	-2.67	17.02
Caldas 85	Bernesga Mb.	86.86	10.67	-0.76	10.70
Caldas 86	Bernesga Mb.	86.63	12.52	-1.36	12.55
Caldas 87	Bernesga Mb.	87.21	11.57	-2.28	11.60
Caldas 88	Bernesga Mb.	87.28	10.06	-1.86	10.08
Caldas 89	Bernesga Mb.	85.95	7.26	-0.63	7.29
Caldas 90	Bernesga Mb.	85.04	5.80	-0.43	5.83
Caldas 91	Bernesga Mb.	86.48	13.58	-2.25	13.60
Caldas 92	Bernesga Mb.	85.20	5.93	-0.62	5.96
Caldas 93	Bernesga Mb.	90.25	18.00	-3.73	18.03
Caldas 94	Bernesga Mb.	87.02	9.27	-1.32	9.30
Caldas 95	Bernesga Mb.	86.28	7.30	-1.03	7.33
Caldas 96	Bernesga Mb.	86.14	6.45	-0.68	6.48
Caldas 97	Bernesga Mb.	85.95	5.35	-0.91	5.38
Caldas 98	Bernesga Mb.	85.44	5.93	-0.83	5.96

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
Caldas 76	Bernesga Mb.	0.61	4.67	-48.26	0.81
Caldas 77	Bernesga Mb.	0.77	4.78	-46.96	0.83
Caldas 78	Bernesga Mb.	1.68	4.75	-45.10	0.87
Caldas 79	Bernesga Mb.	1.48	4.84	-42.46	0.87
Caldas 80	Bernesga Mb.	-0.56	4.38	-52.95	0.74
Caldas 81	Bernesga Mb.	0.46	4.64	-48.21	0.83
Caldas 82	Bernesga Mb.	0.13	4.63	-50.83	0.79
Caldas 83	Bernesga Mb.	0.72	4.66	-47.92	0.84
Caldas 84	Bernesga Mb.	-1.45	4.03	-63.32	0.69
Caldas 85	Bernesga Mb.	0.54	4.47	-50.26	0.79
Caldas 86	Bernesga Mb.	-0.04	4.36	-55.14	0.74
Caldas 87	Bernesga Mb.	-0.96	4.48	-54.76	0.76
Caldas 88	Bernesga Mb.	-0.56	4.50	-51.84	0.79
Caldas 89	Bernesga Mb.	0.63	4.40	-46.33	0.82
Caldas 90	Bernesga Mb.	1.02	4.79	-44.86	0.85
Caldas 91	Bernesga Mb.	-0.97	4.36	-56.86	0.69
Caldas 92	Bernesga Mb.	0.79	4.73	-45.25	0.84
Caldas 93	Bernesga Mb.	-2.64	4.08	-61.51	0.70
Caldas 94	Bernesga Mb.	0.03	4.56	-50.39	0.82
Caldas 95	Bernesga Mb.	0.34	4.62	-47.66	0.84
Caldas 96	Bernesga Mb.	0.73	4.79	-45.43	0.86
Caldas 97	Bernesga Mb.	0.50	4.85	-43.87	0.87
Caldas 98	Bernesga Mb.	0.56	4.79	-44.47	0.84

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
Caldas 76	Bernesga Mb.	6.01	0.47	4.00	4.00	1.00	< D.L.	9.00
Caldas 77	Bernesga Mb.	5.70	0.45	4.00	4.00	1.00	< D.L.	9.00
Caldas 78	Bernesga Mb.	3.81	0.40	4.00	4.00	1.00	< D.L.	9.00
Caldas 79	Bernesga Mb.	3.54	0.41	4.00	4.00	1.00	< D.L.	9.00
Caldas 80	Bernesga Mb.	10.52	0.53	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 81	Bernesga Mb.	5.75	0.43	4.00	4.00	1.00	< D.L.	9.00
Caldas 82	Bernesga Mb.	7.54	0.50	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 83	Bernesga Mb.	5.44	0.43	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 84	Bernesga Mb.	14.28	0.60	4.00	4.00	1.00	< D.L.	9.00
Caldas 85	Bernesga Mb.	7.48	0.46	1.00	< D.L.	4.00	< D.L.	< D.L.
Caldas 86	Bernesga Mb.	10.26	0.54	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 87	Bernesga Mb.	9.81	0.53	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 88	Bernesga Mb.	7.92	0.47	4.00	4.00	1.00	< D.L.	9.00
Caldas 89	Bernesga Mb.	5.75	0.43	4.00	4.00	1.00	< D.L.	9.00
Caldas 90	Bernesga Mb.	4.60	0.43	4.00	4.00	1.00	< D.L.	9.00
Caldas 91	Bernesga Mb.	12.57	0.64	4.00	4.00	1.00	< D.L.	9.00
Caldas 92	Bernesga Mb.	4.88	0.43	4.00	4.00	1.00	< D.L.	9.00
Caldas 93	Bernesga Mb.	14.98	0.56	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 94	Bernesga Mb.	6.56	0.44	4.00	4.00	1.00	< D.L.	9.00
Caldas 95	Bernesga Mb.	5.44	0.42	4.00	4.00	1.00	< D.L.	9.00
Caldas 96	Bernesga Mb.	4.41	0.39	1.00	< D.L.	1.00	< D.L.	< D.L.
Caldas 97	Bernesga Mb.	3.93	0.39	4.00	4.00	1.00	< D.L.	9.00
Caldas 98	Bernesga Mb.	4.91	0.43	4.00	4.00	1.00	< D.L.	9.00

3. Geochemical ratios and proxies – La Majua section

3.1 La Majua 1 - 25

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
La Majua 1	Barrios Fm	> D.L.	12.35	0.65	13.00	13.00
La Majua 2	Getino Bed	48.30	24.68	17.97	90.95	42.65
La Majua 3	Getino Bed	> D.L.	31.90	19.32	51.22	51.22
La Majua 4	Getino Bed	> D.L.	21.60	23.58	45.18	45.18
La Majua 5	Getino Bed	> D.L.	14.75	21.75	36.50	36.50
La Majua 6	Getino Bed	> D.L.	17.70	27.33	45.03	45.03
La Majua 7	Getino Bed	> D.L.	17.58	18.14	35.71	35.71
La Majua 8	Getino Bed	> D.L.	> D.L.	26.35	26.35	26.35
La Majua 9	Getino Bed	> D.L.	27.53	24.72	52.25	52.25
La Majua 10	Getino Bed	> D.L.	13.56	20.89	34.44	34.44
La Majua 11	Getino Bed	> D.L.	15.99	24.97	40.95	40.95
La Majua 12	Getino Bed	> D.L.	34.84	19.44	54.28	54.28
La Majua 13	Getino Bed	> D.L.	> D.L.	15.21	15.21	15.21
La Majua 14	Getino Bed	> D.L.	105.82	16.90	122.71	122.71
La Majua 15	Getino Bed	> D.L.	> D.L.	23.69	23.69	23.69
La Majua 16	Getino Bed	> D.L.	12.59	26.89	39.48	39.48
La Majua 17	Getino Bed	46.80	24.68	26.72	98.20	51.40
La Majua 18	Getino Bed	> D.L.	> D.L.	24.37	24.37	24.37
La Majua 19	Getino Bed	> D.L.	47.08	28.76	75.84	75.84
La Majua 20	Getino Bed	> D.L.	> D.L.	-0.91	-0.91	-0.91
La Majua 21	Getino Bed	> D.L.	> D.L.	-1.33	-1.33	-1.33
La Majua 22	Getino Bed	> D.L.	> D.L.	6.21	6.21	6.21
La Majua 23	Getino Bed	> D.L.	> D.L.	18.31	18.31	18.31
La Majua 24	Getino Bed	> D.L.	> D.L.	17.47	17.47	17.47
La Majua 25	Getino Bed	40.61	> D.L.	15.96	56.57	15.96

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
La Majua 1	Barrios Fm	> D.L.	19.45	0.98	20.43	20.43
La Majua 2	Getino Bed	57.76	38.87	27.02	123.65	65.89
La Majua 3	Getino Bed	> D.L.	50.24	29.05	79.29	79.29
La Majua 4	Getino Bed	> D.L.	34.01	35.46	69.48	69.48
La Majua 5	Getino Bed	> D.L.	23.23	32.70	55.93	55.93
La Majua 6	Getino Bed	> D.L.	27.88	41.10	68.98	68.98
La Majua 7	Getino Bed	> D.L.	27.68	27.27	54.95	54.95
La Majua 8	Getino Bed	> D.L.	> D.L.	39.63	39.63	39.63
La Majua 9	Getino Bed	> D.L.	43.35	37.18	80.52	80.52
La Majua 10	Getino Bed	> D.L.	21.35	31.41	52.76	52.76
La Majua 11	Getino Bed	> D.L.	25.17	37.55	62.72	62.72
La Majua 12	Getino Bed	> D.L.	54.87	29.23	84.10	84.10
La Majua 13	Getino Bed	> D.L.	> D.L.	22.87	22.87	22.87
La Majua 14	Getino Bed	> D.L.	166.64	25.41	192.05	192.05
La Majua 15	Getino Bed	> D.L.	> D.L.	35.62	35.62	35.62
La Majua 16	Getino Bed	> D.L.	19.83	40.43	60.26	60.26
La Majua 17	Getino Bed	55.96	38.87	40.19	135.01	79.05
La Majua 18	Getino Bed	> D.L.	> D.L.	36.65	36.65	36.65
La Majua 19	Getino Bed	> D.L.	74.15	43.25	117.40	117.40
La Majua 20	Getino Bed	> D.L.	> D.L.	-1.36	-1.36	-1.36
La Majua 21	Getino Bed	> D.L.	> D.L.	-2.01	-2.01	-2.01
La Majua 22	Getino Bed	> D.L.	> D.L.	9.33	9.33	9.33
La Majua 23	Getino Bed	> D.L.	> D.L.	27.53	27.53	27.53
La Majua 24	Getino Bed	> D.L.	> D.L.	26.27	26.27	26.27
La Majua 25	Getino Bed	48.56	> D.L.	24.00	72.56	24.00

Sample	Formation	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al2O3*5	10Al2O3
La Majua 1	Barrios Fm	> D.L.	> D.L.	-1.62	< D.L.	< D.L.	0.51	3.16	0.77	1.54
La Majua 2	Getino Bed	72.20	144.40	3.98	2.15	2.88	20.17	3.44	88.66	177.33
La Majua 3	Getino Bed	> D.L.	> D.L.	-4.19	< D.L.	< D.L.	21.12	3.31	92.58	185.17
La Majua 4	Getino Bed	> D.L.	> D.L.	-2.83	< D.L.	< D.L.	23.31	4.62	101.01	202.01
La Majua 5	Getino Bed	> D.L.	> D.L.	-1.94	< D.L.	< D.L.	20.55	4.31	88.27	176.54
La Majua 6	Getino Bed	> D.L.	> D.L.	-2.32	< D.L.	< D.L.	27.60	6.91	120.20	240.40
La Majua 7	Getino Bed	> D.L.	> D.L.	-2.31	< D.L.	< D.L.	18.32	3.37	79.29	158.58
La Majua 8	Getino Bed	> D.L.	> D.L.	> D.L.	< D.L.	< D.L.	23.50	8.73	100.28	200.56
La Majua 9	Getino Bed	> D.L.	> D.L.	-3.61	< D.L.	< D.L.	24.03	4.13	103.93	207.86
La Majua 10	Getino Bed	> D.L.	> D.L.	-1.78	< D.L.	< D.L.	19.82	4.28	85.14	170.27
La Majua 11	Getino Bed	> D.L.	> D.L.	-2.10	< D.L.	< D.L.	24.94	5.84	108.33	216.66
La Majua 12	Getino Bed	> D.L.	> D.L.	-4.57	< D.L.	< D.L.	18.27	3.58	78.30	156.60
La Majua 13	Getino Bed	> D.L.	> D.L.	> D.L.	< D.L.	< D.L.	17.62	36.97	77.58	155.16
La Majua 14	Getino Bed	> D.L.	> D.L.	-13.89	< D.L.	< D.L.	21.77	70.85	97.28	194.57
La Majua 15	Getino Bed	> D.L.	> D.L.	> D.L.	< D.L.	< D.L.	25.43	8.28	111.53	223.06
La Majua 16	Getino Bed	> D.L.	> D.L.	-1.65	< D.L.	< D.L.	25.10	6.40	107.98	215.95
La Majua 17	Getino Bed	69.95	139.90	3.76	2.02	2.71	23.31	3.74	99.13	198.26
La Majua 18	Getino Bed	> D.L.	> D.L.	> D.L.	< D.L.	< D.L.	28.91	20.96	128.52	257.04
La Majua 19	Getino Bed	> D.L.	> D.L.	-6.18	< D.L.	< D.L.	29.87	3.57	130.68	261.35
La Majua 20	Getino Bed	> D.L.	> D.L.	> D.L.	< D.L.	< D.L.	13.71	21.46	67.68	135.35
La Majua 21	Getino Bed	> D.L.	> D.L.	> D.L.	< D.L.	< D.L.	2.41	27.53	11.44	22.87
La Majua 22	Getino Bed	> D.L.	> D.L.	> D.L.	< D.L.	< D.L.	9.11	10.06	40.43	80.87
La Majua 23	Getino Bed	> D.L.	> D.L.	> D.L.	< D.L.	< D.L.	18.88	13.97	82.01	164.02
La Majua 24	Getino Bed	> D.L.	> D.L.	> D.L.	< D.L.	< D.L.	17.37	11.94	74.96	149.93
La Majua 25	Getino Bed	60.70	121.40	6.07	1.46	1.96	17.15	13.40	74.79	149.57

Sample	Formation	15Al2O3	Al2O3/10	K2O *5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	200TiO2	300TiO2	K2O/Al2O3
La Majua 1	Barrios Fm	2.31	0.02	0.31	> D.L.	> D.L.	21890.13	2.21	2.84	46.32	69.49	0.40
La Majua 2	Getino Bed	265.99	1.77	8.44	> D.L.	> D.L.	564.28	2.40	3.09	210.12	315.17	0.10
La Majua 3	Getino Bed	277.75	1.85	9.08	> D.L.	> D.L.	-1355.18	2.31	2.98	258.50	387.75	0.10
La Majua 4	Getino Bed	303.02	2.02	11.08	> D.L.	> D.L.	5587.22	3.23	4.16	278.13	417.20	0.11
La Majua 5	Getino Bed	264.82	1.77	10.22	> D.L.	> D.L.	6772.82	3.01	3.88	248.70	373.05	0.12
La Majua 6	Getino Bed	360.60	2.40	12.84	> D.L.	> D.L.	16501.71	4.83	6.22	369.41	554.11	0.11
La Majua 7	Getino Bed	237.87	1.59	8.52	> D.L.	> D.L.	2617.47	2.36	3.04	220.14	330.20	0.11
La Majua 8	Getino Bed	300.84	2.01	12.38	> D.L.	> D.L.	34548.78	6.11	7.86	412.48	618.73	0.12
La Majua 9	Getino Bed	311.79	2.08	11.62	> D.L.	> D.L.	1362.69	2.89	3.71	364.22	546.33	0.11
La Majua 10	Getino Bed	255.41	1.70	9.82	> D.L.	> D.L.	7416.56	2.99	3.85	281.24	421.85	0.12
La Majua 11	Getino Bed	324.98	2.17	11.73	> D.L.	> D.L.	12191.58	4.09	5.26	372.02	558.03	0.11
La Majua 12	Getino Bed	234.91	1.57	9.13	3.00	> D.L.	4321.60	2.50	3.22	244.11	366.17	0.12
La Majua 13	Getino Bed	232.74	1.55	7.15	1.45	25.82	219998.29	24.05	30.94	193.25	289.87	0.09
La Majua 14	Getino Bed	291.85	1.95	7.94	0.67	> D.L.	469810.67	49.56	63.75	196.13	294.19	0.08
La Majua 15	Getino Bed	334.59	2.23	11.13	> D.L.	> D.L.	28381.34	5.79	7.45	291.97	437.96	0.10
La Majua 16	Getino Bed	323.93	2.16	12.64	> D.L.	> D.L.	16218.15	4.48	5.76	334.48	501.72	0.12
La Majua 17	Getino Bed	297.39	1.98	12.56	> D.L.	> D.L.	-89.12	2.61	3.36	340.62	510.94	0.13
La Majua 18	Getino Bed	385.56	2.57	11.45	0.43	> D.L.	112568.52	14.66	18.86	286.00	429.00	0.09
La Majua 19	Getino Bed	392.03	2.61	13.52	> D.L.	> D.L.	-9602.91	2.50	3.21	381.20	571.79	0.10
La Majua 20	Getino Bed	203.03	1.35	-0.43	1.20	40.88	103571.04	12.15	15.63	233.26	349.90	-0.01
La Majua 21	Getino Bed	34.31	0.23	-0.63	1.02	> D.L.	189531.75	19.26	24.77	69.56	104.34	-0.05
La Majua 22	Getino Bed	121.30	0.81	2.92	0.44	17.25	47589.00	5.83	7.50	171.37	257.05	0.07
La Majua 23	Getino Bed	246.03	1.64	8.60	> D.L.	25.52	58137.04	7.98	10.27	263.36	395.04	0.10
La Majua 24	Getino Bed	224.89	1.50	8.21	> D.L.	25.44	45853.12	6.57	8.45	276.31	414.46	0.11
La Majua 25	Getino Bed	224.36	1.50	7.50	0.39	28.66	53871.77	7.37	9.48	294.28	441.43	0.10

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
La Majua 1	Barrios Fm	-0.40	> D.L.	0.50	2.75	4.87	0.21	0.69	0.52
La Majua 2	Getino Bed	-1.02	> D.L.	0.54	0.60	0.44	2.26	-0.35	23.68
La Majua 3	Getino Bed	-1.01	> D.L.	0.52	0.57	0.43	2.32	-0.36	23.62
La Majua 4	Getino Bed	-0.96	> D.L.	0.66	0.52	0.40	2.48	-0.39	22.57
La Majua 5	Getino Bed	-0.94	> D.L.	0.63	0.57	0.41	2.41	-0.38	20.84
La Majua 6	Getino Bed	-0.97	> D.L.	0.84	0.39	0.39	2.59	-0.41	24.22
La Majua 7	Getino Bed	-0.97	> D.L.	0.53	0.65	0.44	2.26	-0.35	21.05
La Majua 8	Getino Bed	-0.91	> D.L.	0.94	0.49	0.39	2.56	-0.41	20.74
La Majua 9	Getino Bed	-0.95	> D.L.	0.62	0.49	0.40	2.51	-0.40	22.48
La Majua 10	Getino Bed	-0.94	> D.L.	0.63	0.59	0.42	2.38	-0.38	20.64
La Majua 11	Getino Bed	-0.97	> D.L.	0.77	0.44	0.40	2.52	-0.40	23.27
La Majua 12	Getino Bed	-0.93	> D.L.	0.55	0.64	0.43	2.32	-0.37	6.84
La Majua 13	Getino Bed	-1.04	0.17	1.54	0.35	0.47	2.11	-0.32	11.06
La Majua 14	Getino Bed	-1.09	> D.L.	1.85	0.13	0.45	2.20	-0.34	18.46
La Majua 15	Getino Bed	-1.00	> D.L.	0.92	0.45	0.40	2.48	-0.39	24.85
La Majua 16	Getino Bed	-0.93	> D.L.	0.81	0.45	0.39	2.58	-0.41	22.01
La Majua 17	Getino Bed	-0.90	> D.L.	0.57	0.52	0.39	2.57	-0.41	20.30
La Majua 18	Getino Bed	-1.05	> D.L.	1.32	0.28	0.40	2.50	-0.40	22.70
La Majua 19	Getino Bed	-0.99	> D.L.	0.55	0.37	0.38	2.63	-0.42	25.38
La Majua 20	Getino Bed	< D.L.	0.30	1.24	0.55	-3.02	-0.33	< D.L.	15.79
La Majua 21	Getino Bed	< D.L.	> D.L.	1.44	1.23	-1.96	-0.51	< D.L.	3.03
La Majua 22	Getino Bed	-1.14	0.21	0.92	0.94	0.76	1.32	-0.12	12.16
La Majua 23	Getino Bed	-0.98	0.16	1.06	0.52	0.44	2.27	-0.36	21.65
La Majua 24	Getino Bed	-0.96	0.17	0.97	0.60	0.45	2.23	-0.35	20.38
La Majua 25	Getino Bed	-1.00	0.19	1.02	0.53	0.46	2.15	-0.33	16.81

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
La Majua 1	Barrios Fm	0.30	0.36	3.16	566.76	2.75	0.00	20.48	> D.L.	> D.L.
La Majua 2	Getino Bed	0.75	2.44	3.44	3.94	0.60	0.25	0.19	27.72	0.00
La Majua 3	Getino Bed	0.78	2.60	3.31	3.71	0.57	0.27	0.18	27.13	0.00
La Majua 4	Getino Bed	0.89	3.11	4.62	3.33	0.52	0.30	0.23	26.01	0.00
La Majua 5	Getino Bed	0.85	2.89	4.31	3.74	0.57	0.27	0.24	23.64	0.00
La Majua 6	Getino Bed	0.99	3.56	6.91	2.47	0.39	0.41	0.29	26.84	0.00
La Majua 7	Getino Bed	0.75	2.46	3.37	4.42	0.65	0.23	0.21	28.75	0.00
La Majua 8	Getino Bed	0.97	3.44	8.73	3.08	0.49	0.32	0.44	25.79	0.00
La Majua 9	Getino Bed	0.92	3.25	4.13	3.08	0.49	0.32	0.20	28.58	0.00
La Majua 10	Getino Bed	0.82	2.79	4.28	3.89	0.59	0.26	0.25	26.54	0.00
La Majua 11	Getino Bed	0.93	3.28	5.84	2.76	0.44	0.36	0.27	29.48	0.00
La Majua 12	Getino Bed	2.29	4.12	3.58	4.34	0.64	0.23	0.23	28.17	0.00
La Majua 13	Getino Bed	1.40	2.83	36.97	2.22	0.35	0.45	2.22	18.20	0.00
La Majua 14	Getino Bed	1.05	2.64	70.85	1.34	0.13	0.75	3.64	21.16	0.00
La Majua 15	Getino Bed	0.90	3.12	8.28	2.79	0.45	0.36	0.37	26.47	0.00
La Majua 16	Getino Bed	0.98	3.51	6.40	2.83	0.45	0.35	0.30	30.40	0.00
La Majua 17	Getino Bed	0.98	3.49	3.74	3.33	0.52	0.30	0.19	28.01	0.00
La Majua 18	Getino Bed	1.13	3.42	20.96	1.89	0.28	0.53	0.82	23.87	0.00
La Majua 19	Getino Bed	1.03	3.73	3.57	2.36	0.37	0.42	0.14	35.99	0.00
La Majua 20	Getino Bed	0.86	0.77	21.46	3.58	0.55	0.28	1.28	> D.L.	> D.L.
La Majua 21	Getino Bed	0.76	0.63	27.53	17.02	1.23	0.06	12.04	> D.L.	> D.L.
La Majua 22	Getino Bed	0.67	1.25	10.06	8.64	0.94	0.12	1.03	> D.L.	> D.L.
La Majua 23	Getino Bed	0.76	2.48	13.97	3.30	0.52	0.30	0.70	15.18	0.00
La Majua 24	Getino Bed	0.74	2.38	11.94	3.96	0.60	0.25	0.63	21.18	0.00
La Majua 25	Getino Bed	0.89	2.39	13.40	3.43	0.53	0.29	0.70	17.32	0.00

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Zr/Sc	Cr/Th	Th/Sc
La Majua 1	Barrios Fm	0.67	-0.16	-976.93	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	1.62	> D.L.	> D.L.	> D.L.
La Majua 2	Getino Bed	16.88	0.06	345.59	> D.L.	132.41	0.19	1.95	4.54	> D.L.	> D.L.	3.24	> D.L.	9.37	> D.L.
La Majua 3	Getino Bed	14.33	0.05	292.31	> D.L.	139.74	0.13	2.23	4.51	> D.L.	12.13	4.19	12.12	8.75	0.69
La Majua 4	Getino Bed	14.53	0.04	257.00	> D.L.	165.03	0.20	2.05	4.04	> D.L.	9.28	2.83	10.31	13.88	0.34
La Majua 5	Getino Bed	14.20	0.05	289.22	> D.L.	144.02	0.21	2.14	4.09	> D.L.	> D.L.	1.94	> D.L.	17.81	> D.L.
La Majua 6	Getino Bed	13.02	0.03	199.25	> D.L.	197.69	0.25	1.83	4.24	> D.L.	> D.L.	2.32	> D.L.	18.10	> D.L.
La Majua 7	Getino Bed	14.41	0.04	261.41	> D.L.	114.19	0.19	1.66	3.55	> D.L.	> D.L.	2.31	> D.L.	11.76	> D.L.
La Majua 8	Getino Bed	9.72	0.05	282.39	> D.L.	216.66	0.33	2.01	4.16	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.
La Majua 9	Getino Bed	11.41	0.05	324.62	> D.L.	194.66	0.18	2.22	4.05	> D.L.	> D.L.	3.61	> D.L.	13.61	> D.L.
La Majua 10	Getino Bed	12.11	0.05	297.84	> D.L.	142.77	0.20	1.91	4.19	> D.L.	> D.L.	1.78	> D.L.	18.65	> D.L.
La Majua 11	Getino Bed	11.65	0.04	229.86	> D.L.	220.41	0.26	2.27	3.57	> D.L.	> D.L.	2.10	> D.L.	24.99	> D.L.
La Majua 12	Getino Bed	12.83	0.03	158.60	> D.L.	158.51	0.27	2.24	3.10	> D.L.	2.90	4.57	6.14	8.40	0.25
La Majua 13	Getino Bed	16.06	0.04	209.67	> D.L.	595.83	1.24	4.39	14.90	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.
La Majua 14	Getino Bed	19.84	0.02	137.63	> D.L.	946.20	2.15	2.52	11.92	> D.L.	> D.L.	13.89	> D.L.	2.03	> D.L.
La Majua 15	Getino Bed	15.28	0.04	240.81	> D.L.	205.69	0.48	1.92	3.30	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.
La Majua 16	Getino Bed	12.91	0.04	243.60	> D.L.	200.08	0.29	1.66	3.25	> D.L.	> D.L.	1.65	> D.L.	25.72	> D.L.
La Majua 17	Getino Bed	11.64	0.05	292.70	> D.L.	161.19	0.15	1.84	3.09	> D.L.	13.42	3.24	21.71	13.31	0.60
La Majua 18	Getino Bed	17.97	0.05	304.44	> D.L.	279.60	0.55	2.30	5.07	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.
La Majua 19	Getino Bed	13.71	0.04	247.33	> D.L.	240.66	0.29	1.71	2.64	> D.L.	11.10	6.18	14.57	8.97	0.80
La Majua 20	Getino Bed	11.61	0.05	307.88	> D.L.	280.93	0.83	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.
La Majua 21	Getino Bed	6.58	0.05	310.53	> D.L.	384.69	2.76	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.
La Majua 22	Getino Bed	9.44	0.05	321.82	> D.L.	121.36	0.66	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.
La Majua 23	Getino Bed	12.46	0.06	335.85	> D.L.	274.39	0.57	4.21	11.10	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.
La Majua 24	Getino Bed	10.85	0.05	320.96	> D.L.	242.86	0.66	3.12	5.88	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.
La Majua 25	Getino Bed	10.17	0.06	364.39	> D.L.	247.10	0.60	4.30	8.63	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
La Majua 1	Barrios Fm	> D.L.	> D.L.	0.05	-48.41	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.
La Majua 2	Getino Bed	6.08	0.16	0.05	15.63	3.13	22.41	> D.L.	0.43	2.33
La Majua 3	Getino Bed	4.51	0.22	0.03	8.38	2.02	5.74	> D.L.	0.49	2.02
La Majua 4	Getino Bed	4.48	0.22	0.03	7.97	2.19	7.24	> D.L.	0.51	1.97
La Majua 5	Getino Bed	4.18	0.24	0.03	7.83	1.95	20.75	> D.L.	0.52	1.91
La Majua 6	Getino Bed	4.60	0.22	0.03	5.70	2.51	4.54	> D.L.	0.43	2.32
La Majua 7	Getino Bed	5.05	0.20	0.04	9.80	3.04	-1.10	> D.L.	0.47	2.14
La Majua 8	Getino Bed	4.69	0.21	0.02	6.84	2.33	7.35	> D.L.	0.48	2.07
La Majua 9	Getino Bed	4.79	0.21	0.03	9.46	2.16	10.69	> D.L.	0.55	1.82
La Majua 10	Getino Bed	3.74	0.27	0.02	6.89	1.96	2.05	> D.L.	0.46	2.19
La Majua 11	Getino Bed	4.09	0.24	0.03	5.84	1.80	2.31	> D.L.	0.64	1.57
La Majua 12	Getino Bed	6.56	0.15	0.05	7.32	2.93	1.94	> D.L.	0.72	1.39
La Majua 13	Getino Bed	10.43	0.10	0.05	9.82	2.38	23.07	> D.L.	0.29	3.40
La Majua 14	Getino Bed	7.35	0.14	0.04	5.78	2.92	40.34	> D.L.	0.21	4.73
La Majua 15	Getino Bed	4.61	0.22	0.03	7.48	2.41	4.53	> D.L.	0.58	1.72
La Majua 16	Getino Bed	4.11	0.24	0.03	7.67	2.48	4.93	> D.L.	0.51	1.96
La Majua 17	Getino Bed	5.00	0.20	0.03	10.09	2.72	1.64	> D.L.	0.59	1.68
La Majua 18	Getino Bed	3.97	0.25	0.03	7.72	1.73	10.17	> D.L.	0.45	2.20
La Majua 19	Getino Bed	3.46	0.29	0.03	7.29	2.02	2.57	> D.L.	0.65	1.54
La Majua 20	Getino Bed	> D.L.	> D.L.	0.04	12.96	3.60	> D.L.	> D.L.	0.34	2.93
La Majua 21	Getino Bed	> D.L.	> D.L.	0.03	9.78	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.
La Majua 22	Getino Bed	> D.L.	> D.L.	0.03	10.82	6.76	> D.L.	> D.L.	0.18	5.69
La Majua 23	Getino Bed	10.28	0.10	0.03	11.43	2.44	13.69	> D.L.	0.38	2.64
La Majua 24	Getino Bed	14.79	0.07	0.06	19.93	4.74	8.82	> D.L.	0.53	1.89
La Majua 25	Getino Bed	14.08	0.07	0.04	15.11	3.27	16.70	> D.L.	0.50	2.01

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
La Majua 1	Barrios Fm	133.02	> D.L.	362.19	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.
La Majua 2	Getino Bed	3.89	0.77	22.65	> D.L.	> D.L.	1.15	4.40	9.70
La Majua 3	Getino Bed	2.41	> D.L.	22.69	> D.L.	> D.L.	> D.L.	3.05	11.21
La Majua 4	Getino Bed	5.06	> D.L.	21.76	> D.L.	> D.L.	1.54	4.39	11.04
La Majua 5	Getino Bed	1.92	> D.L.	21.13	> D.L.	> D.L.	1.59	4.35	11.07
La Majua 6	Getino Bed	6.64	> D.L.	22.96	> D.L.	> D.L.	1.58	5.62	9.91
La Majua 7	Getino Bed	8.42	> D.L.	20.70	> D.L.	> D.L.	> D.L.	3.91	9.70
La Majua 8	Getino Bed	16.37	> D.L.	25.05	> D.L.	> D.L.	1.42	8.30	12.12
La Majua 9	Getino Bed	4.41	> D.L.	24.46	> D.L.	> D.L.	1.20	4.29	13.41
La Majua 10	Getino Bed	4.14	> D.L.	24.23	> D.L.	> D.L.	> D.L.	4.80	11.04
La Majua 11	Getino Bed	4.53	> D.L.	21.57	> D.L.	> D.L.	1.57	5.51	13.71
La Majua 12	Getino Bed	7.31	> D.L.	19.25	> D.L.	> D.L.	1.31	5.23	13.90
La Majua 13	Getino Bed	10.70	> D.L.	47.19	7.54	> D.L.	> D.L.	58.66	13.89
La Majua 14	Getino Bed	8.03	> D.L.	38.91	9.24	> D.L.	> D.L.	83.67	8.22
La Majua 15	Getino Bed	4.90	> D.L.	16.45	> D.L.	> D.L.	1.41	7.86	9.56
La Majua 16	Getino Bed	11.59	> D.L.	21.82	> D.L.	> D.L.	1.08	6.35	11.15
La Majua 17	Getino Bed	5.01	0.67	20.73	> D.L.	> D.L.	> D.L.	3.04	12.33
La Majua 18	Getino Bed	8.82	> D.L.	20.39	> D.L.	> D.L.	2.26	11.30	9.25
La Majua 19	Getino Bed	2.77	> D.L.	18.55	> D.L.	> D.L.	0.99	5.37	12.03
La Majua 20	Getino Bed	8.78	> D.L.	33.41	> D.L.	> D.L.	> D.L.	27.80	11.42
La Majua 21	Getino Bed	45.26	> D.L.	115.12	> D.L.	> D.L.	> D.L.	317.78	> D.L.
La Majua 22	Getino Bed	6.46	> D.L.	33.99	> D.L.	> D.L.	> D.L.	22.39	5.97
La Majua 23	Getino Bed	5.75	> D.L.	33.39	> D.L.	> D.L.	> D.L.	18.94	12.67
La Majua 24	Getino Bed	5.23	> D.L.	25.77	> D.L.	> D.L.	1.98	16.94	13.66
La Majua 25	Getino Bed	10.47	0.77	28.32	> D.L.	> D.L.	> D.L.	17.11	14.11

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
La Majua 1	Barrios Fm	> D.L.	2170.66	5290.19	26831.91	842.94	1.00	3615.23	> D.L.
La Majua 2	Getino Bed	> D.L.	28.69	45.48	111.80	30.34	0.84	31.08	> D.L.
La Majua 3	Getino Bed	> D.L.	26.23	43.49	28.84	22.67	0.88	29.72	> D.L.
La Majua 4	Getino Bed	> D.L.	26.62	38.60	39.03	24.18	0.83	26.38	> D.L.
La Majua 5	Getino Bed	> D.L.	28.15	46.57	107.33	21.60	0.83	31.83	> D.L.
La Majua 6	Getino Bed	> D.L.	25.67	34.93	24.59	24.90	0.80	23.87	> D.L.
La Majua 7	Getino Bed	> D.L.	29.96	50.89	-6.43	29.46	0.84	34.78	> D.L.
La Majua 8	Getino Bed	> D.L.	31.24	42.08	44.22	28.22	0.75	28.76	> D.L.
La Majua 9	Getino Bed	> D.L.	30.99	39.55	64.50	28.91	0.85	27.03	> D.L.
La Majua 10	Getino Bed	> D.L.	30.98	48.07	11.88	21.63	0.83	32.85	> D.L.
La Majua 11	Getino Bed	> D.L.	34.74	47.77	13.92	24.69	0.80	32.65	> D.L.
La Majua 12	Getino Bed	> D.L.	34.40	56.60	12.03	40.75	0.79	38.68	> D.L.
La Majua 13	Getino Bed	> D.L.	35.71	702.78	73.08	33.03	0.45	480.27	> D.L.
La Majua 14	Getino Bed	> D.L.	38.74	1286.30	131.67	23.99	0.32	879.04	> D.L.
La Majua 15	Getino Bed	> D.L.	26.44	41.81	22.62	23.04	0.68	28.57	> D.L.
La Majua 16	Getino Bed	> D.L.	28.81	39.30	33.16	27.63	0.77	26.86	> D.L.
La Majua 17	Getino Bed	> D.L.	27.33	41.05	10.96	33.54	0.87	28.05	> D.L.
La Majua 18	Getino Bed	> D.L.	21.54	55.86	40.86	15.97	0.64	38.17	> D.L.
La Majua 19	Getino Bed	> D.L.	29.98	31.79	18.06	24.35	0.78	21.73	> D.L.
La Majua 20	Getino Bed	> D.L.	21.50	146.64	71.54	41.09	0.55	100.21	> D.L.
La Majua 21	Getino Bed	> D.L.	131.30	4114.50	440.40	54.26	0.27	2811.78	> D.L.
La Majua 22	Getino Bed	> D.L.	42.09	165.84	37.09	40.36	0.60	113.33	> D.L.
La Majua 23	Getino Bed	> D.L.	23.31	94.83	41.20	30.93	0.64	64.81	> D.L.
La Majua 24	Getino Bed	> D.L.	25.44	99.03	38.64	64.80	0.60	67.67	> D.L.
La Majua 25	Getino Bed	> D.L.	23.45	107.76	54.81	46.19	0.62	73.64	> D.L.

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
La Majua 1	Barrios Fm	> D.L.	> D.L.	0.39	> D.L.	> D.L.	51.68	1.71	1.09	> D.L.	> D.L.	> D.L.
La Majua 2	Getino Bed	1.35	0.74	1.23	39.44	> D.L.	2.03	0.31	3.66	0.01	> D.L.	> D.L.
La Majua 3	Getino Bed	> D.L.	> D.L.	1.06	> D.L.	> D.L.	1.82	0.26	2.36	0.01	0.04	0.37
La Majua 4	Getino Bed	> D.L.	> D.L.	1.11	> D.L.	> D.L.	2.08	0.32	5.41	0.01	0.04	0.39
La Majua 5	Getino Bed	> D.L.	> D.L.	0.95	> D.L.	> D.L.	2.11	0.32	1.79	0.01	> D.L.	> D.L.
La Majua 6	Getino Bed	> D.L.	> D.L.	1.18	> D.L.	> D.L.	2.69	0.43	8.45	0.01	0.06	0.56
La Majua 7	Getino Bed	> D.L.	> D.L.	1.18	> D.L.	> D.L.	1.98	0.30	7.07	0.01	0.05	0.50
La Majua 8	Getino Bed	> D.L.	> D.L.	1.10	> D.L.	> D.L.	3.53	0.55	17.38	0.01	0.06	0.63
La Majua 9	Getino Bed	> D.L.	> D.L.	1.13	> D.L.	> D.L.	1.78	0.25	4.85	0.01	> D.L.	> D.L.
La Majua 10	Getino Bed	> D.L.	> D.L.	0.88	> D.L.	> D.L.	2.18	0.34	3.73	0.01	0.05	0.52
La Majua 11	Getino Bed	> D.L.	> D.L.	0.88	> D.L.	> D.L.	2.49	0.40	5.19	0.02	> D.L.	> D.L.
La Majua 12	Getino Bed	> D.L.	> D.L.	1.37	> D.L.	> D.L.	1.96	0.29	6.06	0.01	0.04	0.37
La Majua 13	Getino Bed	> D.L.	> D.L.	1.01	> D.L.	> D.L.	24.06	1.38	8.79	0.01	0.21	2.14
La Majua 14	Getino Bed	> D.L.	> D.L.	0.70	> D.L.	> D.L.	44.62	1.65	8.27	0.01	0.04	0.42
La Majua 15	Getino Bed	> D.L.	> D.L.	1.06	> D.L.	> D.L.	3.72	0.57	5.79	0.01	0.04	0.43
La Majua 16	Getino Bed	> D.L.	> D.L.	1.19	> D.L.	> D.L.	2.53	0.40	13.25	0.01	0.04	0.36
La Majua 17	Getino Bed	1.39	0.72	1.47	50.32	> D.L.	1.49	0.17	5.25	0.01	> D.L.	> D.L.
La Majua 18	Getino Bed	> D.L.	> D.L.	0.93	> D.L.	> D.L.	9.15	0.96	12.00	0.01	0.10	1.00
La Majua 19	Getino Bed	> D.L.	> D.L.	1.05	> D.L.	> D.L.	1.32	0.12	3.83	0.02	> D.L.	> D.L.
La Majua 20	Getino Bed	> D.L.	> D.L.	1.91	> D.L.	> D.L.	-203.86	< D.L.	6.29	0.01	> D.L.	> D.L.
La Majua 21	Getino Bed	> D.L.	> D.L.	0.41	> D.L.	> D.L.	-219.49	< D.L.	5.48	> D.L.	> D.L.	> D.L.
La Majua 22	Getino Bed	> D.L.	> D.L.	0.96	> D.L.	> D.L.	14.29	1.16	2.77	0.00	> D.L.	> D.L.
La Majua 23	Getino Bed	> D.L.	> D.L.	1.46	> D.L.	> D.L.	6.63	0.82	4.99	0.01	> D.L.	> D.L.
La Majua 24	Getino Bed	> D.L.	> D.L.	2.72	> D.L.	> D.L.	5.72	0.76	4.15	0.01	0.04	0.39
La Majua 25	Getino Bed	> D.L.	> D.L.	2.11	60.24	> D.L.	7.02	0.85	8.29	0.01	0.10	1.00

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
La Majua 1	Barrios Fm	> D.L.	> D.L.	> D.L.	-1.62	1.39	6.88	409347.70	> D.L.	6.58
La Majua 2	Getino Bed	> D.L.	> D.L.	> D.L.	3.98	6.39	28.47	420538.61	520.90	-13.14
La Majua 3	Getino Bed	731.97	0.05	0.07	-4.19	7.86	22.22	418867.21	298.95	-14.32
La Majua 4	Getino Bed	780.46	0.06	0.08	-2.83	8.45	25.85	421734.37	634.13	-13.46
La Majua 5	Getino Bed	> D.L.	> D.L.	> D.L.	-1.94	7.56	20.18	401878.25	554.23	-11.18
La Majua 6	Getino Bed	1126.20	0.08	0.11	-2.32	11.20	31.68	404480.23	917.13	-13.00
La Majua 7	Getino Bed	998.56	0.07	0.10	-2.31	6.68	24.72	411367.64	328.10	-11.10
La Majua 8	Getino Bed	1258.93	0.09	0.13	> D.L.	12.49	29.95	395002.57	1031.17	-4.49
La Majua 9	Getino Bed	> D.L.	> D.L.	> D.L.	-3.61	11.06	31.81	409726.27	603.95	-15.19
La Majua 10	Getino Bed	1032.30	0.08	0.10	-1.78	8.53	19.49	399572.89	432.37	-10.51
La Majua 11	Getino Bed	> D.L.	> D.L.	> D.L.	-2.10	11.31	28.31	394341.28	812.00	-12.54
La Majua 12	Getino Bed	741.11	0.06	0.07	-4.57	7.43	33.78	400456.59	541.75	-10.44
La Majua 13	Getino Bed	4272.93	0.32	0.43	> D.L.	5.91	27.13	243121.87	4817.37	55.66
La Majua 14	Getino Bed	833.86	0.06	0.08	-13.89	5.96	24.70	224529.75	8615.53	129.14
La Majua 15	Getino Bed	863.56	0.06	0.09	> D.L.	8.86	27.20	409356.83	1094.88	-8.06
La Majua 16	Getino Bed	714.06	0.05	0.07	-1.65	10.15	31.58	400048.89	848.83	-11.25
La Majua 17	Getino Bed	> D.L.	> D.L.	> D.L.	3.76	10.34	35.20	413987.14	318.50	-14.91
La Majua 18	Getino Bed	1997.23	0.15	0.20	> D.L.	8.70	21.73	363015.38	1845.73	15.14
La Majua 19	Getino Bed	> D.L.	> D.L.	> D.L.	-6.18	11.59	33.68	426229.15	879.72	-22.56
La Majua 20	Getino Bed	> D.L.	> D.L.	> D.L.	> D.L.	7.07	29.43	298200.92	1991.47	21.53
La Majua 21	Getino Bed	> D.L.	> D.L.	> D.L.	> D.L.	2.08	6.57	194092.65	3846.90	56.27
La Majua 22	Getino Bed	> D.L.	> D.L.	> D.L.	> D.L.	5.16	17.28	369421.28	958.10	8.49
La Majua 23	Getino Bed	> D.L.	> D.L.	> D.L.	> D.L.	8.00	26.85	339823.69	1643.83	5.47
La Majua 24	Getino Bed	776.10	0.06	0.08	> D.L.	8.39	51.42	356936.03	1502.07	2.77
La Majua 25	Getino Bed	1992.65	0.15	0.20	6.07	8.93	36.56	318702.16	1354.27	5.25

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
La Majua 1	Barrios Fm	3.08	0.08	3.12	0.50	23.81	34.11
La Majua 2	Getino Bed	-6.14	9.58	-1.00	0.86	95.54	95.95
La Majua 3	Getino Bed	-6.69	10.00	-1.32	0.84	95.52	95.94
La Majua 4	Getino Bed	-6.29	10.91	-0.43	0.94	95.26	95.76
La Majua 5	Getino Bed	-5.23	9.53	-0.11	0.98	94.85	95.42
La Majua 6	Getino Bed	-6.07	12.98	0.90	1.17	95.58	96.04
La Majua 7	Getino Bed	-5.19	8.56	-0.59	0.90	94.95	95.47
La Majua 8	Getino Bed	-2.10	10.83	3.72	-1.29	94.79	95.40
La Majua 9	Getino Bed	-7.10	11.22	-1.07	0.87	95.23	95.74
La Majua 10	Getino Bed	-4.91	9.19	0.02	1.01	94.81	95.38
La Majua 11	Getino Bed	-5.86	11.70	0.43	1.08	95.40	95.88
La Majua 12	Getino Bed	-4.88	8.46	-0.33	0.94	85.80	87.25
La Majua 13	Getino Bed	26.01	8.38	30.51	0.46	90.94	91.71
La Majua 14	Getino Bed	60.34	10.51	65.99	0.48	94.43	94.86
La Majua 15	Getino Bed	-3.77	12.05	2.70	3.53	95.72	96.13
La Majua 16	Getino Bed	-5.26	11.66	1.01	1.24	95.11	95.65
La Majua 17	Getino Bed	-6.97	10.71	-1.22	0.85	94.66	95.30
La Majua 18	Getino Bed	7.08	13.88	14.53	0.33	95.39	95.78
La Majua 19	Getino Bed	-10.54	14.11	-2.96	0.78	95.79	96.21
La Majua 20	Getino Bed	10.06	7.31	13.98	0.42	94.08	94.04
La Majua 21	Getino Bed	26.30	1.24	26.96	0.49	76.15	75.16
La Majua 22	Getino Bed	3.97	4.37	6.31	0.39	91.86	92.40
La Majua 23	Getino Bed	2.56	8.86	7.31	0.26	95.09	95.58
La Majua 24	Getino Bed	1.30	8.10	5.64	0.19	94.78	95.32
La Majua 25	Getino Bed	2.45	8.08	6.79	0.27	93.80	94.39

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
La Majua 1	Barrios Fm	30.04	-6.93	-7.32	-6.92
La Majua 2	Getino Bed	87.91	0.74	-3.28	0.78
La Majua 3	Getino Bed	87.69	0.56	-2.89	0.60
La Majua 4	Getino Bed	86.65	1.97	-2.44	2.02
La Majua 5	Getino Bed	85.93	0.63	-2.87	0.67
La Majua 6	Getino Bed	87.10	4.85	-1.99	4.91
La Majua 7	Getino Bed	86.58	-0.55	-3.35	-0.51
La Majua 8	Getino Bed	85.34	3.54	-2.77	3.61
La Majua 9	Getino Bed	86.48	1.07	-1.91	1.13
La Majua 10	Getino Bed	85.93	0.03	-2.96	0.08
La Majua 11	Getino Bed	86.86	2.81	-2.23	2.88
La Majua 12	Getino Bed	79.19	0.07	-3.17	0.11
La Majua 13	Getino Bed	84.56	19.93	-14.56	19.96
La Majua 14	Getino Bed	88.05	53.46	-20.20	53.50
La Majua 15	Getino Bed	87.71	5.89	-3.16	5.94
La Majua 16	Getino Bed	86.03	3.34	-2.18	3.39
La Majua 17	Getino Bed	85.04	0.20	-1.65	0.26
La Majua 18	Getino Bed	88.25	17.71	-6.00	17.76
La Majua 19	Getino Bed	87.50	3.34	-0.78	3.40
La Majua 20	Getino Bed	94.60	4.73	-14.42	4.78
La Majua 21	Getino Bed	78.39	13.20	-13.50	13.21
La Majua 22	Getino Bed	86.63	-2.30	-8.94	-2.27
La Majua 23	Getino Bed	86.87	1.66	-8.11	1.71
La Majua 24	Getino Bed	86.31	-0.75	-7.79	-0.70
La Majua 25	Getino Bed	86.23	-0.27	-8.63	-0.22

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
La Majua 1	Barrios Fm	-7.01	3.17	-35.48	0.05
La Majua 2	Getino Bed	-2.50	3.55	-39.33	0.84
La Majua 3	Getino Bed	-2.07	3.41	-38.73	0.85
La Majua 4	Getino Bed	-1.50	3.35	-42.25	0.81
La Majua 5	Getino Bed	-1.98	3.52	-39.67	0.80
La Majua 6	Getino Bed	-0.96	3.16	-45.20	0.78
La Majua 7	Getino Bed	-2.56	3.48	-38.22	0.82
La Majua 8	Getino Bed	-1.76	2.64	-47.20	0.70
La Majua 9	Getino Bed	-0.95	3.13	-39.55	0.83
La Majua 10	Getino Bed	-2.10	3.34	-38.91	0.80
La Majua 11	Getino Bed	-1.26	3.11	-41.56	0.79
La Majua 12	Getino Bed	-1.69	3.74	-38.98	0.81
La Majua 13	Getino Bed	-13.54	1.06	-81.33	0.31
La Majua 14	Getino Bed	-19.30	-4.85	-152.33	0.21
La Majua 15	Getino Bed	-2.22	3.20	-48.40	0.73
La Majua 16	Getino Bed	-1.16	3.26	-43.94	0.77
La Majua 17	Getino Bed	-0.63	3.21	-39.69	0.84
La Majua 18	Getino Bed	-4.95	2.81	-70.03	0.55
La Majua 19	Getino Bed	0.30	3.31	-40.73	0.88
La Majua 20	Getino Bed	-13.88	3.39	-49.14	0.44
La Majua 21	Getino Bed	-13.02	1.55	-63.22	0.08
La Majua 22	Getino Bed	-8.38	3.26	-40.95	0.49
La Majua 23	Getino Bed	-7.32	3.55	-45.10	0.59
La Majua 24	Getino Bed	-7.02	3.40	-42.27	0.61
La Majua 25	Getino Bed	-7.81	3.62	-40.52	0.58

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
La Majua 1	Barrios Fm	13.64	24.68	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 2	Getino Bed	3.27	0.39	4.00	4.00	1.00	> D.L.	9.00
La Majua 3	Getino Bed	2.56	0.39	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 4	Getino Bed	3.32	0.45	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 5	Getino Bed	3.46	0.48	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 6	Getino Bed	3.74	0.51	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 7	Getino Bed	3.07	0.44	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 8	Getino Bed	4.23	0.71	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 9	Getino Bed	2.27	0.45	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 10	Getino Bed	3.04	0.50	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 11	Getino Bed	3.14	0.51	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 12	Getino Bed	2.93	0.57	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 13	Getino Bed	35.59	2.68	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 14	Getino Bed	72.25	3.92	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 15	Getino Bed	5.67	0.58	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 16	Getino Bed	3.83	0.54	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 17	Getino Bed	2.19	0.45	4.00	4.00	1.00	> D.L.	9.00
La Majua 18	Getino Bed	14.65	1.01	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 19	Getino Bed	1.87	0.35	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 20	Getino Bed	14.89	1.74	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 21	Getino Bed	79.16	12.75	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 22	Getino Bed	9.73	1.52	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 23	Getino Bed	8.67	1.09	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 24	Getino Bed	6.80	1.05	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 25	Getino Bed	7.16	1.16	4.00	4.00	1.00	> D.L.	9.00

3.2 La Majua 26 - 50

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
La Majua 26	Getino Bed	> D.L.	> D.L.	17.88	17.88	17.88
La Majua 27	Getino Bed	> D.L.	> D.L.	2.06	2.06	2.06
La Majua 28	Getino Bed	> D.L.	> D.L.	0.15	0.15	0.15
La Majua 29	Getino Bed	> D.L.	> D.L.	0.77	0.77	0.77
La Majua 30	Getino Bed	> D.L.	> D.L.	-0.34	-0.34	-0.34
La Majua 31	Getino Bed	> D.L.	> D.L.	-0.95	-0.95	-0.95
La Majua 32	Bernesga Mb.	70.82	35.51	41.02	147.35	76.53
La Majua 33	Bernesga Mb.	69.58	16.40	40.18	126.15	56.57
La Majua 34	Bernesga Mb.	63.62	30.10	36.42	130.14	66.52
La Majua 35	Bernesga Mb.	51.18	26.41	39.01	116.60	65.42
La Majua 36	Bernesga Mb.	> D.L.	> D.L.	35.13	35.13	35.13
La Majua 37	Bernesga Mb.	60.99	36.97	37.34	135.30	74.31
La Majua 38	Bernesga Mb.	73.21	44.44	38.90	156.56	83.35
La Majua 39	Bernesga Mb.	76.11	33.64	37.21	146.96	70.85
La Majua 40	Bernesga Mb.	74.68	36.53	36.54	147.76	73.08
La Majua 41	Bernesga Mb.	70.80	43.98	36.48	151.27	80.47
La Majua 42	Bernesga Mb.	46.29	47.72	34.86	128.87	82.58
La Majua 43	Bernesga Mb.	53.07	49.61	34.99	137.67	84.59
La Majua 44	Bernesga Mb.	> D.L.	21.84	36.57	58.41	58.41
La Majua 45	Bernesga Mb.	52.85	39.99	34.43	127.27	74.42
La Majua 46	Bernesga Mb.	> D.L.	44.59	36.69	81.28	81.28
La Majua 47	Bernesga Mb.	> D.L.	> D.L.	31.38	31.38	31.38
La Majua 48	Bernesga Mb.	63.25	28.38	35.33	126.97	63.71
La Majua 49	Bernesga Mb.	> D.L.	19.70	33.84	53.54	53.54
La Majua 50	Bernesga Mb.	54.39	16.45	30.79	101.63	47.24

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
La Majua 26	Getino Bed	> D.L.	> D.L.	26.89	26.89	26.89
La Majua 27	Getino Bed	> D.L.	> D.L.	3.11	3.11	3.11
La Majua 28	Getino Bed	> D.L.	> D.L.	0.23	0.23	0.23
La Majua 29	Getino Bed	> D.L.	> D.L.	1.16	1.16	1.16
La Majua 30	Getino Bed	> D.L.	> D.L.	-0.51	-0.51	-0.51
La Majua 31	Getino Bed	> D.L.	> D.L.	-1.43	-1.43	-1.43
La Majua 32	Bernesga Mb.	84.69	55.92	61.68	202.29	117.60
La Majua 33	Bernesga Mb.	83.20	25.82	60.41	169.43	86.23
La Majua 34	Bernesga Mb.	76.08	47.40	54.77	178.25	102.17
La Majua 35	Bernesga Mb.	61.20	41.59	58.67	161.45	100.25
La Majua 36	Bernesga Mb.	> D.L.	> D.L.	52.82	52.82	52.82
La Majua 37	Bernesga Mb.	72.93	58.23	56.15	187.31	114.38
La Majua 38	Bernesga Mb.	87.55	69.99	58.50	216.04	128.49
La Majua 39	Bernesga Mb.	91.01	52.97	55.96	199.95	108.94
La Majua 40	Bernesga Mb.	89.31	57.53	54.95	201.79	112.48
La Majua 41	Bernesga Mb.	84.67	69.27	54.86	208.79	124.13
La Majua 42	Bernesga Mb.	55.36	75.15	52.42	182.93	127.57
La Majua 43	Bernesga Mb.	63.47	78.12	52.61	194.20	130.73
La Majua 44	Bernesga Mb.	> D.L.	34.40	54.99	89.39	89.39
La Majua 45	Bernesga Mb.	63.20	62.97	51.78	177.95	114.75
La Majua 46	Bernesga Mb.	> D.L.	70.23	55.17	125.39	125.39
La Majua 47	Bernesga Mb.	> D.L.	> D.L.	47.19	47.19	47.19
La Majua 48	Bernesga Mb.	75.64	44.69	53.13	173.46	97.82
La Majua 49	Bernesga Mb.	> D.L.	31.02	50.89	81.91	81.91
La Majua 50	Bernesga Mb.	65.04	25.91	46.29	137.24	72.20

Sample	Formation	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al2O3*5	10Al2O3
La Majua 26	Getino Bed	> D.L.	> D.L.	> D.L.	< D.L.	< D.L.	14.45	8.30	60.12	120.24
La Majua 27	Getino Bed	> D.L.	> D.L.	> D.L.	< D.L.	< D.L.	9.31	13.08	43.91	87.82
La Majua 28	Getino Bed	> D.L.	> D.L.	> D.L.	< D.L.	< D.L.	15.52	24.91	76.11	152.21
La Majua 29	Getino Bed	> D.L.	> D.L.	> D.L.	< D.L.	< D.L.	2.12	5.79	8.71	17.42
La Majua 30	Getino Bed	> D.L.	> D.L.	> D.L.	< D.L.	< D.L.	1.13	4.92	4.43	8.87
La Majua 31	Getino Bed	> D.L.	> D.L.	> D.L.	< D.L.	< D.L.	-0.03	3.63	-0.99	-1.98
La Majua 32	Bernesga Mb.	105.87	211.73	5.93	3.67	4.91	34.99	4.81	148.94	297.89
La Majua 33	Bernesga Mb.	104.00	208.00	8.25	3.59	4.82	37.56	7.97	162.28	324.56
La Majua 34	Bernesga Mb.	95.10	190.20	5.56	3.24	4.34	33.70	5.85	145.22	290.45
La Majua 35	Bernesga Mb.	76.50	153.00	4.18	2.38	3.19	39.06	6.58	170.47	340.93
La Majua 36	Bernesga Mb.	> D.L.	> D.L.	> D.L.	< D.L.	< D.L.	35.65	11.51	155.76	311.53
La Majua 37	Bernesga Mb.	91.17	182.33	4.26	3.07	4.12	34.63	4.94	149.36	298.71
La Majua 38	Bernesga Mb.	109.43	218.87	5.11	3.80	5.09	36.47	4.19	157.62	315.24
La Majua 39	Bernesga Mb.	113.77	227.53	6.96	3.95	5.29	35.79	5.14	155.20	310.41
La Majua 40	Bernesga Mb.	111.63	223.27	6.37	3.88	5.19	36.65	5.25	159.92	319.83
La Majua 41	Bernesga Mb.	105.83	211.67	4.81	3.66	4.91	35.53	4.69	154.37	308.73
La Majua 42	Bernesga Mb.	69.20	138.40	0.66	1.98	2.65	32.67	3.60	141.00	282.01
La Majua 43	Bernesga Mb.	79.33	158.67	1.42	2.52	3.38	33.29	3.79	144.04	288.08
La Majua 44	Bernesga Mb.	> D.L.	> D.L.	-2.87	< D.L.	< D.L.	36.74	6.76	160.34	320.68
La Majua 45	Bernesga Mb.	79.00	158.00	2.65	2.51	3.36	33.48	5.23	145.31	290.63
La Majua 46	Bernesga Mb.	> D.L.	> D.L.	-5.85	< D.L.	< D.L.	36.22	4.98	157.67	315.35
La Majua 47	Bernesga Mb.	> D.L.	> D.L.	> D.L.	< D.L.	< D.L.	33.74	10.96	148.46	296.92
La Majua 48	Bernesga Mb.	94.55	189.10	5.73	3.22	4.31	37.09	6.66	162.84	325.68
La Majua 49	Bernesga Mb.	> D.L.	> D.L.	-2.59	< D.L.	< D.L.	36.84	7.95	162.47	324.95
La Majua 50	Bernesga Mb.	81.30	162.60	5.97	2.62	3.51	34.45	7.38	152.38	304.75

Sample	Formation	15Al2O3	Al2O3/10	K2O *5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	200TiO2	300TiO2	K2O/Al2O3
La Majua 26	Getino Bed	180.36	1.20	8.40	> D.L.	23.01	26053.05	4.20	5.40	183.53	275.29	0.14
La Majua 27	Getino Bed	131.73	0.88	0.97	0.37	32.64	57057.83	6.87	8.84	172.78	259.17	0.02
La Majua 28	Getino Bed	228.32	1.52	0.07	1.37	52.45	117407.71	13.75	17.70	242.77	364.16	0.00
La Majua 29	Getino Bed	26.13	0.17	0.36	> D.L.	9.80	31368.45	3.37	4.33	71.99	107.98	0.04
La Majua 30	Getino Bed	13.30	0.09	-0.16	> D.L.	> D.L.	33256.79	3.44	4.43	224.67	337.00	-0.04
La Majua 31	Getino Bed	-2.97	-0.02	-0.45	> D.L.	> D.L.	25645.61	2.54	3.27	54.79	82.18	0.45
La Majua 32	Bernesga Mb.	446.83	2.98	19.28	> D.L.	> D.L.	-5768.75	3.36	4.33	242.30	363.45	0.13
La Majua 33	Bernesga Mb.	486.84	3.25	18.88	> D.L.	9.82	5949.96	4.89	6.29	232.55	348.83	0.12
La Majua 34	Bernesga Mb.	435.67	2.90	17.11	> D.L.	> D.L.	2495.54	4.09	5.27	237.81	356.72	0.12
La Majua 35	Bernesga Mb.	511.40	3.41	18.33	> D.L.	10.76	-6580.81	3.85	4.96	239.88	359.82	0.11
La Majua 36	Bernesga Mb.	467.29	3.12	16.51	> D.L.	> D.L.	39292.22	8.05	10.36	211.87	317.80	0.11
La Majua 37	Bernesga Mb.	448.07	2.99	17.55	> D.L.	> D.L.	-4946.07	3.46	4.45	237.85	356.77	0.12
La Majua 38	Bernesga Mb.	472.86	3.15	18.28	> D.L.	> D.L.	-12393.93	2.93	3.77	239.32	358.98	0.12
La Majua 39	Bernesga Mb.	465.61	3.10	17.49	> D.L.	> D.L.	-5114.07	3.60	4.63	236.62	354.93	0.11
La Majua 40	Bernesga Mb.	479.75	3.20	17.17	> D.L.	9.33	-12123.34	3.02	3.88	233.36	350.03	0.11
La Majua 41	Bernesga Mb.	463.10	3.09	17.14	> D.L.	9.34	-14607.06	2.62	3.38	235.30	352.95	0.11
La Majua 42	Bernesga Mb.	423.01	2.82	16.38	> D.L.	> D.L.	-12151.46	2.52	3.24	230.69	346.03	0.12
La Majua 43	Bernesga Mb.	432.12	2.88	16.44	> D.L.	> D.L.	-11577.64	2.65	3.41	253.04	379.57	0.11
La Majua 44	Bernesga Mb.	481.02	3.21	17.19	> D.L.	> D.L.	4863.59	4.73	6.08	226.45	339.67	0.11
La Majua 45	Bernesga Mb.	435.94	2.91	16.18	> D.L.	9.77	-8741.85	2.97	3.82	239.83	359.75	0.11
La Majua 46	Bernesga Mb.	473.02	3.15	17.24	> D.L.	10.53	-14267.55	2.75	3.53	240.29	360.44	0.11
La Majua 47	Bernesga Mb.	445.38	2.97	14.75	> D.L.	> D.L.	37358.06	7.66	9.86	208.34	312.50	0.10
La Majua 48	Bernesga Mb.	488.53	3.26	16.60	> D.L.	9.39	-3045.32	4.00	5.15	217.82	326.72	0.10
La Majua 49	Bernesga Mb.	487.42	3.25	15.90	> D.L.	9.57	5926.24	4.89	6.29	223.07	334.60	0.10
La Majua 50	Bernesga Mb.	457.13	3.05	14.47	> D.L.	> D.L.	11301.54	5.16	6.64	213.78	320.68	0.09

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
La Majua 26	Getino Bed	-0.85	0.19	0.78	0.74	0.44	2.25	-0.35	16.10
La Majua 27	Getino Bed	-1.66	0.37	0.99	0.86	1.72	0.58	0.24	16.88
La Majua 28	Getino Bed	-3.02	0.34	1.29	0.45	19.76	0.05	1.30	15.69
La Majua 29	Getino Bed	-1.38	0.56	0.68	1.68	4.15	0.24	0.62	5.78
La Majua 30	Getino Bed	< D.L.	> D.L.	0.69	1.96	-8.52	-0.12	< D.L.	3.26
La Majua 31	Getino Bed	-0.34	> D.L.	0.56	< D.L.	-2.86	-0.35	< D.L.	-0.77
La Majua 32	Bernesga Mb.	-0.89	> D.L.	0.68	0.23	0.35	2.86	-0.46	22.08
La Majua 33	Bernesga Mb.	-0.93	0.03	0.84	0.19	0.35	2.85	-0.45	24.46
La Majua 34	Bernesga Mb.	-0.93	> D.L.	0.77	0.24	0.36	2.78	-0.44	23.63
La Majua 35	Bernesga Mb.	-0.97	0.03	0.74	0.19	0.35	2.83	-0.45	26.29
La Majua 36	Bernesga Mb.	-0.97	> D.L.	1.06	0.17	0.36	2.76	-0.44	26.06
La Majua 37	Bernesga Mb.	-0.93	> D.L.	0.69	0.23	0.36	2.80	-0.45	23.84
La Majua 38	Bernesga Mb.	-0.94	> D.L.	0.62	0.23	0.35	2.83	-0.45	24.36
La Majua 39	Bernesga Mb.	-0.95	> D.L.	0.71	0.23	0.36	2.80	-0.45	24.84
La Majua 40	Bernesga Mb.	-0.97	0.03	0.64	0.22	0.36	2.79	-0.45	25.95
La Majua 41	Bernesga Mb.	-0.95	0.03	0.57	0.23	0.36	2.79	-0.45	25.08
La Majua 42	Bernesga Mb.	-0.93	> D.L.	0.56	0.26	0.36	2.76	-0.44	23.73
La Majua 43	Bernesga Mb.	-0.94	> D.L.	0.58	0.27	0.36	2.76	-0.44	24.17
La Majua 44	Bernesga Mb.	-0.97	> D.L.	0.83	0.20	0.36	2.79	-0.45	26.01
La Majua 45	Bernesga Mb.	-0.95	0.03	0.63	0.26	0.36	2.75	-0.44	24.68
La Majua 46	Bernesga Mb.	-0.96	0.03	0.59	0.23	0.36	2.79	-0.45	25.51
La Majua 47	Bernesga Mb.	-1.00	> D.L.	1.04	0.19	0.37	2.69	-0.43	27.04
La Majua 48	Bernesga Mb.	-0.99	0.03	0.76	0.19	0.36	2.77	-0.44	27.12
La Majua 49	Bernesga Mb.	-1.01	0.03	0.84	0.21	0.37	2.74	-0.44	27.96
La Majua 50	Bernesga Mb.	-1.02	> D.L.	0.87	0.18	0.37	2.67	-0.43	28.15

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
La Majua 26	Getino Bed	0.75	2.43	8.30	5.55	0.74	0.18	0.50	20.91	0.00
La Majua 27	Getino Bed	0.52	0.71	13.08	7.32	0.86	0.14	1.12	> D.L.	> D.L.
La Majua 28	Getino Bed	0.97	0.98	24.91	2.85	0.45	0.35	1.29	> D.L.	> D.L.
La Majua 29	Getino Bed	0.30	0.37	5.79	47.56	1.68	0.02	2.76	> D.L.	> D.L.
La Majua 30	Getino Bed	0.27	0.24	4.92	90.82	1.96	0.01	5.55	> D.L.	> D.L.
La Majua 31	Getino Bed	0.26	0.17	3.63	-454.49	< D.L.	0.00	-18.35	> D.L.	> D.L.
La Majua 32	Bernesga Mb.	1.35	5.20	4.81	1.71	0.23	0.58	0.16	36.68	0.00
La Majua 33	Bernesga Mb.	1.33	5.10	7.97	1.54	0.19	0.65	0.22	35.72	0.00
La Majua 34	Bernesga Mb.	1.23	4.65	5.85	1.72	0.24	0.58	0.20	38.77	0.00
La Majua 35	Bernesga Mb.	1.30	4.96	6.58	1.55	0.19	0.64	0.16	39.35	0.00
La Majua 36	Bernesga Mb.	1.20	4.50	11.51	1.48	0.17	0.68	0.37	35.16	0.00
La Majua 37	Bernesga Mb.	1.25	4.76	4.94	1.70	0.23	0.59	0.17	42.15	0.01
La Majua 38	Bernesga Mb.	1.29	4.95	4.19	1.69	0.23	0.59	0.13	42.63	0.01
La Majua 39	Bernesga Mb.	1.25	4.75	5.14	1.69	0.23	0.59	0.17	40.89	0.00
La Majua 40	Bernesga Mb.	1.23	4.67	5.25	1.66	0.22	0.60	0.14	44.64	0.01
La Majua 41	Bernesga Mb.	1.23	4.66	4.69	1.72	0.23	0.58	0.12	46.31	0.01
La Majua 42	Bernesga Mb.	1.19	4.46	3.60	1.84	0.26	0.54	0.13	47.62	0.01
La Majua 43	Bernesga Mb.	1.19	4.48	3.79	1.84	0.27	0.54	0.13	45.01	0.01
La Majua 44	Bernesga Mb.	1.23	4.67	6.76	1.58	0.20	0.63	0.21	39.84	0.00
La Majua 45	Bernesga Mb.	1.18	4.41	5.23	1.82	0.26	0.55	0.15	43.99	0.01
La Majua 46	Bernesga Mb.	1.24	4.68	4.98	1.72	0.23	0.58	0.12	45.00	0.01
La Majua 47	Bernesga Mb.	1.10	4.05	10.96	1.53	0.19	0.65	0.37	40.11	0.00
La Majua 48	Bernesga Mb.	1.20	4.52	6.66	1.54	0.19	0.65	0.18	43.56	0.01
La Majua 49	Bernesga Mb.	1.16	4.34	7.95	1.60	0.21	0.62	0.22	42.30	0.01
La Majua 50	Bernesga Mb.	1.08	3.98	7.38	1.53	0.18	0.66	0.24	44.07	0.01

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Zr/Sc	Cr/Th	Th/Sc
La Majua 26	Getino Bed	13.10	0.07	437.68	> D.L.	125.62	0.47	1.59	4.25	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.
La Majua 27	Getino Bed	10.17	0.06	346.78	> D.L.	127.07	0.65	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.
La Majua 28	Getino Bed	12.54	0.06	359.52	> D.L.	267.25	1.07	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.
La Majua 29	Getino Bed	4.84	-0.36	-2177.83	> D.L.	39.94	0.87	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.
La Majua 30	Getino Bed	0.79	1.29	7730.91	> D.L.	77.30	1.26	> D.L.	> D.L.	> D.L.	1.72	> D.L.	3.60	> D.L.	> D.L.
La Majua 31	Getino Bed	-0.72	-0.06	-330.52	> D.L.	26.57	0.77	> D.L.	> D.L.	> D.L.	2.26	> D.L.	3.11	> D.L.	> D.L.
La Majua 32	Bernesga Mb.	24.59	0.06	363.24	> D.L.	198.46	0.29	0.96	1.55	> D.L.	> D.L.	4.66	> D.L.	9.73	> D.L.
La Majua 33	Bernesga Mb.	27.91	0.07	393.61	> D.L.	224.08	0.45	0.91	1.67	> D.L.	> D.L.	2.15	> D.L.	19.01	> D.L.
La Majua 34	Bernesga Mb.	24.43	0.06	366.78	> D.L.	227.01	0.44	0.98	1.64	> D.L.	> D.L.	3.95	> D.L.	11.01	> D.L.
La Majua 35	Bernesga Mb.	28.43	0.07	393.82	> D.L.	211.95	0.40	0.88	1.49	> D.L.	> D.L.	3.47	> D.L.	12.23	> D.L.
La Majua 36	Bernesga Mb.	29.41	0.07	421.08	> D.L.	237.02	0.54	1.04	1.86	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.
La Majua 37	Bernesga Mb.	25.12	0.06	387.29	> D.L.	217.10	0.38	0.92	1.44	> D.L.	> D.L.	4.85	> D.L.	9.37	> D.L.
La Majua 38	Bernesga Mb.	26.34	0.06	376.59	> D.L.	198.71	0.31	0.85	1.37	> D.L.	12.42	5.83	6.89	7.56	1.02
La Majua 39	Bernesga Mb.	26.24	0.06	373.72	> D.L.	202.23	0.33	0.91	1.55	> D.L.	11.63	4.41	6.69	9.78	0.70
La Majua 40	Bernesga Mb.	27.41	0.06	379.14	> D.L.	208.62	0.34	0.92	1.33	> D.L.	> D.L.	4.79	> D.L.	9.76	> D.L.
La Majua 41	Bernesga Mb.	26.24	0.06	360.17	> D.L.	216.17	0.33	0.94	1.29	> D.L.	11.69	5.77	6.84	8.62	0.99
La Majua 42	Bernesga Mb.	24.45	0.06	364.27	> D.L.	191.77	0.24	0.91	1.34	> D.L.	> D.L.	6.26	> D.L.	7.53	> D.L.
La Majua 43	Bernesga Mb.	22.77	0.06	364.14	> D.L.	199.68	0.31	0.95	1.29	> D.L.	8.60	6.51	6.39	7.17	0.88
La Majua 44	Bernesga Mb.	28.32	0.06	388.94	> D.L.	208.07	0.46	0.82	1.52	> D.L.	> D.L.	2.87	> D.L.	12.99	> D.L.
La Majua 45	Bernesga Mb.	24.24	0.07	399.30	> D.L.	195.06	0.35	0.93	1.25	> D.L.	10.38	5.25	7.98	8.40	0.92
La Majua 46	Bernesga Mb.	26.25	0.06	371.02	> D.L.	190.47	0.28	0.89	1.23	> D.L.	> D.L.	5.85	> D.L.	7.85	> D.L.
La Majua 47	Bernesga Mb.	28.50	0.06	351.24	0.60	344.74	1.17	1.05	1.60	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.
La Majua 48	Bernesga Mb.	29.90	0.07	392.66	0.77	310.59	0.94	0.93	1.29	> D.L.	7.53	3.72	4.21	12.04	0.45
La Majua 49	Bernesga Mb.	29.13	0.06	369.20	0.61	252.47	0.73	0.90	1.34	> D.L.	> D.L.	2.59	> D.L.	15.60	> D.L.
La Majua 50	Bernesga Mb.	28.51	0.07	389.36	0.60	346.45	1.37	0.88	1.34	> D.L.	4.27	2.16	2.88	17.36	0.16

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
La Majua 26	Getino Bed	4.55	0.22	0.03	12.73	2.86	2.82	> D.L.	0.37	2.67
La Majua 27	Getino Bed	> D.L.	> D.L.	0.03	10.50	6.66	> D.L.	> D.L.	0.15	6.72
La Majua 28	Getino Bed	> D.L.	> D.L.	0.03	9.46	2.63	> D.L.	> D.L.	0.40	2.50
La Majua 29	Getino Bed	> D.L.	> D.L.	0.07	-143.74	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.
La Majua 30	Getino Bed	> D.L.	> D.L.	0.02	147.43	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.
La Majua 31	Getino Bed	> D.L.	> D.L.	0.03	-9.54	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.
La Majua 32	Bernesga Mb.	0.95	1.05	0.02	6.72	0.99	2.42	> D.L.	0.62	1.61
La Majua 33	Bernesga Mb.	0.84	1.20	0.02	6.37	0.92	3.70	> D.L.	0.54	1.84
La Majua 34	Bernesga Mb.	0.98	1.02	0.02	6.70	1.00	2.59	> D.L.	0.60	1.67
La Majua 35	Bernesga Mb.	0.80	1.25	0.02	6.32	0.91	9.40	> D.L.	0.59	1.69
La Majua 36	Bernesga Mb.	0.88	1.14	0.02	6.78	0.85	5.94	> D.L.	0.56	1.79
La Majua 37	Bernesga Mb.	0.80	1.25	0.02	6.43	0.87	3.18	> D.L.	0.64	1.56
La Majua 38	Bernesga Mb.	0.76	1.32	0.02	6.20	0.89	3.47	> D.L.	0.62	1.61
La Majua 39	Bernesga Mb.	0.89	1.12	0.02	6.72	0.98	3.24	> D.L.	0.58	1.71
La Majua 40	Bernesga Mb.	0.75	1.33	0.02	6.27	0.82	2.71	> D.L.	0.69	1.45
La Majua 41	Bernesga Mb.	0.76	1.32	0.02	6.13	0.80	2.65	> D.L.	0.73	1.37
La Majua 42	Bernesga Mb.	0.79	1.26	0.02	6.51	0.87	2.97	> D.L.	0.68	1.48
La Majua 43	Bernesga Mb.	0.96	1.05	0.02	6.80	1.01	10.83	> D.L.	0.73	1.36
La Majua 44	Bernesga Mb.	0.79	1.26	0.02	6.23	0.97	4.49	> D.L.	0.54	1.86
La Majua 45	Bernesga Mb.	0.96	1.04	0.02	7.60	1.03	6.98	> D.L.	0.74	1.35
La Majua 46	Bernesga Mb.	0.80	1.26	0.02	6.36	0.90	6.29	> D.L.	0.72	1.39
La Majua 47	Bernesga Mb.	0.92	1.09	0.02	6.11	0.88	5.64	> D.L.	0.66	1.53
La Majua 48	Bernesga Mb.	0.72	1.39	0.02	6.27	0.78	2.95	1.39	0.72	1.39
La Majua 49	Bernesga Mb.	0.86	1.16	0.02	6.38	0.95	3.57	0.74	0.67	1.49
La Majua 50	Bernesga Mb.	0.90	1.11	0.02	7.00	1.02	3.75	> D.L.	0.66	1.52

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
La Majua 26	Getino Bed	3.63	> D.L.	23.47	> D.L.	> D.L.	> D.L.	10.95	8.80
La Majua 27	Getino Bed	7.91	> D.L.	34.04	> D.L.	> D.L.	4.90	22.28	5.06
La Majua 28	Getino Bed	11.36	> D.L.	22.59	> D.L.	> D.L.	5.53	24.12	9.05
La Majua 29	Getino Bed	60.48	> D.L.	49.79	> D.L.	> D.L.	22.33	43.33	> D.L.
La Majua 30	Getino Bed	250.22	> D.L.	130.96	> D.L.	> D.L.	30.32	164.75	> D.L.
La Majua 31	Getino Bed	-121.30	> D.L.	-328.08	> D.L.	> D.L.	-92.74	-253.78	> D.L.
La Majua 32	Bernesga Mb.	3.34	0.67	13.88	> D.L.	> D.L.	1.00	3.96	8.62
La Majua 33	Bernesga Mb.	3.80	0.61	13.11	> D.L.	> D.L.	1.22	5.90	7.14
La Majua 34	Bernesga Mb.	3.79	0.62	14.16	> D.L.	> D.L.	1.80	6.28	8.49
La Majua 35	Bernesga Mb.	3.14	0.42	11.88	> D.L.	> D.L.	1.94	4.70	7.04
La Majua 36	Bernesga Mb.	4.75	> D.L.	13.06	> D.L.	> D.L.	3.62	7.08	7.29
La Majua 37	Bernesga Mb.	2.47	0.58	13.45	> D.L.	> D.L.	1.62	5.10	8.63
La Majua 38	Bernesga Mb.	1.77	0.66	12.77	> D.L.	> D.L.	1.01	3.98	7.93
La Majua 39	Bernesga Mb.	2.31	0.69	13.49	> D.L.	> D.L.	1.75	4.42	7.89
La Majua 40	Bernesga Mb.	1.71	0.66	12.02	> D.L.	> D.L.	0.77	4.03	8.30
La Majua 41	Bernesga Mb.	1.25	0.65	12.54	> D.L.	> D.L.	> D.L.	4.09	9.14
La Majua 42	Bernesga Mb.	1.60	0.46	14.05	> D.L.	> D.L.	0.67	3.36	9.48
La Majua 43	Bernesga Mb.	1.32	0.52	12.50	> D.L.	> D.L.	0.72	3.92	9.18
La Majua 44	Bernesga Mb.	2.33	> D.L.	12.26	> D.L.	> D.L.	1.96	5.67	6.58
La Majua 45	Bernesga Mb.	1.35	0.51	11.57	> D.L.	> D.L.	0.95	4.08	8.60
La Majua 46	Bernesga Mb.	1.15	> D.L.	11.46	> D.L.	> D.L.	0.79	3.16	8.26
La Majua 47	Bernesga Mb.	2.53	> D.L.	12.05	6.29	> D.L.	3.80	14.04	7.89
La Majua 48	Bernesga Mb.	1.18	0.55	10.83	3.23	> D.L.	2.50	10.22	7.80
La Majua 49	Bernesga Mb.	1.43	> D.L.	10.48	4.16	> D.L.	2.54	7.65	7.03
La Majua 50	Bernesga Mb.	1.74	0.50	10.57	7.04	> D.L.	4.24	14.51	6.97

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
La Majua 26	Getino Bed	> D.L.	26.84	95.46	15.56	25.14	0.68	65.23	> D.L.
La Majua 27	Getino Bed	> D.L.	34.08	182.30	45.96	33.73	0.60	124.58	> D.L.
La Majua 28	Getino Bed	> D.L.	20.02	168.63	51.32	23.78	0.48	115.24	> D.L.
La Majua 29	Getino Bed	> D.L.	171.03	511.66	3081.68	154.48	0.53	349.66	> D.L.
La Majua 30	Getino Bed	> D.L.	340.04	1149.41	33349.53	273.65	0.44	785.49	> D.L.
La Majua 31	Getino Bed	> D.L.	-1578.35	-4326.35	-37379.75	-452.76	0.56	-2956.55	> D.L.
La Majua 32	Bernesga Mb.	> D.L.	15.28	28.13	21.69	8.52	0.78	19.22	> D.L.
La Majua 33	Bernesga Mb.	> D.L.	13.30	26.18	29.05	6.56	0.69	17.89	> D.L.
La Majua 34	Bernesga Mb.	> D.L.	15.92	28.72	22.32	8.47	0.69	19.62	> D.L.
La Majua 35	Bernesga Mb.	> D.L.	12.75	24.28	75.19	6.40	0.72	16.60	> D.L.
La Majua 36	Bernesga Mb.	> D.L.	13.29	27.88	41.83	6.20	0.65	19.06	> D.L.
La Majua 37	Bernesga Mb.	> D.L.	14.49	28.12	29.78	7.49	0.73	19.22	> D.L.
La Majua 38	Bernesga Mb.	> D.L.	13.39	26.20	32.40	7.08	0.76	17.90	> D.L.
La Majua 39	Bernesga Mb.	> D.L.	13.60	26.83	28.22	7.76	0.75	18.34	> D.L.
La Majua 40	Bernesga Mb.	> D.L.	12.94	25.63	24.58	6.83	0.75	17.52	> D.L.
La Majua 41	Bernesga Mb.	> D.L.	13.49	26.57	25.80	7.34	0.75	18.16	> D.L.
La Majua 42	Bernesga Mb.	> D.L.	15.09	29.07	31.01	8.28	0.81	19.87	> D.L.
La Majua 43	Bernesga Mb.	> D.L.	14.19	28.89	105.09	9.29	0.76	19.74	> D.L.
La Majua 44	Bernesga Mb.	> D.L.	12.58	28.77	36.20	6.41	0.68	19.66	> D.L.
La Majua 45	Bernesga Mb.	> D.L.	14.08	28.61	64.56	8.89	0.74	19.55	> D.L.
La Majua 46	Bernesga Mb.	> D.L.	12.80	26.55	58.43	7.39	0.78	18.14	> D.L.
La Majua 47	Bernesga Mb.	> D.L.	11.51	168.08	42.45	6.91	0.46	114.86	> D.L.
La Majua 48	Bernesga Mb.	> D.L.	10.67	61.50	24.76	6.05	0.51	42.03	> D.L.
La Majua 49	Bernesga Mb.	> D.L.	10.56	53.88	27.95	6.72	0.58	36.82	> D.L.
La Majua 50	Bernesga Mb.	> D.L.	11.34	173.51	29.64	7.14	0.42	118.58	> D.L.

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
La Majua 26	Getino Bed	> D.L.	> D.L.	1.14	> D.L.	> D.L.	3.57	0.55	2.31	0.01	> D.L.	> D.L.
La Majua 27	Getino Bed	> D.L.	> D.L.	0.99	> D.L.	> D.L.	50.60	1.70	3.68	0.00	> D.L.	> D.L.
La Majua 28	Getino Bed	> D.L.	> D.L.	1.19	> D.L.	> D.L.	1363.33	3.13	9.15	0.01	0.12	1.15
La Majua 29	Getino Bed	> D.L.	> D.L.	0.90	> D.L.	> D.L.	66.39	1.82	5.58	> D.L.	0.07	0.66
La Majua 30	Getino Bed	> D.L.	> D.L.	0.80	> D.L.	> D.L.	-154.07	< D.L.	11.74	> D.L.	0.22	2.22
La Majua 31	Getino Bed	> D.L.	> D.L.	0.29	> D.L.	> D.L.	-40.56	< D.L.	1.27	> D.L.	0.03	0.35
La Majua 32	Bernesga Mb.	1.32	0.76	1.14	12.69	> D.L.	1.25	0.10	5.26	0.01	> D.L.	> D.L.
La Majua 33	Bernesga Mb.	0.62	1.61	1.08	10.84	> D.L.	1.85	0.27	6.53	0.01	> D.L.	> D.L.
La Majua 34	Bernesga Mb.	1.25	0.80	1.07	13.70	> D.L.	1.71	0.23	5.83	0.01	> D.L.	> D.L.
La Majua 35	Bernesga Mb.	1.36	0.74	1.13	15.09	> D.L.	1.50	0.18	5.66	0.01	> D.L.	> D.L.
La Majua 36	Bernesga Mb.	> D.L.	> D.L.	1.00	> D.L.	> D.L.	3.49	0.54	7.83	0.01	0.05	0.52
La Majua 37	Bernesga Mb.	1.60	0.63	1.16	12.98	> D.L.	1.41	0.15	3.90	0.01	> D.L.	> D.L.
La Majua 38	Bernesga Mb.	1.60	0.63	1.23	10.79	> D.L.	1.15	0.06	2.96	0.01	> D.L.	> D.L.
La Majua 39	Bernesga Mb.	1.16	0.86	1.21	11.21	> D.L.	1.47	0.17	3.80	0.01	> D.L.	> D.L.
La Majua 40	Bernesga Mb.	1.29	0.78	1.23	10.36	> D.L.	1.26	0.10	2.90	0.01	0.08	0.80
La Majua 41	Bernesga Mb.	1.64	0.61	1.26	11.34	> D.L.	1.09	0.04	2.04	0.01	0.06	0.61
La Majua 42	Bernesga Mb.	2.71	0.37	1.24	17.87	> D.L.	1.10	0.04	2.39	0.01	> D.L.	> D.L.
La Majua 43	Bernesga Mb.	2.46	0.41	1.34	17.85	> D.L.	1.15	0.06	2.01	0.01	> D.L.	> D.L.
La Majua 44	Bernesga Mb.	> D.L.	> D.L.	1.15	> D.L.	> D.L.	1.97	0.29	3.96	0.01	> D.L.	> D.L.
La Majua 45	Bernesga Mb.	1.99	0.50	1.29	17.31	> D.L.	1.31	0.12	2.07	0.01	> D.L.	> D.L.
La Majua 46	Bernesga Mb.	> D.L.	> D.L.	1.30	> D.L.	> D.L.	1.14	0.06	1.91	0.01	> D.L.	> D.L.
La Majua 47	Bernesga Mb.	> D.L.	> D.L.	1.25	> D.L.	> D.L.	3.72	0.57	3.98	0.01	> D.L.	> D.L.
La Majua 48	Bernesga Mb.	1.18	0.85	1.35	11.03	> D.L.	1.72	0.24	2.04	0.01	> D.L.	> D.L.
La Majua 49	Bernesga Mb.	> D.L.	> D.L.	1.38	> D.L.	> D.L.	2.20	0.34	2.46	0.01	> D.L.	> D.L.
La Majua 50	Bernesga Mb.	0.80	1.26	1.33	14.16	> D.L.	2.55	0.41	2.81	0.01	> D.L.	> D.L.

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
La Majua 26	Getino Bed	> D.L.	> D.L.	> D.L.	> D.L.	5.56	16.00	375394.26	696.50	-1.06
La Majua 27	Getino Bed	> D.L.	> D.L.	> D.L.	> D.L.	5.20	15.68	346822.93	1263.17	10.86
La Majua 28	Getino Bed	2307.05	0.17	0.23	> D.L.	7.35	19.15	283095.23	2389.00	24.49
La Majua 29	Getino Bed	1325.26	0.10	0.13	> D.L.	2.16	14.24	396435.89	605.28	8.29
La Majua 30	Getino Bed	4444.07	0.33	0.44	> D.L.	6.73	12.84	381054.32	915.28	9.51
La Majua 31	Getino Bed	694.11	0.05	0.07	> D.L.	1.64	4.74	419220.13	362.80	8.00
La Majua 32	Bernesga Mb.	> D.L.	> D.L.	> D.L.	5.93	7.40	13.43	395771.36	782.10	-24.13
La Majua 33	Bernesga Mb.	> D.L.	> D.L.	> D.L.	8.25	7.09	11.27	406031.08	1223.20	-22.55
La Majua 34	Bernesga Mb.	> D.L.	> D.L.	> D.L.	5.56	7.26	13.03	387361.19	1242.10	-21.04
La Majua 35	Bernesga Mb.	> D.L.	> D.L.	> D.L.	4.18	7.32	11.54	428211.60	1199.23	-27.61
La Majua 36	Bernesga Mb.	1038.47	0.08	0.10	> D.L.	6.47	10.22	380401.71	1765.57	-11.37
La Majua 37	Bernesga Mb.	> D.L.	> D.L.	> D.L.	4.26	7.26	11.83	395402.28	1063.10	-23.94
La Majua 38	Bernesga Mb.	> D.L.	> D.L.	> D.L.	5.11	7.30	11.81	415656.69	833.73	-27.46
La Majua 39	Bernesga Mb.	> D.L.	> D.L.	> D.L.	6.96	7.22	12.76	409001.42	1014.47	-24.87
La Majua 40	Bernesga Mb.	1609.27	0.12	0.16	6.37	7.13	11.57	416726.41	811.93	-27.72
La Majua 41	Bernesga Mb.	1210.58	0.09	0.12	4.81	7.20	12.00	411016.45	668.77	-27.65
La Majua 42	Bernesga Mb.	> D.L.	> D.L.	> D.L.	0.66	7.06	12.36	391375.38	602.30	-24.89
La Majua 43	Bernesga Mb.	> D.L.	> D.L.	> D.L.	1.42	7.72	14.16	400433.71	707.17	-25.17
La Majua 44	Bernesga Mb.	> D.L.	> D.L.	> D.L.	-2.87	6.90	10.87	406659.12	1295.67	-22.59
La Majua 45	Bernesga Mb.	> D.L.	> D.L.	> D.L.	2.65	7.32	13.68	401419.24	773.90	-24.49
La Majua 46	Bernesga Mb.	> D.L.	> D.L.	> D.L.	-5.85	7.34	12.34	419788.83	658.67	-28.04
La Majua 47	Bernesga Mb.	> D.L.	> D.L.	> D.L.	> D.L.	6.37	10.85	369873.17	2803.67	-10.86
La Majua 48	Bernesga Mb.	> D.L.	> D.L.	> D.L.	5.73	6.66	10.43	406951.32	3458.32	-25.38
La Majua 49	Bernesga Mb.	> D.L.	> D.L.	> D.L.	-2.59	6.81	11.55	415520.28	3524.95	-22.58
La Majua 50	Bernesga Mb.	> D.L.	> D.L.	> D.L.	5.97	6.52	11.51	378683.22	3025.03	-19.42

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
La Majua 26	Getino Bed	-0.49	6.49	2.99	-0.20	93.27	94.15
La Majua 27	Getino Bed	5.08	4.74	7.62	0.40	94.29	94.41
La Majua 28	Getino Bed	11.45	8.22	15.86	0.42	94.00	94.01
La Majua 29	Getino Bed	3.87	0.94	4.38	0.47	84.72	85.26
La Majua 30	Getino Bed	4.44	0.48	4.70	0.49	77.14	76.51
La Majua 31	Getino Bed	3.74	-0.11	3.68	0.50	> D.L.	> D.L.
La Majua 32	Bernesga Mb.	-11.28	16.09	-2.64	0.81	95.06	95.67
La Majua 33	Bernesga Mb.	-10.54	17.53	-1.12	0.90	95.58	96.07
La Majua 34	Bernesga Mb.	-9.83	15.68	-1.41	0.87	95.42	95.94
La Majua 35	Bernesga Mb.	-12.90	18.41	-3.01	0.81	95.91	96.34
La Majua 36	Bernesga Mb.	-5.31	16.82	3.72	3.34	95.88	96.30
La Majua 37	Bernesga Mb.	-11.19	16.13	-2.52	0.82	95.46	95.97
La Majua 38	Bernesga Mb.	-12.83	17.02	-3.69	0.78	95.56	96.06
La Majua 39	Bernesga Mb.	-11.62	16.76	-2.62	0.82	95.66	96.13
La Majua 40	Bernesga Mb.	-12.95	17.27	-3.68	0.78	95.86	96.29
La Majua 41	Bernesga Mb.	-12.92	16.67	-3.97	0.77	95.71	96.17
La Majua 42	Bernesga Mb.	-11.63	15.23	-3.45	0.77	95.45	95.96
La Majua 43	Bernesga Mb.	-11.76	15.56	-3.41	0.78	95.54	96.03
La Majua 44	Bernesga Mb.	-10.56	17.32	-1.26	0.89	95.87	96.30
La Majua 45	Bernesga Mb.	-11.45	15.69	-3.02	0.79	95.64	96.11
La Majua 46	Bernesga Mb.	-13.10	17.03	-3.96	0.77	95.78	96.23
La Majua 47	Bernesga Mb.	-5.08	16.03	3.54	3.29	96.06	96.43
La Majua 48	Bernesga Mb.	-11.86	17.59	-2.42	0.83	96.06	96.44
La Majua 49	Bernesga Mb.	-10.55	17.55	-1.13	0.90	96.19	96.55
La Majua 50	Bernesga Mb.	-9.08	16.46	-0.24	0.97	96.22	96.57

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
La Majua 26	Getino Bed	83.20	-3.98	-7.02	-3.95
La Majua 27	Getino Bed	92.48	-2.68	-11.62	-2.64
La Majua 28	Getino Bed	93.93	5.62	-16.02	5.67
La Majua 29	Getino Bed	82.34	-6.42	-8.67	-6.40
La Majua 30	Getino Bed	78.68	-6.62	-7.46	-6.58
La Majua 31	Getino Bed	> D.L.	-6.70	-7.68	-6.69
La Majua 32	Bernesga Mb.	85.13	6.48	0.64	6.52
La Majua 33	Bernesga Mb.	86.41	8.46	-0.98	8.49
La Majua 34	Bernesga Mb.	86.19	7.33	-0.35	7.36
La Majua 35	Bernesga Mb.	87.29	8.24	-0.76	8.27
La Majua 36	Bernesga Mb.	87.39	13.27	-1.86	13.30
La Majua 37	Bernesga Mb.	86.25	7.05	0.07	7.08
La Majua 38	Bernesga Mb.	86.43	7.31	0.60	7.34
La Majua 39	Bernesga Mb.	86.73	7.93	0.08	7.96
La Majua 40	Bernesga Mb.	87.27	6.57	-0.82	6.61
La Majua 41	Bernesga Mb.	86.89	5.46	-0.76	5.49
La Majua 42	Bernesga Mb.	86.33	5.32	-0.09	5.36
La Majua 43	Bernesga Mb.	86.54	5.63	-0.03	5.67
La Majua 44	Bernesga Mb.	87.29	9.94	-0.37	9.97
La Majua 45	Bernesga Mb.	86.82	4.84	-1.35	4.87
La Majua 46	Bernesga Mb.	87.07	5.75	-0.85	5.78
La Majua 47	Bernesga Mb.	88.00	12.37	-2.38	12.40
La Majua 48	Bernesga Mb.	87.81	8.25	-1.35	8.28
La Majua 49	Bernesga Mb.	88.21	9.25	-1.89	9.28
La Majua 50	Bernesga Mb.	88.46	10.14	-1.50	10.17

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
La Majua 26	Getino Bed	-6.24	3.82	-38.27	0.66
La Majua 27	Getino Bed	-11.19	3.47	-39.73	0.47
La Majua 28	Getino Bed	-15.42	3.48	-51.50	0.43
La Majua 29	Getino Bed	-8.35	3.25	-36.60	0.26
La Majua 30	Getino Bed	-7.17	2.42	-34.51	0.15
La Majua 31	Getino Bed	-7.41	2.94	-36.92	-0.06
La Majua 32	Bernesga Mb.	2.05	4.58	-44.18	0.86
La Majua 33	Bernesga Mb.	0.40	4.63	-48.67	0.82
La Majua 34	Bernesga Mb.	0.93	4.48	-44.70	0.83
La Majua 35	Bernesga Mb.	0.59	4.60	-47.43	0.86
La Majua 36	Bernesga Mb.	-0.62	4.32	-55.52	0.73
La Majua 37	Bernesga Mb.	1.38	4.54	-43.81	0.86
La Majua 38	Bernesga Mb.	1.95	4.52	-44.48	0.88
La Majua 39	Bernesga Mb.	1.38	4.47	-45.48	0.86
La Majua 40	Bernesga Mb.	0.47	4.65	-43.67	0.88
La Majua 41	Bernesga Mb.	0.52	4.68	-41.94	0.89
La Majua 42	Bernesga Mb.	1.15	4.59	-40.31	0.89
La Majua 43	Bernesga Mb.	1.22	4.41	-41.35	0.88
La Majua 44	Bernesga Mb.	0.92	4.44	-48.53	0.82
La Majua 45	Bernesga Mb.	-0.12	4.57	-41.53	0.87
La Majua 46	Bernesga Mb.	0.44	4.61	-42.99	0.89
La Majua 47	Bernesga Mb.	-1.23	3.47	-52.00	0.72
La Majua 48	Bernesga Mb.	-0.09	4.48	-45.35	0.85
La Majua 49	Bernesga Mb.	-0.68	4.30	-48.37	0.82
La Majua 50	Bernesga Mb.	-0.37	3.62	-45.47	0.80

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
La Majua 26	Getino Bed	6.54	0.98	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 27	Getino Bed	11.37	1.68	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 28	Getino Bed	16.20	1.79	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 29	Getino Bed	13.38	3.78	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 30	Getino Bed	4.38	7.17	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 31	Getino Bed	13.25	> D.L.	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 32	Bernesga Mb.	3.97	0.38	4.00	4.00	1.00	> D.L.	9.00
La Majua 33	Bernesga Mb.	6.01	0.44	4.00	4.00	1.00	> D.L.	9.00
La Majua 34	Bernesga Mb.	4.92	0.40	4.00	4.00	1.00	> D.L.	9.00
La Majua 35	Bernesga Mb.	4.59	0.38	4.00	4.00	1.00	> D.L.	9.00
La Majua 36	Bernesga Mb.	10.87	0.55	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 37	Bernesga Mb.	4.16	0.37	4.00	4.00	1.00	> D.L.	9.00
La Majua 38	Bernesga Mb.	3.50	0.33	4.00	4.00	1.00	> D.L.	9.00
La Majua 39	Bernesga Mb.	4.35	0.36	4.00	4.00	1.00	> D.L.	9.00
La Majua 40	Bernesga Mb.	3.70	0.35	4.00	4.00	1.00	> D.L.	9.00
La Majua 41	Bernesga Mb.	3.19	0.34	4.00	4.00	1.00	> D.L.	9.00
La Majua 42	Bernesga Mb.	3.12	0.33	4.00	4.00	1.00	> D.L.	9.00
La Majua 43	Bernesga Mb.	3.00	0.33	4.00	4.00	1.00	> D.L.	9.00
La Majua 44	Bernesga Mb.	5.97	0.39	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 45	Bernesga Mb.	3.54	0.37	4.00	4.00	1.00	> D.L.	9.00
La Majua 46	Bernesga Mb.	3.27	0.35	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 47	Bernesga Mb.	10.52	0.55	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 48	Bernesga Mb.	5.26	0.38	4.00	4.00	1.00	> D.L.	9.00
La Majua 49	Bernesga Mb.	6.27	0.42	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 50	Bernesga Mb.	6.90	0.42	4.00	4.00	1.00	> D.L.	9.00

3.3 La Majua 51 - 70

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
La Majua 51	Bernesga Mb.	52.35	35.93	34.60	122.88	70.53
La Majua 52	Bernesga Mb.	51.58	17.87	31.52	100.98	49.40
La Majua 53	Bernesga Mb.	53.39	13.25	35.41	102.04	48.65
La Majua 54	Bernesga Mb.	61.92	25.85	34.97	122.74	60.82
La Majua 55	Bernesga Mb.	71.63	15.05	35.87	122.55	50.92
La Majua 56	Bernesga Mb.	81.58	25.15	33.64	140.37	58.79
La Majua 57	Bernesga Mb.	70.82	36.80	32.52	140.15	69.33
La Majua 58	Bernesga Mb.	65.70	12.95	31.70	110.35	44.65
La Majua 59	Bernesga Mb.	55.16	21.33	33.90	110.39	55.23
La Majua 60	Bernesga Mb.	54.96	> D.L.	34.38	89.34	34.38
La Majua 61	Bernesga Mb.	75.15	33.25	34.80	143.20	68.05
La Majua 62	Bernesga Mb.	73.62	19.41	34.61	127.65	54.02
La Majua 63	Bernesga Mb.	65.47	34.59	35.08	135.14	69.67
La Majua 64	Bernesga Mb.	67.19	16.48	36.95	120.62	53.43
La Majua 65	Bernesga Mb.	78.70	34.42	35.63	148.74	70.05
La Majua 66	Bernesga Mb.	64.93	26.82	34.33	126.08	61.15
La Majua 67	Bernesga Mb.	58.00	30.71	35.91	124.62	66.62
La Majua 68	Bernesga Mb.	62.18	33.43	36.54	132.15	69.97
La Majua 69	Bernesga Mb.	> D.L.	13.67	35.41	49.07	49.07
La Majua 70	Bernesga Mb.	67.32	18.67	33.68	119.67	52.35

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
La Majua 51	Bernesga Mb.	62.60	56.59	52.03	171.22	108.62
La Majua 52	Bernesga Mb.	61.68	28.15	47.40	137.23	75.55
La Majua 53	Bernesga Mb.	63.84	20.86	53.25	137.95	74.11
La Majua 54	Bernesga Mb.	74.04	40.71	52.59	167.34	93.30
La Majua 55	Bernesga Mb.	85.65	23.70	53.95	163.30	77.65
La Majua 56	Bernesga Mb.	97.56	39.60	50.59	187.75	90.19
La Majua 57	Bernesga Mb.	84.69	57.96	48.91	191.56	106.87
La Majua 58	Bernesga Mb.	78.56	20.40	47.66	146.62	68.06
La Majua 59	Bernesga Mb.	65.96	33.59	50.98	150.53	84.57
La Majua 60	Bernesga Mb.	65.72	> D.L.	51.70	117.42	51.70
La Majua 61	Bernesga Mb.	89.87	52.36	52.34	194.56	104.70
La Majua 62	Bernesga Mb.	88.04	30.57	52.04	170.66	82.62
La Majua 63	Bernesga Mb.	78.29	54.48	52.75	185.52	107.23
La Majua 64	Bernesga Mb.	80.35	25.96	55.56	161.87	81.52
La Majua 65	Bernesga Mb.	94.11	54.20	53.58	201.88	107.78
La Majua 66	Bernesga Mb.	77.64	42.24	51.62	171.50	93.86
La Majua 67	Bernesga Mb.	69.36	48.36	54.00	171.72	102.36
La Majua 68	Bernesga Mb.	74.36	52.64	54.95	181.95	107.59
La Majua 69	Bernesga Mb.	> D.L.	21.52	53.25	74.77	74.77
La Majua 70	Bernesga Mb.	80.51	29.40	50.64	160.55	80.04

Sample	Formation	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al2O3*5	10Al2O3
La Majua 51	Bernesga Mb.	78.25	156.50	3.11	2.47	3.31	35.58	6.41	155.74	311.48
La Majua 52	Bernesga Mb.	77.10	154.20	5.36	2.41	3.23	36.32	6.67	161.28	322.55
La Majua 53	Bernesga Mb.	79.80	159.60	6.24	2.55	3.41	36.47	7.57	159.69	319.37
La Majua 54	Bernesga Mb.	92.55	185.10	5.86	3.13	4.20	36.45	7.14	159.84	319.68
La Majua 55	Bernesga Mb.	107.07	214.13	8.73	3.71	4.97	39.04	9.95	172.26	344.52
La Majua 56	Bernesga Mb.	121.95	243.90	8.90	4.23	5.66	34.86	6.96	152.69	305.37
La Majua 57	Bernesga Mb.	105.87	211.73	5.76	3.67	4.91	34.26	6.14	150.38	300.76
La Majua 58	Bernesga Mb.	98.20	196.40	8.12	3.37	4.51	36.22	7.99	160.66	321.31
La Majua 59	Bernesga Mb.	82.45	164.90	5.45	2.67	3.58	35.92	8.01	157.85	315.70
La Majua 60	Bernesga Mb.	82.15	164.30	8.22	2.66	3.56	37.83	9.99	167.11	334.22
La Majua 61	Bernesga Mb.	112.33	224.67	6.87	3.90	5.23	35.40	6.28	154.70	309.40
La Majua 62	Bernesga Mb.	110.05	220.10	8.46	3.82	5.12	35.94	7.45	157.52	315.04
La Majua 63	Bernesga Mb.	97.87	195.73	5.25	3.35	4.49	33.07	5.36	142.88	285.76
La Majua 64	Bernesga Mb.	100.43	200.87	7.88	3.46	4.63	34.74	7.07	150.12	300.24
La Majua 65	Bernesga Mb.	117.63	235.27	7.25	4.08	5.47	33.63	5.18	145.39	290.78
La Majua 66	Bernesga Mb.	97.05	194.10	6.19	3.32	4.45	34.36	6.79	149.82	299.64
La Majua 67	Bernesga Mb.	86.70	173.40	4.64	2.87	3.85	35.80	6.34	156.04	312.07
La Majua 68	Bernesga Mb.	92.95	185.90	4.91	3.15	4.22	35.05	5.81	151.92	303.83
La Majua 69	Bernesga Mb.	> D.L.	> D.L.	-1.79	< D.L.	< D.L.	36.65	8.53	160.61	321.22
La Majua 70	Bernesga Mb.	100.63	201.27	7.61	3.46	4.64	33.54	7.16	146.07	292.14

Sample	Formation	15Al2O3	Al2O3/10	K2O *5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	200TiO2	300TiO2	K2O/Al2O3
La Majua 51	Bernesga Mb.	467.21	3.11	16.26	> D.L.	9.79	-3240.92	3.80	4.88	241.10	361.65	0.10
La Majua 52	Bernesga Mb.	483.83	3.23	14.81	> D.L.	> D.L.	3957.26	4.66	6.00	220.44	330.66	0.09
La Majua 53	Bernesga Mb.	479.06	3.19	16.64	> D.L.	> D.L.	10708.37	5.30	6.81	220.96	331.43	0.10
La Majua 54	Bernesga Mb.	479.53	3.20	16.43	> D.L.	10.82	54.87	4.24	5.45	232.58	348.86	0.10
La Majua 55	Bernesga Mb.	516.78	3.45	16.86	0.68	10.75	16477.39	6.21	7.98	224.67	337.00	0.10
La Majua 56	Bernesga Mb.	458.06	3.05	15.81	> D.L.	> D.L.	8247.02	4.87	6.26	231.07	346.60	0.10
La Majua 57	Bernesga Mb.	451.14	3.01	15.28	> D.L.	9.51	-3481.81	3.63	4.67	235.26	352.88	0.10
La Majua 58	Bernesga Mb.	481.97	3.21	14.90	> D.L.	> D.L.	13385.21	5.59	7.19	216.24	324.36	0.09
La Majua 59	Bernesga Mb.	473.55	3.16	15.93	0.61	10.62	6832.48	4.86	6.25	227.50	341.24	0.10
La Majua 60	Bernesga Mb.	501.33	3.34	16.16	0.41	11.33	17703.96	6.19	7.97	211.20	316.80	0.10
La Majua 61	Bernesga Mb.	464.10	3.09	16.36	> D.L.	10.26	-4173.67	3.68	4.73	236.30	354.45	0.11
La Majua 62	Bernesga Mb.	472.57	3.15	16.26	> D.L.	9.93	3480.53	4.52	5.81	233.77	350.66	0.10
La Majua 63	Bernesga Mb.	428.64	2.86	16.48	> D.L.	> D.L.	-330.96	3.75	4.82	235.63	353.45	0.12
La Majua 64	Bernesga Mb.	450.36	3.00	17.36	> D.L.	> D.L.	9742.39	4.95	6.36	220.78	331.18	0.12
La Majua 65	Bernesga Mb.	436.16	2.91	16.74	> D.L.	> D.L.	-2249.48	3.62	4.66	228.42	342.63	0.12
La Majua 66	Bernesga Mb.	449.46	3.00	16.13	> D.L.	9.53	1164.27	4.08	5.25	233.57	350.35	0.11
La Majua 67	Bernesga Mb.	468.11	3.12	16.87	> D.L.	9.69	-3702.39	3.76	4.84	236.93	355.39	0.11
La Majua 68	Bernesga Mb.	455.75	3.04	17.17	> D.L.	9.50	-6176.62	3.40	4.38	239.99	359.99	0.11
La Majua 69	Bernesga Mb.	481.83	3.21	16.64	> D.L.	> D.L.	17150.29	5.97	7.67	229.16	343.74	0.10
La Majua 70	Bernesga Mb.	438.20	2.92	15.83	> D.L.	> D.L.	11436.04	5.01	6.44	229.08	343.62	0.11

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
La Majua 51	Bernesga Mb.	-0.98	0.03	0.73	0.24	0.36	2.75	-0.44	26.36
La Majua 52	Bernesga Mb.	-1.04	> D.L.	0.82	0.20	0.37	2.69	-0.43	29.28
La Majua 53	Bernesga Mb.	-0.98	> D.L.	0.88	0.19	0.36	2.77	-0.44	26.55
La Majua 54	Bernesga Mb.	-0.99	0.03	0.78	0.22	0.36	2.76	-0.44	26.83
La Majua 55	Bernesga Mb.	-1.01	0.03	0.95	0.19	0.36	2.78	-0.44	22.13
La Majua 56	Bernesga Mb.	-0.98	> D.L.	0.84	0.23	0.37	2.73	-0.44	26.40
La Majua 57	Bernesga Mb.	-0.99	0.03	0.72	0.25	0.37	2.71	-0.43	26.67
La Majua 58	Bernesga Mb.	-1.03	> D.L.	0.90	0.19	0.37	2.69	-0.43	29.05
La Majua 59	Bernesga Mb.	-1.00	0.03	0.84	0.21	0.37	2.74	-0.44	21.53
La Majua 60	Bernesga Mb.	-1.01	0.03	0.95	0.17	0.36	2.75	-0.44	24.16
La Majua 61	Bernesga Mb.	-0.98	0.03	0.72	0.24	0.36	2.76	-0.44	26.06
La Majua 62	Bernesga Mb.	-0.99	0.03	0.81	0.23	0.36	2.75	-0.44	26.65
La Majua 63	Bernesga Mb.	-0.94	> D.L.	0.73	0.26	0.36	2.76	-0.44	23.93
La Majua 64	Bernesga Mb.	-0.94	> D.L.	0.85	0.21	0.36	2.79	-0.45	24.16
La Majua 65	Bernesga Mb.	-0.94	> D.L.	0.71	0.26	0.36	2.77	-0.44	24.06
La Majua 66	Bernesga Mb.	-0.97	0.03	0.77	0.26	0.36	2.75	-0.44	25.51
La Majua 67	Bernesga Mb.	-0.97	0.03	0.73	0.24	0.36	2.78	-0.44	25.67
La Majua 68	Bernesga Mb.	-0.95	0.03	0.69	0.25	0.36	2.79	-0.45	24.65
La Majua 69	Bernesga Mb.	-0.98	> D.L.	0.93	0.20	0.36	2.77	-0.44	26.71
La Majua 70	Bernesga Mb.	-0.97	> D.L.	0.86	0.26	0.37	2.73	-0.44	25.23

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
La Majua 51	Bernesga Mb.	1.18	4.43	6.41	1.75	0.24	0.57	0.17	43.22	0.01
La Majua 52	Bernesga Mb.	1.10	4.06	6.67	1.59	0.20	0.63	0.21	42.86	0.01
La Majua 53	Bernesga Mb.	1.20	4.53	7.57	1.56	0.19	0.64	0.24	41.56	0.01
La Majua 54	Bernesga Mb.	1.19	4.48	7.14	1.66	0.22	0.60	0.19	43.69	0.01
La Majua 55	Bernesga Mb.	1.56	4.93	9.95	1.53	0.19	0.65	0.26	39.66	0.00
La Majua 56	Bernesga Mb.	1.16	4.32	6.96	1.71	0.23	0.58	0.23	41.48	0.01
La Majua 57	Bernesga Mb.	1.13	4.18	6.14	1.76	0.25	0.57	0.17	44.35	0.01
La Majua 58	Bernesga Mb.	1.11	4.09	7.99	1.57	0.19	0.64	0.25	41.45	0.01
La Majua 59	Bernesga Mb.	1.47	4.65	8.01	1.61	0.21	0.62	0.22	43.14	0.01
La Majua 60	Bernesga Mb.	1.38	4.61	9.99	1.48	0.17	0.68	0.26	41.05	0.00
La Majua 61	Bernesga Mb.	1.19	4.46	6.28	1.72	0.24	0.58	0.17	45.09	0.01
La Majua 62	Bernesga Mb.	1.18	4.43	7.45	1.69	0.23	0.59	0.21	42.57	0.01
La Majua 63	Bernesga Mb.	1.19	4.49	5.36	1.82	0.26	0.55	0.19	44.22	0.01
La Majua 64	Bernesga Mb.	1.24	4.72	7.07	1.64	0.21	0.61	0.24	42.28	0.01
La Majua 65	Bernesga Mb.	1.21	4.56	5.18	1.80	0.26	0.56	0.18	43.48	0.01
La Majua 66	Bernesga Mb.	1.17	4.40	6.79	1.82	0.26	0.55	0.19	41.39	0.01
La Majua 67	Bernesga Mb.	1.22	4.59	6.34	1.73	0.24	0.58	0.17	42.53	0.01
La Majua 68	Bernesga Mb.	1.23	4.67	5.81	1.78	0.25	0.56	0.16	44.01	0.01
La Majua 69	Bernesga Mb.	1.20	4.53	8.53	1.59	0.20	0.63	0.27	39.25	0.00
La Majua 70	Bernesga Mb.	1.16	4.32	7.16	1.80	0.26	0.56	0.25	41.55	0.01

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Zr/Sc	Cr/Th	Th/Sc
La Majua 51	Bernesga Mb.	25.84	0.06	354.15	> D.L.	198.51	0.39	0.88	1.36	> D.L.	7.90	4.72	6.00	8.76	0.58
La Majua 52	Bernesga Mb.	29.26	0.06	382.16	0.66	329.01	1.17	0.97	1.38	> D.L.	6.88	2.35	5.18	17.59	0.28
La Majua 53	Bernesga Mb.	28.91	0.06	372.36	0.49	242.18	0.57	0.92	1.46	> D.L.	> D.L.	1.74	> D.L.	24.49	> D.L.
La Majua 54	Bernesga Mb.	27.49	0.06	368.68	0.64	227.32	0.53	0.86	1.35	> D.L.	> D.L.	3.39	> D.L.	12.18	> D.L.
La Majua 55	Bernesga Mb.	30.67	0.05	307.13	0.46	266.88	0.72	0.98	1.41	> D.L.	> D.L.	1.98	> D.L.	22.17	> D.L.
La Majua 56	Bernesga Mb.	26.43	0.06	359.78	1.02	220.69	0.48	0.93	1.56	> D.L.	> D.L.	3.30	> D.L.	12.38	> D.L.
La Majua 57	Bernesga Mb.	25.57	0.06	373.15	0.81	218.03	0.47	0.96	1.38	> D.L.	9.01	4.83	6.42	9.00	0.70
La Majua 58	Bernesga Mb.	29.72	0.06	385.38	0.76	319.04	1.21	0.89	1.41	> D.L.	6.88	1.70	5.12	21.44	0.20
La Majua 59	Bernesga Mb.	27.75	0.06	342.82	0.70	229.79	0.58	0.86	1.41	> D.L.	> D.L.	2.80	> D.L.	14.01	> D.L.
La Majua 60	Bernesga Mb.	31.65	0.06	382.60	0.55	283.01	0.86	0.84	1.50	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.	> D.L.
La Majua 61	Bernesga Mb.	26.19	0.06	374.52	> D.L.	202.40	0.40	0.84	1.33	> D.L.	> D.L.	4.36	> D.L.	9.45	> D.L.
La Majua 62	Bernesga Mb.	26.95	0.06	382.64	0.51	250.72	0.70	0.90	1.30	> D.L.	> D.L.	2.55	> D.L.	16.27	> D.L.
La Majua 63	Bernesga Mb.	24.25	0.06	341.80	0.71	227.98	0.53	0.86	1.33	> D.L.	> D.L.	4.54	> D.L.	9.23	> D.L.
La Majua 64	Bernesga Mb.	27.20	0.06	367.21	0.89	246.86	0.62	0.85	1.33	> D.L.	> D.L.	2.16	> D.L.	19.19	> D.L.
La Majua 65	Bernesga Mb.	25.46	0.06	349.24	> D.L.	203.38	0.41	0.86	1.31	> D.L.	> D.L.	4.52	> D.L.	9.27	> D.L.
La Majua 66	Bernesga Mb.	25.66	0.06	388.15	0.65	216.72	0.51	0.92	1.36	> D.L.	8.31	3.52	6.94	11.68	0.48
La Majua 67	Bernesga Mb.	26.34	0.06	367.08	> D.L.	202.77	0.38	0.92	1.29	> D.L.	> D.L.	4.03	> D.L.	10.93	> D.L.
La Majua 68	Bernesga Mb.	25.32	0.06	336.04	> D.L.	211.69	0.39	0.89	1.32	> D.L.	> D.L.	4.39	> D.L.	10.25	> D.L.
La Majua 69	Bernesga Mb.	28.03	0.07	403.82	0.79	217.40	0.50	0.90	1.54	> D.L.	> D.L.	1.79	> D.L.	21.86	> D.L.
La Majua 70	Bernesga Mb.	25.50	0.06	357.37	> D.L.	198.20	0.49	0.78	1.48	> D.L.	8.44	2.45	6.70	13.97	0.32

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
La Majua 51	Bernesga Mb.	1.03	0.97	0.02	7.11	1.17	3.01	> D.L.	0.65	1.54
La Majua 52	Bernesga Mb.	1.04	0.97	0.02	7.61	1.06	3.17	> D.L.	0.71	1.41
La Majua 53	Bernesga Mb.	0.79	1.26	0.02	6.16	0.86	3.62	> D.L.	0.63	1.58
La Majua 54	Bernesga Mb.	0.88	1.14	0.02	6.66	1.02	2.97	> D.L.	0.64	1.57
La Majua 55	Bernesga Mb.	0.90	1.11	0.02	5.48	0.91	4.18	> D.L.	0.70	1.43
La Majua 56	Bernesga Mb.	0.99	1.01	0.02	6.73	1.06	3.61	> D.L.	0.60	1.67
La Majua 57	Bernesga Mb.	0.98	1.02	0.02	7.06	1.02	2.57	> D.L.	0.70	1.44
La Majua 58	Bernesga Mb.	1.05	0.96	0.02	7.68	1.18	4.19	> D.L.	0.63	1.59
La Majua 59	Bernesga Mb.	0.88	1.14	0.02	6.09	1.03	3.50	> D.L.	0.61	1.64
La Majua 60	Bernesga Mb.	0.77	1.30	0.02	6.16	0.92	4.31	> D.L.	0.56	1.79
La Majua 61	Bernesga Mb.	0.92	1.09	0.02	7.18	1.10	2.39	> D.L.	0.63	1.58
La Majua 62	Bernesga Mb.	0.97	1.03	0.02	7.34	1.08	3.26	0.87	0.69	1.45
La Majua 63	Bernesga Mb.	0.95	1.05	0.02	6.71	1.10	2.83	> D.L.	0.65	1.54
La Majua 64	Bernesga Mb.	0.79	1.26	0.02	6.46	0.93	3.49	> D.L.	0.64	1.57
La Majua 65	Bernesga Mb.	0.98	1.02	0.02	7.30	1.14	2.40	> D.L.	0.66	1.52
La Majua 66	Bernesga Mb.	1.14	0.88	0.02	8.43	1.23	3.51	> D.L.	0.68	1.48
La Majua 67	Bernesga Mb.	0.96	1.04	0.02	7.14	1.04	2.93	> D.L.	0.72	1.40
La Majua 68	Bernesga Mb.	0.95	1.05	0.02	6.74	1.07	2.39	> D.L.	0.68	1.48
La Majua 69	Bernesga Mb.	1.03	0.97	0.02	7.90	1.14	3.63	> D.L.	0.58	1.71
La Majua 70	Bernesga Mb.	1.17	0.85	0.02	8.03	1.50	4.08	> D.L.	0.53	1.89

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
La Majua 51	Bernesga Mb.	1.29	0.47	11.60	> D.L.	> D.L.	1.80	4.52	7.52
La Majua 52	Bernesga Mb.	1.41	0.45	10.23	4.96	> D.L.	3.26	12.02	7.25
La Majua 53	Bernesga Mb.	1.57	0.47	11.93	3.12	> D.L.	1.54	6.77	7.56
La Majua 54	Bernesga Mb.	1.24	0.55	11.47	2.27	> D.L.	1.46	6.11	7.33
La Majua 55	Bernesga Mb.	2.10	0.59	10.31	4.04	> D.L.	1.85	7.43	7.20
La Majua 56	Bernesga Mb.	1.69	0.75	12.67	2.49	> D.L.	2.53	6.07	7.59
La Majua 57	Bernesga Mb.	1.02	0.67	11.77	2.20	> D.L.	1.79	5.50	8.20
La Majua 58	Bernesga Mb.	1.70	0.58	10.21	5.13	> D.L.	3.91	12.33	6.43
La Majua 59	Bernesga Mb.	1.43	0.49	11.57	2.77	> D.L.	1.94	6.71	7.04
La Majua 60	Bernesga Mb.	1.72	0.46	11.27	4.28	> D.L.	2.35	9.71	6.29
La Majua 61	Bernesga Mb.	1.12	0.69	11.95	> D.L.	> D.L.	1.51	4.81	7.56
La Majua 62	Bernesga Mb.	1.32	0.66	10.81	3.12	> D.L.	1.58	7.58	7.46
La Majua 63	Bernesga Mb.	1.19	0.65	12.80	2.99	> D.L.	2.11	6.77	8.31
La Majua 64	Bernesga Mb.	1.55	0.63	12.32	3.87	> D.L.	3.46	7.70	7.84
La Majua 65	Bernesga Mb.	1.17	0.76	12.39	> D.L.	> D.L.	2.45	5.05	8.17
La Majua 66	Bernesga Mb.	1.45	0.61	11.47	3.76	> D.L.	2.46	5.89	7.77
La Majua 67	Bernesga Mb.	1.17	0.52	11.19	> D.L.	> D.L.	1.59	4.27	8.00
La Majua 68	Bernesga Mb.	1.09	0.58	12.40	> D.L.	> D.L.	0.88	4.78	8.38
La Majua 69	Bernesga Mb.	1.83	> D.L.	11.83	2.30	> D.L.	1.81	5.87	6.92
La Majua 70	Bernesga Mb.	1.95	0.65	12.57	> D.L.	> D.L.	2.20	6.18	6.64

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
La Majua 51	Bernesga Mb.	> D.L.	11.52	30.95	25.67	8.80	0.72	21.15	> D.L.
La Majua 52	Bernesga Mb.	> D.L.	10.89	99.02	23.61	7.70	0.46	67.67	> D.L.
La Majua 53	Bernesga Mb.	> D.L.	10.72	38.98	29.58	6.48	0.64	26.64	> D.L.
La Majua 54	Bernesga Mb.	> D.L.	11.01	46.49	25.19	7.44	0.65	31.77	> D.L.
La Majua 55	Bernesga Mb.	> D.L.	10.04	35.06	30.64	6.59	0.58	23.96	> D.L.
La Majua 56	Bernesga Mb.	> D.L.	11.68	43.11	29.27	8.02	0.68	29.46	> D.L.
La Majua 57	Bernesga Mb.	> D.L.	11.72	41.31	21.85	8.39	0.68	28.23	> D.L.
La Majua 58	Bernesga Mb.	> D.L.	10.65	111.32	30.39	7.60	0.45	76.07	> D.L.
La Majua 59	Bernesga Mb.	> D.L.	10.99	42.63	28.78	7.25	0.63	29.13	> D.L.
La Majua 60	Bernesga Mb.	> D.L.	10.13	93.36	32.32	5.76	0.54	63.80	> D.L.
La Majua 61	Bernesga Mb.	> D.L.	11.21	30.47	21.55	8.29	0.71	20.82	> D.L.
La Majua 62	Bernesga Mb.	> D.L.	11.12	47.15	27.05	8.06	0.59	32.22	> D.L.
La Majua 63	Bernesga Mb.	> D.L.	12.24	43.23	27.31	9.17	0.65	29.54	> D.L.
La Majua 64	Bernesga Mb.	> D.L.	11.41	47.59	32.26	7.32	0.62	32.52	> D.L.
La Majua 65	Bernesga Mb.	> D.L.	12.16	32.06	22.68	9.30	0.71	21.91	> D.L.
La Majua 66	Bernesga Mb.	> D.L.	11.81	33.83	29.54	9.58	0.66	23.12	> D.L.
La Majua 67	Bernesga Mb.	> D.L.	11.13	26.94	25.49	8.36	0.72	18.41	> D.L.
La Majua 68	Bernesga Mb.	> D.L.	11.41	27.60	22.44	8.98	0.72	18.86	> D.L.
La Majua 69	Bernesga Mb.	> D.L.	10.78	27.08	27.91	7.90	0.67	18.51	> D.L.
La Majua 70	Bernesga Mb.	> D.L.	11.92	33.13	34.70	9.98	0.67	22.64	> D.L.

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
La Majua 51	Bernesga Mb.	1.81	0.55	1.50	18.55	> D.L.	1.67	0.22	2.13	0.01	> D.L.	> D.L.
La Majua 52	Bernesga Mb.	0.91	1.10	1.39	17.06	> D.L.	2.25	0.35	2.40	0.01	> D.L.	> D.L.
La Majua 53	Bernesga Mb.	0.65	1.53	1.37	13.72	> D.L.	2.28	0.36	2.65	0.01	> D.L.	> D.L.
La Majua 54	Bernesga Mb.	1.10	0.91	1.45	13.60	> D.L.	1.84	0.27	2.10	0.01	> D.L.	> D.L.
La Majua 55	Bernesga Mb.	0.55	1.81	1.39	11.22	> D.L.	2.63	0.42	3.82	0.01	0.57	5.73
La Majua 56	Bernesga Mb.	0.81	1.23	1.38	10.63	> D.L.	2.20	0.34	2.74	0.01	> D.L.	> D.L.
La Majua 57	Bernesga Mb.	1.37	0.73	1.44	12.61	> D.L.	1.70	0.23	1.62	0.01	> D.L.	> D.L.
La Majua 58	Bernesga Mb.	0.52	1.93	1.40	13.15	> D.L.	2.68	0.43	2.89	0.01	> D.L.	> D.L.
La Majua 59	Bernesga Mb.	1.02	0.98	1.41	14.68	> D.L.	2.18	0.34	2.39	0.01	> D.L.	> D.L.
La Majua 60	Bernesga Mb.	> D.L.	> D.L.	1.31	12.40	> D.L.	2.74	0.44	3.04	0.01	> D.L.	> D.L.
La Majua 61	Bernesga Mb.	1.17	0.86	1.54	12.09	> D.L.	1.61	0.21	1.84	0.01	> D.L.	> D.L.
La Majua 62	Bernesga Mb.	0.69	1.44	1.47	12.21	> D.L.	1.99	0.30	2.20	0.01	> D.L.	> D.L.
La Majua 63	Bernesga Mb.	1.39	0.72	1.54	14.17	> D.L.	1.63	0.21	1.81	0.01	> D.L.	> D.L.
La Majua 64	Bernesga Mb.	0.65	1.55	1.45	11.59	> D.L.	2.04	0.31	2.46	0.01	> D.L.	> D.L.
La Majua 65	Bernesga Mb.	1.15	0.87	1.54	12.17	> D.L.	1.55	0.19	1.80	0.01	> D.L.	> D.L.
La Majua 66	Bernesga Mb.	1.09	0.92	1.53	15.66	> D.L.	1.81	0.26	2.30	0.01	> D.L.	> D.L.
La Majua 67	Bernesga Mb.	1.39	0.72	1.53	15.93	> D.L.	1.59	0.20	1.94	0.01	> D.L.	> D.L.
La Majua 68	Bernesga Mb.	1.42	0.71	1.61	15.53	> D.L.	1.42	0.15	1.76	0.01	0.04	0.38
La Majua 69	Bernesga Mb.	> D.L.	> D.L.	1.45	> D.L.	> D.L.	2.56	0.41	3.11	0.01	0.04	0.37
La Majua 70	Bernesga Mb.	0.73	1.37	1.55	15.33	> D.L.	2.26	0.35	3.02	0.01	0.04	0.39

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
La Majua 51	Bernesga Mb.	> D.L.	> D.L.	> D.L.	3.11	7.35	14.51	420159.52	1042.67	-24.38
La Majua 52	Bernesga Mb.	> D.L.	> D.L.	> D.L.	5.36	6.73	13.15	410383.96	2608.80	-23.01
La Majua 53	Bernesga Mb.	> D.L.	> D.L.	> D.L.	6.24	6.75	10.95	402359.27	1405.43	-20.70
La Majua 54	Bernesga Mb.	> D.L.	> D.L.	> D.L.	5.86	7.09	12.59	417024.95	1279.90	-23.98
La Majua 55	Bernesga Mb.	11452.26	0.86	1.14	8.73	6.86	12.02	429414.23	1692.60	-20.82
La Majua 56	Bernesga Mb.	> D.L.	> D.L.	> D.L.	8.90	7.05	12.96	405652.86	1389.57	-20.40
La Majua 57	Bernesga Mb.	> D.L.	> D.L.	> D.L.	5.76	7.18	13.35	406986.45	1160.83	-23.65
La Majua 58	Bernesga Mb.	> D.L.	> D.L.	> D.L.	8.12	6.59	12.92	405118.86	2761.80	-20.03
La Majua 59	Bernesga Mb.	> D.L.	> D.L.	> D.L.	5.45	6.94	12.11	404625.50	1445.87	-21.61
La Majua 60	Bernesga Mb.	> D.L.	> D.L.	> D.L.	8.22	6.44	10.19	408075.60	2133.40	-19.68
La Majua 61	Bernesga Mb.	> D.L.	> D.L.	> D.L.	6.87	7.21	13.58	413105.46	1033.60	-24.51
La Majua 62	Bernesga Mb.	> D.L.	> D.L.	> D.L.	8.46	7.13	13.44	415783.23	2978.07	-22.59
La Majua 63	Bernesga Mb.	> D.L.	> D.L.	> D.L.	5.25	7.19	13.87	393744.06	1342.67	-21.56
La Majua 64	Bernesga Mb.	> D.L.	> D.L.	> D.L.	7.88	6.74	11.64	389004.65	1772.53	-19.56
La Majua 65	Bernesga Mb.	> D.L.	> D.L.	> D.L.	7.25	6.97	14.31	398499.36	1153.73	-22.52
La Majua 66	Bernesga Mb.	> D.L.	> D.L.	> D.L.	6.19	7.12	15.20	413739.82	1323.73	-22.14
La Majua 67	Bernesga Mb.	> D.L.	> D.L.	> D.L.	4.64	7.23	13.81	417248.65	967.67	-24.56
La Majua 68	Bernesga Mb.	760.25	0.06	0.08	4.91	7.33	14.44	414111.27	909.52	-24.70
La Majua 69	Bernesga Mb.	739.56	0.06	0.07	-1.79	6.99	13.43	408483.88	1306.27	-18.87
La Majua 70	Bernesga Mb.	785.12	0.06	0.08	7.61	6.97	15.43	400498.17	1295.43	-18.43

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
La Majua 51	Bernesga Mb.	-11.39	16.82	-2.36	0.83	95.94	96.34
La Majua 52	Bernesga Mb.	-10.75	17.42	-1.40	0.89	96.38	96.70
La Majua 53	Bernesga Mb.	-9.67	17.25	-0.41	0.96	95.97	96.37
La Majua 54	Bernesga Mb.	-11.21	17.26	-1.94	0.85	96.01	96.41
La Majua 55	Bernesga Mb.	-9.73	18.60	0.26	1.03	95.23	95.68
La Majua 56	Bernesga Mb.	-9.53	16.49	-0.68	0.93	95.95	96.35
La Majua 57	Bernesga Mb.	-11.05	16.24	-2.33	0.83	95.99	96.39
La Majua 58	Bernesga Mb.	-9.36	17.35	-0.04	1.00	96.34	96.67
La Majua 59	Bernesga Mb.	-10.10	17.05	-0.94	0.91	95.09	95.56
La Majua 60	Bernesga Mb.	-9.19	18.05	0.50	1.06	95.62	96.03
La Majua 61	Bernesga Mb.	-11.45	16.71	-2.48	0.82	95.89	96.31
La Majua 62	Bernesga Mb.	-10.56	17.01	-1.42	0.88	95.98	96.38
La Majua 63	Bernesga Mb.	-10.07	15.43	-1.79	0.85	95.49	95.99
La Majua 64	Bernesga Mb.	-9.14	16.21	-0.43	0.95	95.53	96.02
La Majua 65	Bernesga Mb.	-10.52	15.70	-2.09	0.83	95.51	96.01
La Majua 66	Bernesga Mb.	-10.35	16.18	-1.66	0.86	95.79	96.23
La Majua 67	Bernesga Mb.	-11.48	16.85	-2.43	0.83	95.81	96.25
La Majua 68	Bernesga Mb.	-11.54	16.41	-2.73	0.81	95.63	96.10
La Majua 69	Bernesga Mb.	-8.82	17.35	0.50	1.06	95.99	96.39
La Majua 70	Bernesga Mb.	-8.61	15.78	-0.14	0.98	95.74	96.19

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
La Majua 51	Bernesga Mb.	87.54	6.97	-1.47	7.01
La Majua 52	Bernesga Mb.	88.81	10.55	-1.08	10.58
La Majua 53	Bernesga Mb.	87.58	10.64	-0.76	10.68
La Majua 54	Bernesga Mb.	87.71	7.83	-1.65	7.86
La Majua 55	Bernesga Mb.	87.49	11.68	-2.06	11.71
La Majua 56	Bernesga Mb.	87.61	9.42	-0.94	9.45
La Majua 57	Bernesga Mb.	87.79	6.44	-1.77	6.48
La Majua 58	Bernesga Mb.	88.72	11.50	-1.40	11.53
La Majua 59	Bernesga Mb.	87.16	8.64	-2.05	8.67
La Majua 60	Bernesga Mb.	87.87	11.14	-2.44	11.17
La Majua 61	Bernesga Mb.	87.41	6.67	-1.48	6.70
La Majua 62	Bernesga Mb.	87.66	8.01	-1.74	8.05
La Majua 63	Bernesga Mb.	86.42	6.82	-0.46	6.86
La Majua 64	Bernesga Mb.	86.43	8.95	-0.55	8.98
La Majua 65	Bernesga Mb.	86.45	7.00	-0.31	7.03
La Majua 66	Bernesga Mb.	87.19	6.69	-1.68	6.73
La Majua 67	Bernesga Mb.	87.18	6.88	-1.26	6.92
La Majua 68	Bernesga Mb.	86.68	5.93	-1.07	5.97
La Majua 69	Bernesga Mb.	87.64	11.41	-0.97	11.44
La Majua 70	Bernesga Mb.	87.11	8.78	-1.08	8.82

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
La Majua 51	Bernesga Mb.	-0.24	4.39	-45.67	0.85
La Majua 52	Bernesga Mb.	0.07	3.90	-47.44	0.82
La Majua 53	Bernesga Mb.	0.49	4.35	-49.55	0.81
La Majua 54	Bernesga Mb.	-0.41	4.37	-46.65	0.84
La Majua 55	Bernesga Mb.	-0.65	4.35	-54.13	0.79
La Majua 56	Bernesga Mb.	0.27	4.20	-48.12	0.81
La Majua 57	Bernesga Mb.	-0.59	4.41	-43.63	0.85
La Majua 58	Bernesga Mb.	-0.25	3.78	-49.61	0.80
La Majua 59	Bernesga Mb.	-0.70	4.49	-47.48	0.82
La Majua 60	Bernesga Mb.	-1.13	4.12	-51.46	0.79
La Majua 61	Bernesga Mb.	-0.24	4.50	-44.73	0.85
La Majua 62	Bernesga Mb.	-0.50	4.30	-47.32	0.83
La Majua 63	Bernesga Mb.	0.79	4.34	-43.98	0.84
La Majua 64	Bernesga Mb.	0.75	4.39	-47.49	0.81
La Majua 65	Bernesga Mb.	0.95	4.45	-44.30	0.85
La Majua 66	Bernesga Mb.	-0.46	4.37	-45.89	0.84
La Majua 67	Bernesga Mb.	0.01	4.49	-45.61	0.85
La Majua 68	Bernesga Mb.	0.21	4.51	-44.37	0.86
La Majua 69	Bernesga Mb.	0.29	4.27	-52.01	0.79
La Majua 70	Bernesga Mb.	0.12	4.23	-48.09	0.80

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
La Majua 51	Bernesga Mb.	4.50	0.39	4.00	4.00	1.00	> D.L.	9.00
La Majua 52	Bernesga Mb.	6.05	0.37	4.00	4.00	1.00	> D.L.	9.00
La Majua 53	Bernesga Mb.	6.85	0.42	4.00	4.00	1.00	> D.L.	9.00
La Majua 54	Bernesga Mb.	5.21	0.40	4.00	4.00	1.00	> D.L.	9.00
La Majua 55	Bernesga Mb.	7.90	0.47	4.00	4.00	1.00	> D.L.	9.00
La Majua 56	Bernesga Mb.	6.02	0.41	4.00	4.00	1.00	> D.L.	9.00
La Majua 57	Bernesga Mb.	4.41	0.39	4.00	4.00	1.00	> D.L.	9.00
La Majua 58	Bernesga Mb.	7.39	0.42	4.00	4.00	1.00	> D.L.	9.00
La Majua 59	Bernesga Mb.	6.11	0.44	4.00	4.00	1.00	> D.L.	9.00
La Majua 60	Bernesga Mb.	8.38	0.47	4.00	4.00	1.00	> D.L.	9.00
La Majua 61	Bernesga Mb.	4.45	0.39	4.00	4.00	1.00	> D.L.	9.00
La Majua 62	Bernesga Mb.	5.52	0.42	4.00	4.00	1.00	> D.L.	9.00
La Majua 63	Bernesga Mb.	4.55	0.39	4.00	4.00	1.00	> D.L.	9.00
La Majua 64	Bernesga Mb.	6.41	0.43	4.00	4.00	1.00	> D.L.	9.00
La Majua 65	Bernesga Mb.	4.53	0.38	4.00	4.00	1.00	> D.L.	9.00
La Majua 66	Bernesga Mb.	5.00	0.41	4.00	4.00	1.00	> D.L.	9.00
La Majua 67	Bernesga Mb.	4.54	0.39	4.00	4.00	1.00	> D.L.	9.00
La Majua 68	Bernesga Mb.	4.05	0.39	4.00	4.00	1.00	> D.L.	9.00
La Majua 69	Bernesga Mb.	7.44	0.44	1.00	> D.L.	1.00	> D.L.	> D.L.
La Majua 70	Bernesga Mb.	6.25	0.43	4.00	4.00	1.00	> D.L.	9.00

4. Geochemical ratios and proxies – Sena de Luna section

4.1 Sena 1 - 25

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
Sena 1	Barrios Fm	< D.L.	17.42	3.97	21.40	21.40
Sena 2	Getino Bed	< D.L.	< D.L.	4.60	4.60	4.60
Sena 3	Getino Bed	< D.L.	12.69	7.83	20.52	20.52
Sena 4	Getino Bed	< D.L.	7.42	6.48	13.90	13.90
Sena 5	Getino Bed	< D.L.	7.75	7.69	15.44	15.44
Sena 6	Getino Bed	38.27	32.98	15.99	87.23	48.96
Sena 7	Getino Bed	< D.L.	22.53	15.69	38.22	38.22
Sena 8	Getino Bed	33.18	19.95	18.18	71.31	38.13
Sena 9	Getino Bed	< D.L.	16.15	21.41	37.57	37.57
Sena 10	Getino Bed	< D.L.	19.52	21.34	40.86	40.86
Sena 11	Bernesga Mb.	52.38	30.89	45.42	128.70	76.32
Sena 12	Bernesga Mb.	61.28	37.74	54.87	153.89	92.61
Sena 13	Bernesga Mb.	60.28	41.89	48.37	150.54	90.26
Sena 14	Bernesga Mb.	57.73	31.72	46.83	136.28	78.54
Sena 15	Bernesga Mb.	77.47	42.02	56.39	175.88	98.41
Sena 16	Bernesga Mb.	< D.L.	< D.L.	34.01	34.01	34.01
Sena 17	Bernesga Mb.	53.61	40.79	45.26	139.66	86.05
Sena 18	Bernesga Mb.	75.26	33.08	54.23	162.57	87.31
Sena 19	Bernesga Mb.	49.77	35.37	44.15	129.29	79.52
Sena 20	Bernesga Mb.	60.23	42.44	49.62	152.29	92.06
Sena 21	Bernesga Mb.	51.94	54.75	47.50	154.19	102.25
Sena 22	Bernesga Mb.	64.53	49.08	48.89	162.50	97.97
Sena 23	Bernesga Mb.	63.05	26.35	45.18	134.58	71.52
Sena 24	Bernesga Mb.	60.70	50.99	47.13	158.83	98.13
Sena 25	Bernesga Mb.	61.08	50.72	47.21	159.01	97.93

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
Sena 1	Barrios Fm	< D.L.	27.44	5.98	33.42	33.42
Sena 2	Getino Bed	< D.L.	< D.L.	6.92	6.92	6.92
Sena 3	Getino Bed	< D.L.	19.99	11.78	31.76	31.76
Sena 4	Getino Bed	< D.L.	11.68	9.74	21.42	21.42
Sena 5	Getino Bed	< D.L.	12.20	11.56	23.76	23.76
Sena 6	Getino Bed	45.76	51.93	24.04	121.73	75.97
Sena 7	Getino Bed	< D.L.	35.48	23.59	59.07	59.07
Sena 8	Getino Bed	39.68	31.41	27.34	98.43	58.75
Sena 9	Getino Bed	< D.L.	25.44	32.20	57.64	57.64
Sena 10	Getino Bed	< D.L.	30.75	32.09	62.83	62.83
Sena 11	Bernesga Mb.	62.64	48.65	68.31	179.60	116.96
Sena 12	Bernesga Mb.	73.28	59.44	82.51	215.23	141.95
Sena 13	Bernesga Mb.	72.08	65.97	72.73	210.78	138.70
Sena 14	Bernesga Mb.	69.04	49.95	70.42	189.40	120.36
Sena 15	Bernesga Mb.	92.64	66.17	84.80	243.61	150.97
Sena 16	Bernesga Mb.	< D.L.	< D.L.	51.14	51.14	51.14
Sena 17	Bernesga Mb.	64.11	64.24	68.06	196.40	132.30
Sena 18	Bernesga Mb.	90.00	52.09	81.55	223.64	133.64
Sena 19	Bernesga Mb.	59.52	55.69	66.40	181.61	122.09
Sena 20	Bernesga Mb.	72.03	66.84	74.61	213.48	141.45
Sena 21	Bernesga Mb.	62.11	86.23	71.43	219.76	157.65
Sena 22	Bernesga Mb.	77.16	77.29	73.52	227.97	150.81
Sena 23	Bernesga Mb.	75.40	41.49	67.93	184.83	109.43
Sena 24	Bernesga Mb.	72.59	80.31	70.87	223.77	151.18
Sena 25	Bernesga Mb.	73.04	79.87	71.00	223.91	150.87

Sample	Formation	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al2O3*5	10Al2O3
Sena 1	Barrios Fm	< D.L.	< D.L.	-2.29	< D.L.	< D.L.	2.47	3.17	8.55	17.11
Sena 2	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	2.78	4.03	9.73	19.46
Sena 3	Getino Bed	< D.L.	< D.L.	-1.67	< D.L.	< D.L.	4.24	3.22	15.10	30.19
Sena 4	Getino Bed	< D.L.	< D.L.	-0.97	< D.L.	< D.L.	3.36	3.29	11.49	22.97
Sena 5	Getino Bed	< D.L.	< D.L.	-1.02	< D.L.	< D.L.	4.25	3.39	15.24	30.49
Sena 6	Getino Bed	57.20	114.40	1.39	1.23	1.64	9.65	3.50	37.27	74.53
Sena 7	Getino Bed	< D.L.	< D.L.	-2.96	< D.L.	< D.L.	8.41	4.37	31.21	62.41
Sena 8	Getino Bed	49.60	99.20	2.34	0.66	0.88	10.23	3.51	38.82	77.64
Sena 9	Getino Bed	< D.L.	< D.L.	-2.12	< D.L.	< D.L.	12.18	3.31	46.65	93.31
Sena 10	Getino Bed	< D.L.	< D.L.	-2.56	< D.L.	< D.L.	12.56	3.27	48.59	97.17
Sena 11	Bernesga Mb.	78.30	156.60	3.78	2.47	3.31	30.87	5.46	125.66	251.33
Sena 12	Bernesga Mb.	91.60	183.20	4.21	3.09	4.14	36.26	6.28	146.97	293.94
Sena 13	Bernesga Mb.	90.10	180.20	3.51	3.03	4.06	30.30	3.82	121.09	242.17
Sena 14	Bernesga Mb.	86.30	172.60	4.47	2.86	3.83	32.16	6.31	131.31	262.62
Sena 15	Bernesga Mb.	115.80	231.60	6.07	4.02	5.39	34.73	4.41	138.38	276.77
Sena 16	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	27.86	7.90	117.47	234.94
Sena 17	Bernesga Mb.	80.13	160.27	2.66	2.56	3.43	32.65	4.88	134.68	269.36
Sena 18	Bernesga Mb.	112.50	225.00	6.91	3.91	5.23	35.51	6.47	143.61	287.22
Sena 19	Bernesga Mb.	74.40	148.80	2.80	2.27	3.04	31.31	4.64	128.63	257.25
Sena 20	Bernesga Mb.	90.03	180.07	3.43	3.02	4.05	34.16	5.43	139.60	279.19
Sena 21	Bernesga Mb.	77.63	155.27	0.58	2.44	3.26	36.39	4.98	152.04	304.09
Sena 22	Bernesga Mb.	96.45	192.90	3.20	3.30	4.42	35.19	5.29	145.22	290.44
Sena 23	Bernesga Mb.	94.25	188.50	5.97	3.20	4.29	35.28	7.33	147.90	295.80
Sena 24	Bernesga Mb.	90.73	181.47	2.38	3.05	4.09	35.19	5.22	146.25	292.50
Sena 25	Bernesga Mb.	91.30	182.60	2.47	3.08	4.13	37.16	5.08	156.05	312.10

Sample	Formation	15Al2O3	Al2O3/10	K2O *5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	Ti Cal (ppm)	200TiO2	300TiO2	K2O/Al2O3
Sena 1	Barrios Fm	25.66	0.17	1.87	< D.L.	< D.L.	19897.30	2.22	2.85	2168.60	72.36	108.54	0.22
Sena 2	Getino Bed	29.19	0.19	2.16	< D.L.	< D.L.	25601.47	2.82	3.62	1185.50	39.56	59.33	0.22
Sena 3	Getino Bed	45.29	0.30	3.68	< D.L.	< D.L.	18529.87	2.25	2.90	1069.61	35.69	53.53	0.24
Sena 4	Getino Bed	34.46	0.23	3.04	< D.L.	< D.L.	19946.88	2.30	2.96	901.15	30.07	45.10	0.27
Sena 5	Getino Bed	45.73	0.30	3.61	0.48	< D.L.	19684.96	2.37	3.05	1287.15	42.95	64.42	0.24
Sena 6	Getino Bed	111.80	0.75	7.51	< D.L.	< D.L.	14602.50	2.45	3.15	3949.59	131.78	197.67	0.20
Sena 7	Getino Bed	93.62	0.62	7.37	< D.L.	< D.L.	22290.51	3.05	3.93	3160.80	105.46	158.20	0.24
Sena 8	Getino Bed	116.46	0.78	8.54	< D.L.	< D.L.	14258.10	2.45	3.16	3797.31	126.70	190.05	0.22
Sena 9	Getino Bed	139.96	0.93	10.06	< D.L.	< D.L.	10804.10	2.32	2.98	4121.42	137.52	206.27	0.22
Sena 10	Getino Bed	145.76	0.97	10.03	< D.L.	< D.L.	9991.94	2.28	2.94	4376.50	146.03	219.04	0.21
Sena 11	Bernesga Mb.	376.99	2.51	21.35	< D.L.	9.39	-1665.43	3.16	4.06	6015.69	200.72	301.08	0.17
Sena 12	Bernesga Mb.	440.91	2.94	25.78	< D.L.	10.74	-2458.47	3.64	4.69	6775.92	226.09	339.13	0.18
Sena 13	Bernesga Mb.	363.26	2.42	22.73	< D.L.	< D.L.	-5352.37	2.67	3.43	6477.77	216.14	324.21	0.19
Sena 14	Bernesga Mb.	393.94	2.63	22.01	< D.L.	10.36	2169.24	3.69	4.75	6544.48	218.36	327.55	0.17
Sena 15	Bernesga Mb.	415.15	2.77	26.50	< D.L.	< D.L.	-5787.28	3.08	3.97	7035.81	234.76	352.14	0.19
Sena 16	Bernesga Mb.	352.41	2.35	15.98	< D.L.	< D.L.	24175.94	5.53	7.11	5233.29	174.62	261.92	0.14
Sena 17	Bernesga Mb.	404.03	2.69	21.27	< D.L.	9.55	-8201.09	2.74	3.53	6616.36	220.76	331.14	0.16
Sena 18	Bernesga Mb.	430.83	2.87	25.48	< D.L.	9.55	572.08	3.86	4.96	7099.81	236.89	355.34	0.18
Sena 19	Bernesga Mb.	385.88	2.57	20.75	< D.L.	< D.L.	-1567.86	3.25	4.18	6388.83	213.17	319.76	0.16
Sena 20	Bernesga Mb.	418.79	2.79	23.32	< D.L.	9.86	-5874.86	3.11	4.00	6852.83	228.65	342.98	0.17
Sena 21	Bernesga Mb.	456.13	3.04	22.32	< D.L.	11.31	-13305.68	2.69	3.46	6664.53	222.37	333.56	0.15
Sena 22	Bernesga Mb.	435.65	2.90	22.98	< D.L.	10.49	-8755.88	2.97	3.82	6850.70	228.58	342.87	0.16
Sena 23	Bernesga Mb.	443.70	2.96	21.23	< D.L.	< D.L.	12150.57	5.13	6.60	6891.21	229.93	344.90	0.14
Sena 24	Bernesga Mb.	438.75	2.93	22.15	< D.L.	9.61	-8940.39	2.98	3.83	7250.52	241.92	362.88	0.15
Sena 25	Bernesga Mb.	468.16	3.12	22.19	< D.L.	10.95	-13425.57	2.79	3.59	7410.09	247.25	370.87	0.14

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
Sena 1	Barrios Fm	-0.66	< D.L.	0.50	1.72	1.03	0.97	0.01	4.45
Sena 2	Getino Bed	-0.65	< D.L.	0.61	1.65	0.93	1.08	-0.03	4.85
Sena 3	Getino Bed	-0.61	< D.L.	0.51	1.46	0.66	1.52	-0.18	6.23
Sena 4	Getino Bed	-0.58	< D.L.	0.52	1.58	0.74	1.35	-0.13	5.11
Sena 5	Getino Bed	-0.63	< D.L.	0.53	1.45	0.67	1.50	-0.18	4.23
Sena 6	Getino Bed	-0.70	< D.L.	0.54	1.04	0.46	2.16	-0.33	10.69
Sena 7	Getino Bed	-0.63	< D.L.	0.64	1.09	0.47	2.14	-0.33	9.05
Sena 8	Getino Bed	-0.66	< D.L.	0.55	1.00	0.44	2.27	-0.36	10.29
Sena 9	Getino Bed	-0.67	< D.L.	0.52	0.93	0.42	2.40	-0.38	11.13
Sena 10	Getino Bed	-0.69	< D.L.	0.51	0.92	0.42	2.40	-0.38	11.62
Sena 11	Bernesga Mb.	-0.77	0.04	0.65	0.38	0.34	2.92	-0.46	17.17
Sena 12	Bernesga Mb.	-0.76	0.04	0.72	0.29	0.33	3.02	-0.48	17.20
Sena 13	Bernesga Mb.	-0.73	< D.L.	0.58	0.39	0.34	2.95	-0.47	15.72
Sena 14	Bernesga Mb.	-0.78	0.04	0.72	0.33	0.34	2.93	-0.47	17.51
Sena 15	Bernesga Mb.	-0.72	< D.L.	0.64	0.30	0.33	3.03	-0.48	15.82
Sena 16	Bernesga Mb.	-0.87	< D.L.	0.90	0.40	0.36	2.74	-0.44	20.14
Sena 17	Bernesga Mb.	-0.80	0.04	0.59	0.33	0.34	2.91	-0.46	18.46
Sena 18	Bernesga Mb.	-0.75	0.03	0.74	0.26	0.33	3.01	-0.48	16.97
Sena 19	Bernesga Mb.	-0.79	< D.L.	0.67	0.33	0.34	2.90	-0.46	17.98
Sena 20	Bernesga Mb.	-0.78	0.04	0.65	0.28	0.34	2.97	-0.47	17.75
Sena 21	Bernesga Mb.	-0.83	0.04	0.59	0.27	0.34	2.94	-0.47	20.04
Sena 22	Bernesga Mb.	-0.80	0.04	0.63	0.27	0.34	2.96	-0.47	18.69
Sena 23	Bernesga Mb.	-0.84	< D.L.	0.87	0.22	0.34	2.91	-0.46	20.30
Sena 24	Bernesga Mb.	-0.82	0.03	0.63	0.25	0.34	2.94	-0.47	19.40
Sena 25	Bernesga Mb.	-0.85	0.04	0.60	0.25	0.34	2.94	-0.47	20.67

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
Sena 1	Barrios Fm	0.38	0.76	3.17	51.88	1.72	0.02	1.85	42.39	0.01
Sena 2	Getino Bed	0.40	0.83	4.03	44.19	1.65	0.02	2.07	38.48	0.00
Sena 3	Getino Bed	0.48	1.22	3.22	28.78	1.46	0.03	1.07	35.59	0.00
Sena 4	Getino Bed	0.45	1.06	3.29	37.62	1.58	0.03	1.43	39.49	0.00
Sena 5	Getino Bed	0.72	1.44	3.39	28.21	1.45	0.04	1.11	32.29	0.00
Sena 6	Getino Bed	0.70	2.20	3.50	10.84	1.04	0.09	0.47	29.96	0.00
Sena 7	Getino Bed	0.69	2.16	4.37	12.36	1.09	0.08	0.70	26.38	0.00
Sena 8	Getino Bed	0.75	2.46	3.51	10.04	1.00	0.10	0.45	28.12	0.00
Sena 9	Getino Bed	0.84	2.85	3.31	8.43	0.93	0.12	0.35	30.10	0.00
Sena 10	Getino Bed	0.84	2.84	3.27	8.29	0.92	0.12	0.34	32.16	0.00
Sena 11	Bernesga Mb.	1.46	5.73	5.46	2.38	0.38	0.42	0.18	27.77	0.00
Sena 12	Bernesga Mb.	1.71	6.87	6.28	1.93	0.29	0.52	0.18	30.60	0.00
Sena 13	Bernesga Mb.	1.54	6.09	3.82	2.48	0.39	0.40	0.16	31.04	0.00
Sena 14	Bernesga Mb.	1.50	5.90	6.31	2.12	0.33	0.47	0.20	31.01	0.00
Sena 15	Bernesga Mb.	1.75	7.05	4.41	1.99	0.30	0.50	0.16	32.91	0.00
Sena 16	Bernesga Mb.	1.17	4.36	7.90	2.51	0.40	0.40	0.34	28.00	0.00
Sena 17	Bernesga Mb.	1.46	5.71	4.88	2.14	0.33	0.47	0.15	35.00	0.00
Sena 18	Bernesga Mb.	1.69	6.79	6.47	1.81	0.26	0.55	0.19	32.65	0.00
Sena 19	Bernesga Mb.	1.43	5.58	4.64	2.14	0.33	0.47	0.18	34.34	0.00
Sena 20	Bernesga Mb.	1.57	6.24	5.43	1.91	0.28	0.52	0.16	36.07	0.00
Sena 21	Bernesga Mb.	1.52	5.98	4.98	1.85	0.27	0.54	0.13	39.68	0.00
Sena 22	Bernesga Mb.	1.55	6.15	5.29	1.86	0.27	0.54	0.15	37.75	0.00
Sena 23	Bernesga Mb.	1.46	5.70	7.33	1.67	0.22	0.60	0.25	35.99	0.00
Sena 24	Bernesga Mb.	1.51	5.94	5.22	1.79	0.25	0.56	0.15	38.60	0.00
Sena 25	Bernesga Mb.	1.51	5.95	5.08	1.76	0.25	0.57	0.13	39.34	0.00

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Zr/Sc	Cr/Th	Th/Sc
Sena 1	Barrios Fm	4.73	0.09	535.97	< D.L.	20.39	< D.L.	1.29	5.44	< D.L.	7.79	2.29	58.57	2.97	0.62
Sena 2	Getino Bed	9.84	-1.52	-9135.76	< D.L.	50.79	0.23	0.97	9.08	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Sena 3	Getino Bed	16.92	-0.96	-5783.18	< D.L.	< D.L.	< D.L.	< D.L.	2.18	< D.L.	< D.L.	1.67	< D.L.	< D.L.	< D.L.
Sena 4	Getino Bed	15.28	-0.10	-599.93	< D.L.	< D.L.	< D.L.	< D.L.	2.00	< D.L.	< D.L.	0.97	< D.L.	< D.L.	< D.L.
Sena 5	Getino Bed	14.20	-0.28	-1704.32	< D.L.	< D.L.	< D.L.	< D.L.	2.15	< D.L.	< D.L.	1.02	< D.L.	< D.L.	< D.L.
Sena 6	Getino Bed	11.31	0.05	309.21	< D.L.	41.06	< D.L.	0.91	2.11	< D.L.	< D.L.	4.33	< D.L.	3.16	< D.L.
Sena 7	Getino Bed	11.84	0.07	415.28	< D.L.	58.93	0.44	0.58	2.14	< D.L.	< D.L.	2.96	< D.L.	2.53	< D.L.
Sena 8	Getino Bed	12.26	0.07	397.31	< D.L.	40.36	< D.L.	0.84	1.78	< D.L.	< D.L.	2.62	< D.L.	5.14	< D.L.
Sena 9	Getino Bed	13.57	0.05	326.23	< D.L.	53.94	< D.L.	0.89	1.96	< D.L.	< D.L.	2.12	< D.L.	8.48	< D.L.
Sena 10	Getino Bed	13.31	0.05	311.01	< D.L.	85.34	0.24	0.89	1.82	< D.L.	< D.L.	2.56	< D.L.	7.46	< D.L.
Sena 11	Bernesga Mb.	25.04	0.05	323.09	< D.L.	144.19	0.36	0.78	1.19	< D.L.	< D.L.	4.05	< D.L.	7.64	< D.L.
Sena 12	Bernesga Mb.	26.00	0.06	337.45	< D.L.	187.76	0.43	0.74	1.05	< D.L.	< D.L.	4.95	< D.L.	7.83	< D.L.
Sena 13	Bernesga Mb.	22.41	0.05	313.36	< D.L.	145.06	0.28	0.73	1.04	< D.L.	< D.L.	5.50	< D.L.	6.27	< D.L.
Sena 14	Bernesga Mb.	24.05	0.06	340.13	< D.L.	171.41	0.42	0.66	1.44	< D.L.	< D.L.	4.16	< D.L.	7.21	< D.L.
Sena 15	Bernesga Mb.	23.58	0.05	323.37	< D.L.	173.29	0.24	0.73	1.12	< D.L.	< D.L.	5.51	< D.L.	7.69	< D.L.
Sena 16	Bernesga Mb.	26.91	0.06	337.41	< D.L.	132.75	0.38	0.70	2.06	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Sena 17	Bernesga Mb.	24.40	0.05	310.23	< D.L.	145.99	0.18	0.75	1.32	< D.L.	< D.L.	5.35	< D.L.	6.95	< D.L.
Sena 18	Bernesga Mb.	24.25	0.05	326.87	< D.L.	168.95	0.31	0.66	1.17	< D.L.	9.42	4.34	8.32	8.38	0.63
Sena 19	Bernesga Mb.	24.14	0.05	322.36	< D.L.	169.00	0.23	0.81	1.65	62.77	< D.L.	4.64	< D.L.	8.25	< D.L.
Sena 20	Bernesga Mb.	24.42	0.05	318.57	< D.L.	197.43	0.28	0.79	1.34	< D.L.	< D.L.	5.57	< D.L.	7.99	< D.L.
Sena 21	Bernesga Mb.	27.35	0.05	299.67	< D.L.	189.75	0.25	0.75	1.32	53.61	< D.L.	7.19	< D.L.	6.14	< D.L.
Sena 22	Bernesga Mb.	25.41	0.05	321.11	< D.L.	216.74	0.35	0.80	1.27	< D.L.	< D.L.	6.44	< D.L.	7.19	< D.L.
Sena 23	Bernesga Mb.	25.73	0.06	334.01	< D.L.	179.41	0.27	0.71	1.73	64.99	< D.L.	3.46	< D.L.	10.48	< D.L.
Sena 24	Bernesga Mb.	24.18	0.06	337.69	< D.L.	196.01	0.27	0.77	1.41	< D.L.	< D.L.	6.69	< D.L.	6.52	< D.L.
Sena 25	Bernesga Mb.	25.25	0.05	307.41	< D.L.	174.23	0.15	0.77	1.49	< D.L.	13.68	6.66	7.75	6.74	1.05

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
Sena 1	Barrios Fm	40.90	0.02	0.30	160.10	31.77	39.16	< D.L.	0.24	4.22
Sena 2	Getino Bed	12.46	0.08	0.18	-1599.74	12.87	-8.44	< D.L.	0.11	9.38
Sena 3	Getino Bed	9.86	0.10	0.24	-1397.46	< D.L.	-2.18	< D.L.	< D.L.	< D.L.
Sena 4	Getino Bed	3.36	0.30	0.09	-53.79	< D.L.	-3.43	< D.L.	< D.L.	< D.L.
Sena 5	Getino Bed	5.85	0.17	0.11	-180.73	< D.L.	-2.02	< D.L.	< D.L.	< D.L.
Sena 6	Getino Bed	15.15	0.07	0.17	53.38	16.61	0.18	< D.L.	0.43	2.31
Sena 7	Getino Bed	13.52	0.07	0.17	69.08	23.40	2.76	< D.L.	0.27	3.71
Sena 8	Getino Bed	7.84	0.13	0.10	39.40	9.33	-0.34	< D.L.	0.47	2.12
Sena 9	Getino Bed	3.27	0.31	0.05	15.68	3.67	-0.10	< D.L.	0.45	2.20
Sena 10	Getino Bed	3.20	0.31	0.05	14.67	3.60	-0.02	< D.L.	0.49	2.05
Sena 11	Bernesga Mb.	2.05	0.49	0.04	13.08	2.62	2.96	< D.L.	0.66	1.52
Sena 12	Bernesga Mb.	1.28	0.78	0.03	10.04	1.73	3.90	< D.L.	0.70	1.42
Sena 13	Bernesga Mb.	1.95	0.51	0.04	13.32	2.66	2.52	< D.L.	0.70	1.42
Sena 14	Bernesga Mb.	1.84	0.54	0.04	13.05	2.79	4.28	0.69	0.46	2.18
Sena 15	Bernesga Mb.	1.25	0.80	0.03	10.02	1.71	2.93	< D.L.	0.65	1.54
Sena 16	Bernesga Mb.	2.58	0.39	0.04	14.88	3.69	5.21	< D.L.	0.34	2.95
Sena 17	Bernesga Mb.	1.36	0.73	0.03	9.52	1.82	2.35	< D.L.	0.57	1.76
Sena 18	Bernesga Mb.	1.03	0.97	0.02	7.93	1.58	3.71	< D.L.	0.56	1.79
Sena 19	Bernesga Mb.	1.27	0.79	0.03	9.15	1.58	2.64	< D.L.	0.49	2.05
Sena 20	Bernesga Mb.	0.93	1.08	0.02	7.26	1.17	2.71	< D.L.	0.59	1.69
Sena 21	Bernesga Mb.	0.91	1.10	0.02	7.24	1.22	1.82	0.98	0.57	1.77
Sena 22	Bernesga Mb.	0.84	1.19	0.02	6.84	1.05	2.77	< D.L.	0.63	1.58
Sena 23	Bernesga Mb.	0.89	1.12	0.02	6.61	1.25	4.28	< D.L.	0.41	2.43
Sena 24	Bernesga Mb.	0.82	1.22	0.02	6.52	1.07	2.29	< D.L.	0.54	1.84
Sena 25	Bernesga Mb.	0.85	1.18	0.02	6.13	1.10	2.17	< D.L.	0.52	1.94

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
Sena 1	Barrios Fm	4.47	< D.L.	95.11	< D.L.	< D.L.	< D.L.	< D.L.	22.52
Sena 2	Getino Bed	38.66	< D.L.	146.84	< D.L.	< D.L.	10.78	33.65	15.65
Sena 3	Getino Bed	2.37	< D.L.	35.81	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Sena 4	Getino Bed	6.95	< D.L.	39.55	< D.L.	< D.L.	9.23	< D.L.	< D.L.
Sena 5	Getino Bed	5.42	< D.L.	31.13	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Sena 6	Getino Bed	14.13	1.45	24.07	< D.L.	< D.L.	2.89	< D.L.	10.41
Sena 7	Getino Bed	6.69	< D.L.	25.25	< D.L.	< D.L.	< D.L.	11.04	6.80
Sena 8	Getino Bed	1.22	1.21	20.81	< D.L.	< D.L.	< D.L.	< D.L.	9.82
Sena 9	Getino Bed	1.42	< D.L.	24.04	< D.L.	< D.L.	< D.L.	< D.L.	10.92
Sena 10	Getino Bed	1.78	< D.L.	22.82	< D.L.	< D.L.	< D.L.	5.45	11.14
Sena 11	Bernesga Mb.	2.53	0.59	10.62	< D.L.	< D.L.	2.06	3.86	6.98
Sena 12	Bernesga Mb.	1.61	0.59	10.64	< D.L.	< D.L.	1.38	4.59	7.48
Sena 13	Bernesga Mb.	1.67	0.70	11.48	< D.L.	< D.L.	2.68	3.25	8.07
Sena 14	Bernesga Mb.	1.69	0.62	14.10	< D.L.	< D.L.	2.90	5.85	6.48
Sena 15	Bernesga Mb.	1.38	0.79	13.37	< D.L.	< D.L.	1.84	3.14	8.69
Sena 16	Bernesga Mb.	4.38	< D.L.	14.83	< D.L.	< D.L.	2.91	5.65	5.03
Sena 17	Bernesga Mb.	0.71	0.56	13.78	< D.L.	< D.L.	1.30	2.42	7.83
Sena 18	Bernesga Mb.	1.90	0.74	12.83	< D.L.	< D.L.	2.70	3.93	7.18
Sena 19	Bernesga Mb.	1.42	0.55	17.29	< D.L.	< D.L.	2.39	3.97	8.44
Sena 20	Bernesga Mb.	1.20	0.61	15.22	< D.L.	2.28	1.22	4.33	9.03
Sena 21	Bernesga Mb.	1.01	0.48	14.52	< D.L.	2.79	0.83	3.57	8.22
Sena 22	Bernesga Mb.	1.42	0.63	14.29	< D.L.	3.97	2.27	5.06	9.04
Sena 23	Bernesga Mb.	1.92	0.60	16.86	< D.L.	3.68	2.84	4.52	6.94
Sena 24	Bernesga Mb.	1.04	0.59	15.54	< D.L.	3.52	2.37	4.21	8.45
Sena 25	Bernesga Mb.	0.61	0.55	15.79	< D.L.	2.14	1.68	2.40	8.15

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
Sena 1	Barrios Fm	< D.L.	295.82	474.20	684.83	715.42	1.00	324.06	< D.L.
Sena 2	Getino Bed	< D.L.	210.77	422.56	-136.41	201.53	0.81	288.77	< D.L.
Sena 3	Getino Bed	< D.L.	112.85	266.41	-35.69	161.75	1.00	182.06	< D.L.
Sena 4	Getino Bed	< D.L.	148.46	349.11	-67.82	66.46	1.00	238.57	< D.L.
Sena 5	Getino Bed	< D.L.	111.52	267.91	-29.15	84.59	1.00	183.08	< D.L.
Sena 6	Getino Bed	< D.L.	57.59	110.51	2.03	172.87	1.00	75.52	< D.L.
Sena 7	Getino Bed	< D.L.	63.11	193.80	32.55	159.17	0.70	132.44	< D.L.
Sena 8	Getino Bed	< D.L.	47.78	109.09	-4.00	91.64	1.00	74.55	< D.L.
Sena 9	Getino Bed	< D.L.	38.55	86.05	-1.20	40.12	1.00	58.80	< D.L.
Sena 10	Getino Bed	< D.L.	37.06	80.24	-0.22	40.15	0.81	54.83	< D.L.
Sena 11	Bernesga Mb.	< D.L.	16.14	33.68	26.36	18.31	0.73	23.01	< D.L.
Sena 12	Bernesga Mb.	< D.L.	15.22	28.64	39.59	12.96	0.70	19.57	< D.L.
Sena 13	Bernesga Mb.	< D.L.	16.21	34.24	27.78	21.48	0.78	23.40	< D.L.
Sena 14	Bernesga Mb.	< D.L.	14.26	108.91	42.01	18.07	0.71	74.43	< D.L.
Sena 15	Bernesga Mb.	< D.L.	14.55	30.17	34.89	14.88	0.81	20.61	< D.L.
Sena 16	Bernesga Mb.	< D.L.	14.94	36.17	37.53	18.56	0.72	24.72	< D.L.
Sena 17	Bernesga Mb.	< D.L.	13.89	30.36	24.52	14.25	0.85	20.75	< D.L.
Sena 18	Bernesga Mb.	< D.L.	13.24	29.17	40.64	11.33	0.77	19.94	< D.L.
Sena 19	Bernesga Mb.	0.28	14.71	32.12	27.63	13.32	0.81	21.95	0.15
Sena 20	Bernesga Mb.	< D.L.	13.86	29.85	30.87	10.56	0.78	20.40	< D.L.
Sena 21	Bernesga Mb.	0.27	12.72	27.16	20.07	10.00	0.80	18.56	0.14
Sena 22	Bernesga Mb.	< D.L.	13.46	28.92	31.26	9.49	0.74	19.76	< D.L.
Sena 23	Bernesga Mb.	0.26	12.93	54.70	41.79	8.71	0.79	37.38	0.14
Sena 24	Bernesga Mb.	< D.L.	12.78	28.40	25.34	9.04	0.79	19.41	< D.L.
Sena 25	Bernesga Mb.	< D.L.	12.23	26.20	22.90	8.94	0.87	17.91	< D.L.

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
Sena 1	Barrios Fm	< D.L.	< D.L.	2.48	< D.L.	< D.L.	8.48	0.93	0.41	0.00	< D.L.	< D.L.
Sena 2	Getino Bed	< D.L.	< D.L.	1.03	< D.L.	< D.L.	9.31	0.97	3.98	0.00	< D.L.	< D.L.
Sena 3	Getino Bed	< D.L.	< D.L.	1.58	< D.L.	< D.L.	4.37	0.64	0.38	< D.L.	< D.L.	< D.L.
Sena 4	Getino Bed	< D.L.	< D.L.	0.58	< D.L.	< D.L.	5.40	0.73	0.85	< D.L.	< D.L.	< D.L.
Sena 5	Getino Bed	< D.L.	< D.L.	0.89	< D.L.	< D.L.	4.69	0.67	0.87	< D.L.	< D.L.	< D.L.
Sena 6	Getino Bed	2.27	0.44	3.20	119.21	< D.L.	2.33	0.37	5.57	0.00	< D.L.	< D.L.
Sena 7	Getino Bed	< D.L.	< D.L.	2.71	< D.L.	< D.L.	2.96	0.47	2.21	0.00	< D.L.	< D.L.
Sena 8	Getino Bed	1.58	0.63	2.16	75.92	< D.L.	2.05	0.31	0.50	0.00	< D.L.	< D.L.
Sena 9	Getino Bed	< D.L.	< D.L.	1.36	< D.L.	< D.L.	1.64	0.22	0.70	0.01	< D.L.	< D.L.
Sena 10	Getino Bed	< D.L.	< D.L.	1.42	< D.L.	< D.L.	1.63	0.21	0.91	0.01	< D.L.	< D.L.
Sena 11	Bernesga Mb.	1.55	0.64	1.69	31.10	< D.L.	1.06	0.02	3.36	0.01	< D.L.	< D.L.
Sena 12	Bernesga Mb.	1.62	0.62	1.52	22.00	< D.L.	1.01	0.00	2.51	0.01	< D.L.	< D.L.
Sena 13	Bernesga Mb.	1.83	0.55	2.00	30.56	< D.L.	0.84	-0.08	2.15	0.01	< D.L.	< D.L.
Sena 14	Bernesga Mb.	1.45	0.69	1.96	29.11	< D.L.	1.20	0.08	2.35	0.01	< D.L.	< D.L.
Sena 15	Bernesga Mb.	1.43	0.70	1.84	18.82	< D.L.	0.83	-0.08	2.02	0.01	< D.L.	< D.L.
Sena 16	Bernesga Mb.	< D.L.	< D.L.	1.72	< D.L.	< D.L.	2.47	0.39	5.44	0.01	< D.L.	< D.L.
Sena 17	Bernesga Mb.	2.00	0.50	1.78	25.35	< D.L.	0.92	-0.04	1.01	0.01	< D.L.	< D.L.
Sena 18	Bernesga Mb.	1.16	0.86	1.68	15.30	< D.L.	1.08	0.03	2.89	0.01	< D.L.	< D.L.
Sena 19	Bernesga Mb.	1.87	0.53	1.62	24.37	< D.L.	1.12	0.05	1.94	0.01	< D.L.	< D.L.
Sena 20	Bernesga Mb.	1.86	0.54	1.58	17.34	0.27	0.95	-0.02	1.78	0.01	< D.L.	< D.L.
Sena 21	Bernesga Mb.	2.78	0.36	1.65	20.73	0.17	0.86	-0.06	1.62	0.01	< D.L.	< D.L.
Sena 22	Bernesga Mb.	2.00	0.50	1.54	15.12	0.16	0.92	-0.03	2.19	0.01	< D.L.	< D.L.
Sena 23	Bernesga Mb.	1.10	0.91	1.43	14.47	0.16	1.73	0.24	3.01	0.01	< D.L.	< D.L.
Sena 24	Bernesga Mb.	2.21	0.45	1.57	15.42	0.17	0.96	-0.02	1.61	0.01	< D.L.	< D.L.
Sena 25	Bernesga Mb.	2.19	0.46	1.60	16.17	0.26	0.90	-0.05	1.01	0.01	< D.L.	< D.L.

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
Sena 1	Barrios Fm	< D.L.	< D.L.	< D.L.	-2.29	2.19	64.78	423923.77	< D.L.	4.80
Sena 2	Getino Bed	< D.L.	< D.L.	< D.L.	< D.L.	1.20	20.76	412308.39	457.67	6.37
Sena 3	Getino Bed	< D.L.	< D.L.	< D.L.	-1.67	1.07	25.85	422199.73	< D.L.	3.40
Sena 4	Getino Bed	< D.L.	< D.L.	< D.L.	-0.97	0.90	8.08	416078.36	112.20	4.38
Sena 5	Getino Bed	< D.L.	< D.L.	< D.L.	-1.02	1.29	13.65	418159.66	< D.L.	3.73
Sena 6	Getino Bed	< D.L.	< D.L.	< D.L.	1.39	3.99	68.19	417051.82	113.80	-1.13
Sena 7	Getino Bed	< D.L.	< D.L.	< D.L.	-2.96	3.18	52.58	393482.29	364.60	2.13
Sena 8	Getino Bed	< D.L.	< D.L.	< D.L.	2.34	3.84	37.66	405332.74	< D.L.	-1.47
Sena 9	Getino Bed	< D.L.	< D.L.	< D.L.	-2.12	4.18	19.81	417063.17	< D.L.	-3.70
Sena 10	Getino Bed	< D.L.	< D.L.	< D.L.	-2.56	4.43	20.65	427879.58	280.30	-4.24
Sena 11	Bernesga Mb.	< D.L.	< D.L.	< D.L.	3.78	6.11	24.35	412156.53	786.70	-19.38
Sena 12	Bernesga Mb.	< D.L.	< D.L.	< D.L.	4.21	6.89	20.15	420837.85	928.93	-22.82
Sena 13	Bernesga Mb.	< D.L.	< D.L.	< D.L.	3.51	6.58	27.53	409219.77	759.38	-19.82
Sena 14	Bernesga Mb.	< D.L.	< D.L.	< D.L.	4.47	6.63	25.12	399190.57	2387.10	-19.05
Sena 15	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.07	7.16	21.80	403842.05	729.90	-22.55
Sena 16	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	5.30	23.07	399696.91	1064.10	-10.24
Sena 17	Bernesga Mb.	< D.L.	< D.L.	< D.L.	2.66	6.73	20.31	412286.56	529.37	-22.73
Sena 18	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.91	7.21	17.22	394369.09	1008.70	-21.39
Sena 19	Bernesga Mb.	< D.L.	< D.L.	< D.L.	2.80	6.50	18.13	393465.54	865.97	-19.79
Sena 20	Bernesga Mb.	< D.L.	< D.L.	< D.L.	3.43	6.99	15.61	397471.18	820.37	-22.76
Sena 21	Bernesga Mb.	< D.L.	< D.L.	< D.L.	0.58	6.80	16.10	424472.05	1296.03	-26.90
Sena 22	Bernesga Mb.	< D.L.	< D.L.	< D.L.	3.20	6.99	14.59	405670.62	1126.30	-24.48
Sena 23	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.97	7.00	13.64	387779.89	1151.30	-18.49
Sena 24	Bernesga Mb.	< D.L.	< D.L.	< D.L.	2.38	7.38	13.99	399709.24	1017.50	-24.70
Sena 25	Bernesga Mb.	< D.L.	< D.L.	< D.L.	2.47	7.54	14.77	421679.14	674.03	-27.54

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
Sena 1	Barrios Fm	2.24	0.92	2.74	0.45	77.67	81.65
Sena 2	Getino Bed	2.98	1.05	3.54	0.46	79.06	82.92
Sena 3	Getino Bed	1.59	1.63	2.47	0.39	82.48	86.16
Sena 4	Getino Bed	2.05	1.24	2.71	0.43	78.97	83.63
Sena 5	Getino Bed	1.74	1.65	2.63	0.40	76.33	80.86
Sena 6	Getino Bed	-0.53	4.02	1.63	-0.48	89.51	91.45
Sena 7	Getino Bed	1.00	3.37	2.81	0.26	87.36	90.05
Sena 8	Getino Bed	-0.69	4.19	1.57	-0.78	88.92	91.15
Sena 9	Getino Bed	-1.73	5.04	0.98	2.30	89.72	91.75
Sena 10	Getino Bed	-1.98	5.25	0.84	1.73	90.21	92.07
Sena 11	Bernesga Mb.	-9.06	13.57	-1.77	0.84	93.45	94.50
Sena 12	Bernesga Mb.	-10.66	15.87	-2.14	0.83	93.41	94.50
Sena 13	Bernesga Mb.	-9.26	13.08	-2.24	0.81	92.74	94.02
Sena 14	Bernesga Mb.	-8.90	14.18	-1.29	0.87	93.58	94.60
Sena 15	Bernesga Mb.	-10.54	14.95	-2.51	0.81	92.75	94.06
Sena 16	Bernesga Mb.	-4.79	12.69	2.03	1.74	94.57	95.27
Sena 17	Bernesga Mb.	-10.62	14.55	-2.81	0.79	93.96	94.86
Sena 18	Bernesga Mb.	-9.99	15.51	-1.67	0.86	93.31	94.43
Sena 19	Bernesga Mb.	-9.25	13.89	-1.79	0.84	93.78	94.73
Sena 20	Bernesga Mb.	-10.63	15.08	-2.54	0.81	93.67	94.67
Sena 21	Bernesga Mb.	-12.57	16.42	-3.75	0.77	94.47	95.25
Sena 22	Bernesga Mb.	-11.44	15.68	-3.02	0.79	94.02	94.92
Sena 23	Bernesga Mb.	-8.64	15.97	-0.06	0.99	94.56	95.31
Sena 24	Bernesga Mb.	-11.54	15.79	-3.06	0.79	94.27	95.10
Sena 25	Bernesga Mb.	-12.87	16.85	-3.82	0.77	94.66	95.38

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
Sena 1	Barrios Fm	69.29	-6.55	-6.67	-6.53
Sena 2	Getino Bed	70.01	-5.52	-6.85	-5.52
Sena 3	Getino Bed	71.20	-5.78	-6.12	-5.77
Sena 4	Getino Bed	68.46	-5.98	-6.39	-5.97
Sena 5	Getino Bed	67.86	-5.53	-6.16	-5.53
Sena 6	Getino Bed	77.21	-4.55	-4.48	-4.53
Sena 7	Getino Bed	74.25	-4.37	-4.88	-4.35
Sena 8	Getino Bed	75.92	-4.54	-4.15	-4.52
Sena 9	Getino Bed	76.60	-4.16	-3.50	-4.14
Sena 10	Getino Bed	77.37	-4.02	-3.45	-4.00
Sena 11	Bernesga Mb.	81.43	1.95	-0.14	1.97
Sena 12	Bernesga Mb.	81.06	3.68	1.26	3.70
Sena 13	Bernesga Mb.	79.92	1.83	1.51	1.86
Sena 14	Bernesga Mb.	81.65	2.77	-0.12	2.79
Sena 15	Bernesga Mb.	79.70	3.40	2.81	3.43
Sena 16	Bernesga Mb.	84.34	6.32	-1.74	6.34
Sena 17	Bernesga Mb.	82.50	2.41	0.14	2.43
Sena 18	Bernesga Mb.	80.88	3.65	1.21	3.67
Sena 19	Bernesga Mb.	82.17	3.83	0.79	3.86
Sena 20	Bernesga Mb.	81.74	2.84	0.69	2.86
Sena 21	Bernesga Mb.	83.56	3.95	0.53	3.98
Sena 22	Bernesga Mb.	82.53	3.35	0.65	3.38
Sena 23	Bernesga Mb.	83.84	7.96	0.57	7.99
Sena 24	Bernesga Mb.	83.13	3.68	0.53	3.71
Sena 25	Bernesga Mb.	83.99	4.40	0.61	4.44

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
Sena 1	Barrios Fm	-6.27	3.05	-37.22	0.35
Sena 2	Getino Bed	-6.44	3.27	-38.34	0.32
Sena 3	Getino Bed	-5.61	3.37	-38.28	0.48
Sena 4	Getino Bed	-5.92	3.39	-37.64	0.41
Sena 5	Getino Bed	-5.55	3.41	-38.37	0.47
Sena 6	Getino Bed	-3.75	3.32	-39.06	0.68
Sena 7	Getino Bed	-4.16	3.45	-38.76	0.58
Sena 8	Getino Bed	-3.36	3.50	-38.47	0.69
Sena 9	Getino Bed	-2.62	3.51	-39.68	0.74
Sena 10	Getino Bed	-2.58	3.39	-40.50	0.75
Sena 11	Bernesga Mb.	1.39	4.57	-45.19	0.85
Sena 12	Bernesga Mb.	3.05	4.73	-48.86	0.85
Sena 13	Bernesga Mb.	3.11	4.45	-44.68	0.86
Sena 14	Bernesga Mb.	1.45	4.23	-45.22	0.83
Sena 15	Bernesga Mb.	4.63	4.69	-46.78	0.86
Sena 16	Bernesga Mb.	-0.52	4.14	-49.84	0.75
Sena 17	Bernesga Mb.	1.66	4.63	-43.87	0.87
Sena 18	Bernesga Mb.	2.97	4.84	-46.94	0.84
Sena 19	Bernesga Mb.	2.28	4.57	-44.28	0.85
Sena 20	Bernesga Mb.	2.34	4.82	-44.28	0.86
Sena 21	Bernesga Mb.	2.11	4.78	-45.22	0.89
Sena 22	Bernesga Mb.	2.27	4.82	-44.49	0.87
Sena 23	Bernesga Mb.	2.09	4.40	-49.20	0.80
Sena 24	Bernesga Mb.	2.10	4.79	-43.63	0.87
Sena 25	Bernesga Mb.	2.18	4.71	-45.01	0.89

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
Sena 1	Barrios Fm	8.76	2.54	1.00	< D.L.	1.00	< D.L.	< D.L.
Sena 2	Getino Bed	20.37	2.63	1.00	< D.L.	1.00	< D.L.	< D.L.
Sena 3	Getino Bed	18.05	1.55	1.00	< D.L.	1.00	< D.L.	< D.L.
Sena 4	Getino Bed	21.86	1.98	1.00	< D.L.	1.00	< D.L.	< D.L.
Sena 5	Getino Bed	15.79	1.67	1.00	< D.L.	1.00	< D.L.	< D.L.
Sena 6	Getino Bed	5.31	0.86	1.00	4.00	1.00	2.00	8.00
Sena 7	Getino Bed	8.28	1.14	1.00	< D.L.	1.00	< D.L.	< D.L.
Sena 8	Getino Bed	5.54	0.86	1.00	4.00	1.00	2.00	8.00
Sena 9	Getino Bed	4.81	0.74	1.00	< D.L.	1.00	< D.L.	< D.L.
Sena 10	Getino Bed	4.47	0.71	1.00	< D.L.	1.00	< D.L.	< D.L.
Sena 11	Bernesga Mb.	4.50	0.49	4.00	4.00	1.00	< D.L.	9.00
Sena 12	Bernesga Mb.	4.61	0.49	4.00	4.00	1.00	< D.L.	9.00
Sena 13	Bernesga Mb.	3.53	0.46	4.00	4.00	1.00	< D.L.	9.00
Sena 14	Bernesga Mb.	4.83	0.51	4.00	4.00	1.00	< D.L.	9.00
Sena 15	Bernesga Mb.	3.76	0.46	4.00	4.00	1.00	< D.L.	9.00
Sena 16	Bernesga Mb.	9.05	0.56	1.00	< D.L.	1.00	< D.L.	< D.L.
Sena 17	Bernesga Mb.	3.55	0.44	4.00	4.00	1.00	< D.L.	9.00
Sena 18	Bernesga Mb.	4.66	0.50	4.00	4.00	1.00	< D.L.	9.00
Sena 19	Bernesga Mb.	4.36	0.44	4.00	4.00	4.00	< D.L.	12.00
Sena 20	Bernesga Mb.	3.89	0.46	4.00	4.00	1.00	< D.L.	9.00
Sena 21	Bernesga Mb.	3.46	0.40	4.00	4.00	4.00	< D.L.	12.00
Sena 22	Bernesga Mb.	3.71	0.44	4.00	4.00	1.00	< D.L.	9.00
Sena 23	Bernesga Mb.	6.38	0.48	4.00	4.00	4.00	< D.L.	12.00
Sena 24	Bernesga Mb.	3.52	0.42	4.00	4.00	1.00	< D.L.	9.00
Sena 25	Bernesga Mb.	3.22	0.39	4.00	4.00	1.00	< D.L.	9.00

4.2 Sena 26 - 50

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
Sena 26	Bernesga Mb.	60.63	52.87	44.45	157.96	97.33
Sena 27	Bernesga Mb.	55.86	43.73	43.75	143.34	87.48
Sena 28	Bernesga Mb.	50.49	55.24	45.16	150.89	100.40
Sena 29	Bernesga Mb.	54.72	59.00	45.71	159.43	104.71
Sena 30	Bernesga Mb.	56.53	52.57	47.99	157.09	100.56
Sena 31	Bernesga Mb.	61.97	53.80	44.09	159.86	97.89
Sena 32	Bernesga Mb.	72.45	56.40	42.75	171.60	99.15
Sena 33	Bernesga Mb.	93.99	53.15	41.69	188.84	94.84
Sena 34	Bernesga Mb.	70.71	34.87	44.77	150.36	79.64
Sena 35	Bernesga Mb.	85.59	48.43	44.92	178.94	93.35
Sena 36	Bernesga Mb.	86.14	49.48	47.03	182.65	96.50
Sena 37	Bernesga Mb.	91.30	46.43	45.22	182.95	91.65
Sena 38	Bernesga Mb.	79.68	48.25	42.41	170.34	90.67
Sena 39	Bernesga Mb.	69.22	26.04	43.71	138.97	69.75
Sena 40	Bernesga Mb.	100.33	54.00	44.57	198.90	98.57
Sena 41	Bernesga Mb.	92.97	51.21	45.98	190.15	97.18
Sena 42	Bernesga Mb.	96.47	46.98	46.68	190.13	93.66
Sena 43	Bernesga Mb.	97.05	41.51	47.04	185.61	88.56
Sena 44	Bernesga Mb.	104.83	41.76	44.32	190.91	86.08
Sena 45	Bernesga Mb.	101.64	51.37	41.43	194.44	92.80
Sena 46	Bernesga Mb.	69.35	< D.L.	40.74	110.10	40.74
Sena 47	Bernesga Mb.	< D.L.	< D.L.	40.79	40.79	40.79
Sena 48	Bernesga Mb.	82.86	46.54	42.30	171.70	88.84
Sena 49	Bernesga Mb.	61.55	27.22	41.81	130.58	69.03
Sena 50	Bernesga Mb.	74.28	49.76	40.86	164.90	90.62

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
Sena 26	Bernesga Mb.	72.51	83.27	66.85	222.62	150.12
Sena 27	Bernesga Mb.	66.80	68.87	65.79	201.46	134.66
Sena 28	Bernesga Mb.	60.37	86.99	67.91	215.27	154.90
Sena 29	Bernesga Mb.	65.44	92.92	68.73	227.09	161.65
Sena 30	Bernesga Mb.	67.60	82.79	72.16	222.55	154.95
Sena 31	Bernesga Mb.	74.11	84.72	66.30	225.13	151.02
Sena 32	Bernesga Mb.	86.64	88.81	64.29	239.75	153.11
Sena 33	Bernesga Mb.	112.40	83.71	62.69	258.80	146.40
Sena 34	Bernesga Mb.	84.56	54.92	67.32	206.80	122.24
Sena 35	Bernesga Mb.	102.35	76.27	67.55	246.17	143.82
Sena 36	Bernesga Mb.	103.01	77.92	70.72	251.65	148.64
Sena 37	Bernesga Mb.	109.17	73.12	68.00	250.29	141.12
Sena 38	Bernesga Mb.	95.28	75.99	63.78	235.05	139.77
Sena 39	Bernesga Mb.	82.77	41.01	65.73	189.51	106.74
Sena 40	Bernesga Mb.	119.97	85.04	67.02	272.03	152.06
Sena 41	Bernesga Mb.	111.17	80.64	69.14	260.95	149.78
Sena 42	Bernesga Mb.	115.36	73.99	70.20	259.54	144.18
Sena 43	Bernesga Mb.	116.05	65.37	70.74	252.17	136.12
Sena 44	Bernesga Mb.	125.36	65.76	66.65	257.77	132.41
Sena 45	Bernesga Mb.	121.55	80.89	62.30	264.74	143.20
Sena 46	Bernesga Mb.	82.93	< D.L.	61.27	144.20	61.27
Sena 47	Bernesga Mb.	< D.L.	< D.L.	61.34	61.34	61.34
Sena 48	Bernesga Mb.	99.08	73.29	63.61	235.99	136.91
Sena 49	Bernesga Mb.	73.60	42.87	62.87	179.34	105.74
Sena 50	Bernesga Mb.	88.83	78.36	61.44	228.63	139.80

Sample	Formation	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al2O3*5	10Al2O3
Sena 26	Bernesga Mb.	90.63	181.27	2.12	3.05	4.09	33.58	4.97	139.80	279.60
Sena 27	Bernesga Mb.	83.50	167.00	2.61	2.72	3.65	32.76	4.47	136.13	272.26
Sena 28	Bernesga Mb.	75.47	150.93	0.30	2.32	3.11	32.33	4.77	133.14	266.28
Sena 29	Bernesga Mb.	81.80	163.60	0.44	2.64	3.54	35.45	4.89	148.40	296.80
Sena 30	Bernesga Mb.	84.50	169.00	1.55	2.77	3.71	36.73	5.04	153.45	306.91
Sena 31	Bernesga Mb.	92.63	185.27	2.20	3.14	4.20	35.80	5.26	151.16	302.32
Sena 32	Bernesga Mb.	108.30	216.60	3.43	3.76	5.03	32.91	4.77	137.48	274.95
Sena 33	Bernesga Mb.	140.50	281.00	7.07	4.79	6.41	33.48	4.92	140.96	281.92
Sena 34	Bernesga Mb.	105.70	211.40	5.99	3.66	4.90	34.83	6.14	145.86	291.73
Sena 35	Bernesga Mb.	127.93	255.87	6.44	4.42	5.92	36.18	4.92	152.53	305.05
Sena 36	Bernesga Mb.	128.77	257.53	6.38	4.44	5.95	33.76	4.86	139.15	278.30
Sena 37	Bernesga Mb.	136.47	272.93	7.55	4.67	6.26	36.93	5.06	156.12	312.24
Sena 38	Bernesga Mb.	119.10	238.20	5.58	4.13	5.54	33.71	4.88	141.69	283.37
Sena 39	Bernesga Mb.	103.47	206.93	6.93	3.57	4.79	37.77	7.57	161.23	322.46
Sena 40	Bernesga Mb.	149.97	299.93	7.91	5.05	6.76	35.05	4.90	147.11	294.22
Sena 41	Bernesga Mb.	138.97	277.93	7.18	4.74	6.36	36.57	4.86	153.85	307.71
Sena 42	Bernesga Mb.	144.20	288.40	8.25	4.89	6.55	35.12	4.93	146.19	292.39
Sena 43	Bernesga Mb.	145.07	290.13	9.06	4.91	6.58	34.33	4.39	142.02	284.04
Sena 44	Bernesga Mb.	156.70	313.40	10.19	5.22	6.99	36.09	5.34	152.47	304.94
Sena 45	Bernesga Mb.	151.93	303.87	8.45	5.10	6.83	33.99	4.61	143.67	287.34
Sena 46	Bernesga Mb.	103.67	207.33	10.37	3.58	4.80	35.63	10.42	152.29	304.57
Sena 47	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	35.92	9.06	153.72	307.44
Sena 48	Bernesga Mb.	123.85	247.70	6.28	4.29	5.74	32.94	5.27	137.90	275.80
Sena 49	Bernesga Mb.	92.00	184.00	5.63	3.11	4.17	36.11	6.83	154.04	308.07
Sena 50	Bernesga Mb.	111.03	222.07	4.57	3.85	5.16	33.64	3.60	142.29	284.58

Sample	Formation	15Al2O3	Al2O3/10	K2O *5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	Ti Cal (ppm)	200TiO2	300TiO2	K2O/Al2O3
Sena 26	Bernesga Mb.	419.40	2.80	20.89	< D.L.	9.96	-9207.61	2.78	3.57	7047.89	235.16	352.74	0.15
Sena 27	Bernesga Mb.	408.39	2.72	20.56	< D.L.	< D.L.	-4741.47	3.13	4.02	7067.71	235.82	353.73	0.15
Sena 28	Bernesga Mb.	399.42	2.66	21.22	< D.L.	9.56	-8571.69	2.67	3.43	7175.49	239.42	359.13	0.16
Sena 29	Bernesga Mb.	445.20	2.97	21.48	< D.L.	11.06	-12796.15	2.65	3.41	6849.44	228.54	342.81	0.14
Sena 30	Bernesga Mb.	460.36	3.07	22.55	< D.L.	11.74	-13566.30	2.70	3.48	7085.98	236.43	354.65	0.15
Sena 31	Bernesga Mb.	453.48	3.02	20.72	< D.L.	11.25	-11083.70	2.89	3.72	7287.72	243.16	364.75	0.14
Sena 32	Bernesga Mb.	412.43	2.75	20.09	< D.L.	9.63	-9732.13	2.66	3.43	7250.10	241.91	362.86	0.15
Sena 33	Bernesga Mb.	422.88	2.82	19.59	< D.L.	10.09	-9917.83	2.74	3.52	7065.61	235.75	353.63	0.14
Sena 34	Bernesga Mb.	437.59	2.92	21.04	< D.L.	10.04	-2670.45	3.59	4.62	6380.22	212.88	319.33	0.14
Sena 35	Bernesga Mb.	457.58	3.05	21.11	< D.L.	10.73	-13471.88	2.69	3.46	6799.79	226.88	340.33	0.14
Sena 36	Bernesga Mb.	417.45	2.78	22.10	< D.L.	9.94	-9805.88	2.70	3.48	7064.35	235.71	353.57	0.16
Sena 37	Bernesga Mb.	468.36	3.12	21.25	< D.L.	10.14	-13028.56	2.83	3.64	7157.80	238.83	358.24	0.14
Sena 38	Bernesga Mb.	425.06	2.83	19.93	< D.L.	10.10	-10436.20	2.71	3.48	6997.87	233.49	350.24	0.14
Sena 39	Bernesga Mb.	483.69	3.22	20.54	< D.L.	10.66	2806.61	4.55	5.85	6655.17	222.06	333.09	0.13
Sena 40	Bernesga Mb.	441.33	2.94	20.94	< D.L.	9.63	-11383.62	2.75	3.54	7101.67	236.96	355.43	0.14
Sena 41	Bernesga Mb.	461.56	3.08	21.61	< D.L.	10.24	-13893.47	2.68	3.45	7251.88	241.97	362.95	0.14
Sena 42	Bernesga Mb.	438.58	2.92	21.94	< D.L.	9.91	-11108.37	2.76	3.55	7090.74	236.59	354.89	0.15
Sena 43	Bernesga Mb.	426.06	2.84	22.11	< D.L.	< D.L.	-6862.24	3.07	3.95	7011.92	233.96	350.94	0.16
Sena 44	Bernesga Mb.	457.41	3.05	20.83	< D.L.	10.03	-10005.67	3.03	3.90	7233.51	241.36	362.03	0.14
Sena 45	Bernesga Mb.	431.00	2.87	19.47	< D.L.	10.06	-12811.55	2.52	3.24	6871.26	229.27	343.90	0.14
Sena 46	Bernesga Mb.	456.86	3.05	19.15	< D.L.	9.83	25680.25	6.60	8.49	6602.57	220.30	330.45	0.13
Sena 47	Bernesga Mb.	461.16	3.07	19.17	< D.L.	< D.L.	22689.03	6.34	8.15	6698.33	223.50	335.25	0.12
Sena 48	Bernesga Mb.	413.70	2.76	19.88	< D.L.	9.23	-6097.80	3.04	3.91	7215.11	240.74	361.11	0.14
Sena 49	Bernesga Mb.	462.11	3.08	19.65	< D.L.	10.16	-109.63	4.07	5.23	7115.67	237.42	356.13	0.13
Sena 50	Bernesga Mb.	426.87	2.85	19.20	< D.L.	< D.L.	-12474.20	2.52	3.24	6994.90	233.39	350.09	0.13

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
Sena 26	Bernesga Mb.	-0.83	0.04	0.60	0.27	0.34	2.90	-0.46	19.44
Sena 27	Bernesga Mb.	-0.82	< D.L.	0.65	0.30	0.35	2.90	-0.46	19.17
Sena 28	Bernesga Mb.	-0.80	0.04	0.58	0.30	0.34	2.91	-0.46	18.28
Sena 29	Bernesga Mb.	-0.84	0.04	0.58	0.27	0.34	2.92	-0.47	20.18
Sena 30	Bernesga Mb.	-0.83	0.04	0.59	0.26	0.34	2.95	-0.47	20.06
Sena 31	Bernesga Mb.	-0.86	0.04	0.62	0.25	0.34	2.90	-0.46	21.16
Sena 32	Bernesga Mb.	-0.84	0.04	0.58	0.28	0.35	2.88	-0.46	19.72
Sena 33	Bernesga Mb.	-0.86	0.04	0.59	0.28	0.35	2.87	-0.46	20.63
Sena 34	Bernesga Mb.	-0.84	0.03	0.71	0.25	0.34	2.91	-0.46	20.17
Sena 35	Bernesga Mb.	-0.86	0.04	0.58	0.24	0.34	2.91	-0.46	21.03
Sena 36	Bernesga Mb.	-0.80	0.04	0.59	0.28	0.34	2.94	-0.47	18.49
Sena 37	Bernesga Mb.	-0.87	0.03	0.61	0.23	0.34	2.91	-0.46	21.41
Sena 38	Bernesga Mb.	-0.85	0.04	0.59	0.27	0.35	2.88	-0.46	20.46
Sena 39	Bernesga Mb.	-0.89	0.03	0.81	0.22	0.35	2.90	-0.46	22.73
Sena 40	Bernesga Mb.	-0.85	0.03	0.60	0.27	0.34	2.91	-0.46	20.41
Sena 41	Bernesga Mb.	-0.85	0.03	0.58	0.26	0.34	2.92	-0.47	20.82
Sena 42	Bernesga Mb.	-0.82	0.03	0.60	0.26	0.34	2.93	-0.47	19.54
Sena 43	Bernesga Mb.	-0.81	< D.L.	0.64	0.26	0.34	2.94	-0.47	18.86
Sena 44	Bernesga Mb.	-0.86	0.03	0.64	0.26	0.34	2.90	-0.46	21.25
Sena 45	Bernesga Mb.	-0.87	0.04	0.56	0.26	0.35	2.86	-0.46	21.13
Sena 46	Bernesga Mb.	-0.90	0.03	0.97	0.20	0.35	2.85	-0.46	22.70
Sena 47	Bernesga Mb.	-0.90	< D.L.	0.96	0.21	0.35	2.85	-0.46	22.89
Sena 48	Bernesga Mb.	-0.84	0.03	0.64	0.27	0.35	2.88	-0.46	19.95
Sena 49	Bernesga Mb.	-0.89	0.03	0.76	0.23	0.35	2.87	-0.46	22.50
Sena 50	Bernesga Mb.	-0.87	< D.L.	0.56	0.27	0.35	2.86	-0.46	21.16

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
Sena 26	Bernesga Mb.	1.44	5.62	4.97	1.88	0.27	0.53	0.14	40.78	0.00
Sena 27	Bernesga Mb.	1.42	5.53	4.47	1.98	0.30	0.50	0.16	39.11	0.00
Sena 28	Bernesga Mb.	1.46	5.70	4.77	2.00	0.30	0.50	0.14	41.07	0.00
Sena 29	Bernesga Mb.	1.47	5.77	4.89	1.86	0.27	0.54	0.13	41.74	0.01
Sena 30	Bernesga Mb.	1.53	6.04	5.04	1.82	0.26	0.55	0.13	39.88	0.00
Sena 31	Bernesga Mb.	1.43	5.57	5.26	1.78	0.25	0.56	0.14	40.62	0.00
Sena 32	Bernesga Mb.	1.39	5.41	4.77	1.90	0.28	0.53	0.14	42.84	0.01
Sena 33	Bernesga Mb.	1.37	5.28	4.92	1.89	0.28	0.53	0.14	42.80	0.01
Sena 34	Bernesga Mb.	1.45	5.65	6.14	1.80	0.25	0.56	0.18	38.55	0.00
Sena 35	Bernesga Mb.	1.45	5.67	4.92	1.75	0.24	0.57	0.13	41.36	0.01
Sena 36	Bernesga Mb.	1.51	5.93	4.86	1.88	0.28	0.53	0.14	39.88	0.00
Sena 37	Bernesga Mb.	1.46	5.71	5.06	1.70	0.23	0.59	0.13	41.22	0.01
Sena 38	Bernesga Mb.	1.39	5.37	4.88	1.87	0.27	0.53	0.14	42.26	0.01
Sena 39	Bernesga Mb.	1.42	5.53	7.57	1.65	0.22	0.61	0.20	37.89	0.00
Sena 40	Bernesga Mb.	1.44	5.63	4.90	1.88	0.27	0.53	0.13	40.97	0.00
Sena 41	Bernesga Mb.	1.48	5.80	4.86	1.80	0.26	0.56	0.12	40.85	0.00
Sena 42	Bernesga Mb.	1.50	5.88	4.93	1.81	0.26	0.55	0.13	40.88	0.00
Sena 43	Bernesga Mb.	1.51	5.93	4.39	1.83	0.26	0.55	0.15	40.82	0.00
Sena 44	Bernesga Mb.	1.43	5.60	5.34	1.80	0.26	0.55	0.14	40.77	0.00
Sena 45	Bernesga Mb.	1.36	5.25	4.61	1.84	0.26	0.54	0.13	45.94	0.01
Sena 46	Bernesga Mb.	1.34	5.17	10.42	1.59	0.20	0.63	0.31	37.18	0.00
Sena 47	Bernesga Mb.	1.34	5.18	9.06	1.60	0.21	0.62	0.29	36.71	0.00
Sena 48	Bernesga Mb.	1.38	5.36	5.27	1.86	0.27	0.54	0.16	41.80	0.01
Sena 49	Bernesga Mb.	1.37	5.30	6.83	1.70	0.23	0.59	0.19	40.77	0.00
Sena 50	Bernesga Mb.	1.34	5.19	3.60	1.87	0.27	0.54	0.13	45.43	0.01

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Zr/Sc	Cr/Th	Th/Sc
Sena 26	Bernesga Mb.	23.78	0.05	315.60	< D.L.	213.68	0.28	0.79	1.64	< D.L.	15.85	6.94	8.15	6.48	1.18
Sena 27	Bernesga Mb.	23.09	0.05	320.56	< D.L.	193.40	0.24	0.81	1.66	< D.L.	< D.L.	5.74	< D.L.	7.56	< D.L.
Sena 28	Bernesga Mb.	22.24	0.05	313.11	< D.L.	201.85	0.23	0.77	1.66	71.51	15.65	7.25	8.35	6.20	1.17
Sena 29	Bernesga Mb.	25.97	0.05	296.60	< D.L.	191.06	0.24	0.76	1.29	< D.L.	< D.L.	7.74	< D.L.	5.85	< D.L.
Sena 30	Bernesga Mb.	25.96	0.05	319.62	< D.L.	188.93	0.24	0.76	1.18	< D.L.	< D.L.	6.90	< D.L.	6.62	< D.L.
Sena 31	Bernesga Mb.	24.87	0.05	320.95	< D.L.	226.22	0.22	0.91	1.99	66.56	19.72	7.06	8.75	7.20	1.24
Sena 32	Bernesga Mb.	22.73	0.05	298.54	< D.L.	188.01	0.20	0.76	1.71	82.72	< D.L.	7.40	< D.L.	5.86	< D.L.
Sena 33	Bernesga Mb.	23.92	0.05	278.21	< D.L.	213.84	0.16	0.88	2.55	< D.L.	< D.L.	6.98	< D.L.	7.03	< D.L.
Sena 34	Bernesga Mb.	27.41	0.05	322.77	< D.L.	203.85	0.35	0.74	1.47	< D.L.	< D.L.	4.58	< D.L.	8.76	< D.L.
Sena 35	Bernesga Mb.	26.89	0.05	314.71	< D.L.	175.64	0.23	0.74	1.14	< D.L.	< D.L.	6.36	< D.L.	6.76	< D.L.
Sena 36	Bernesga Mb.	23.61	0.05	320.62	< D.L.	185.22	0.19	0.76	1.56	55.43	< D.L.	6.49	< D.L.	6.86	< D.L.
Sena 37	Bernesga Mb.	26.15	0.06	329.70	< D.L.	194.54	0.18	0.80	1.79	< D.L.	15.64	6.09	6.39	7.62	0.91
Sena 38	Bernesga Mb.	24.27	0.05	329.26	< D.L.	208.29	0.24	0.84	1.62	< D.L.	16.39	6.33	8.66	7.48	1.14
Sena 39	Bernesga Mb.	29.04	0.06	344.37	< D.L.	223.63	0.45	0.73	1.58	< D.L.	< D.L.	3.42	< D.L.	11.05	< D.L.
Sena 40	Bernesga Mb.	24.83	0.05	307.67	< D.L.	182.45	0.20	0.76	1.53	< D.L.	14.40	7.09	8.15	6.12	1.17
Sena 41	Bernesga Mb.	25.43	0.05	323.30	< D.L.	180.80	0.19	0.76	1.40	< D.L.	12.27	6.72	7.34	6.65	1.00
Sena 42	Bernesga Mb.	24.72	0.06	338.85	< D.L.	178.91	0.21	0.74	1.21	< D.L.	< D.L.	6.17	< D.L.	7.17	< D.L.
Sena 43	Bernesga Mb.	24.28	0.06	334.26	< D.L.	175.88	0.23	0.71	1.14	< D.L.	< D.L.	5.45	< D.L.	7.83	< D.L.
Sena 44	Bernesga Mb.	25.27	0.06	336.27	< D.L.	176.71	0.23	0.75	1.25	< D.L.	< D.L.	5.48	< D.L.	7.80	< D.L.
Sena 45	Bernesga Mb.	25.07	0.05	327.55	< D.L.	188.33	0.24	0.76	1.22	< D.L.	10.47	6.74	6.80	6.75	0.97
Sena 46	Bernesga Mb.	27.65	0.06	351.62	1.07	218.30	0.55	0.71	1.48	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Sena 47	Bernesga Mb.	27.51	0.06	342.75	1.50	208.89	0.64	0.69	1.25	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Sena 48	Bernesga Mb.	22.91	0.06	346.01	< D.L.	191.22	0.21	0.84	1.45	< D.L.	< D.L.	6.11	< D.L.	7.64	< D.L.
Sena 49	Bernesga Mb.	25.95	0.06	335.32	< D.L.	174.73	0.25	0.74	1.42	< D.L.	9.62	3.57	5.55	11.02	0.45
Sena 50	Bernesga Mb.	24.39	0.05	324.79	< D.L.	183.48	0.23	0.79	1.13	< D.L.	13.23	6.53	9.02	7.04	1.31

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
Sena 26	Bernesga Mb.	0.85	1.18	0.02	6.45	1.07	2.07	1.19	0.48	2.08
Sena 27	Bernesga Mb.	1.02	0.98	0.02	7.41	1.26	2.16	< D.L.	0.49	2.05
Sena 28	Bernesga Mb.	0.89	1.13	0.02	6.74	1.15	1.82	< D.L.	0.47	2.15
Sena 29	Bernesga Mb.	0.83	1.20	0.02	6.47	1.10	1.87	< D.L.	0.59	1.71
Sena 30	Bernesga Mb.	0.82	1.23	0.02	6.62	1.07	2.21	< D.L.	0.64	1.56
Sena 31	Bernesga Mb.	0.88	1.13	0.02	6.56	0.98	2.10	< D.L.	0.45	2.20
Sena 32	Bernesga Mb.	0.89	1.12	0.02	6.31	1.18	1.96	< D.L.	0.44	2.26
Sena 33	Bernesga Mb.	1.00	1.00	0.02	6.62	1.14	1.81	< D.L.	0.34	2.91
Sena 34	Bernesga Mb.	0.87	1.15	0.02	7.12	1.17	2.58	< D.L.	0.50	1.98
Sena 35	Bernesga Mb.	0.80	1.25	0.02	6.47	1.08	1.85	< D.L.	0.65	1.55
Sena 36	Bernesga Mb.	0.82	1.22	0.02	6.55	1.08	1.88	< D.L.	0.49	2.05
Sena 37	Bernesga Mb.	0.73	1.37	0.02	5.91	0.92	1.90	< D.L.	0.44	2.25
Sena 38	Bernesga Mb.	0.85	1.17	0.02	6.77	1.01	1.55	< D.L.	0.52	1.91
Sena 39	Bernesga Mb.	0.85	1.18	0.02	6.83	1.17	3.95	0.74	0.46	2.16
Sena 40	Bernesga Mb.	0.87	1.16	0.02	6.43	1.14	1.90	< D.L.	0.50	2.02
Sena 41	Bernesga Mb.	0.84	1.20	0.02	6.58	1.10	1.73	< D.L.	0.54	1.84
Sena 42	Bernesga Mb.	0.74	1.34	0.02	6.38	1.01	2.00	< D.L.	0.61	1.64
Sena 43	Bernesga Mb.	0.73	1.38	0.02	6.25	1.02	2.15	< D.L.	0.62	1.61
Sena 44	Bernesga Mb.	0.92	1.08	0.02	7.29	1.22	1.57	< D.L.	0.60	1.65
Sena 45	Bernesga Mb.	0.79	1.26	0.02	6.75	1.04	1.31	< D.L.	0.63	1.60
Sena 46	Bernesga Mb.	0.82	1.22	0.02	6.23	1.15	4.59	< D.L.	0.48	2.08
Sena 47	Bernesga Mb.	0.87	1.14	0.02	6.29	1.27	4.40	< D.L.	0.55	1.82
Sena 48	Bernesga Mb.	0.83	1.20	0.02	6.65	0.99	1.94	< D.L.	0.58	1.72
Sena 49	Bernesga Mb.	0.82	1.22	0.02	6.17	1.11	2.51	< D.L.	0.52	1.92
Sena 50	Bernesga Mb.	0.77	1.29	0.02	6.26	0.98	1.31	< D.L.	0.70	1.43

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
Sena 26	Bernesga Mb.	0.80	0.61	18.93	< D.L.	3.64	2.49	5.33	9.11
Sena 27	Bernesga Mb.	2.02	0.58	18.49	< D.L.	2.74	2.49	4.39	9.03
Sena 28	Bernesga Mb.	0.93	0.54	20.55	< D.L.	5.19	1.23	4.75	9.57
Sena 29	Bernesga Mb.	0.74	0.52	14.78	< D.L.	2.75	1.36	3.51	8.65
Sena 30	Bernesga Mb.	0.97	0.52	13.12	< D.L.	3.75	1.37	3.20	8.43
Sena 31	Bernesga Mb.	0.98	0.58	20.98	< D.L.	3.59	2.62	4.61	9.53
Sena 32	Bernesga Mb.	0.77	0.74	20.18	< D.L.	4.35	1.58	3.97	8.95
Sena 33	Bernesga Mb.	0.70	0.94	28.67	< D.L.	4.77	2.00	4.47	9.86
Sena 34	Bernesga Mb.	1.23	0.68	15.43	< D.L.	< D.L.	1.44	5.42	7.79
Sena 35	Bernesga Mb.	0.60	0.79	12.37	< D.L.	2.92	1.12	2.89	7.99
Sena 36	Bernesga Mb.	0.72	0.87	18.63	< D.L.	3.50	1.43	3.50	9.08
Sena 37	Bernesga Mb.	1.46	0.83	18.99	< D.L.	1.91	1.25	3.34	8.43
Sena 38	Bernesga Mb.	0.78	0.79	18.14	< D.L.	2.74	0.92	4.41	9.48
Sena 39	Bernesga Mb.	1.43	0.61	14.37	< D.L.	4.28	2.73	6.46	6.64
Sena 40	Bernesga Mb.	0.78	0.96	16.85	< D.L.	4.28	1.93	3.37	8.35
Sena 41	Bernesga Mb.	0.62	0.85	15.15	< D.L.	< D.L.	1.86	2.87	8.23
Sena 42	Bernesga Mb.	0.49	0.93	14.02	< D.L.	< D.L.	1.41	3.00	8.57
Sena 43	Bernesga Mb.	0.89	0.97	13.69	< D.L.	< D.L.	1.95	3.18	8.52
Sena 44	Bernesga Mb.	1.05	0.97	13.13	< D.L.	< D.L.	2.99	3.01	7.94
Sena 45	Bernesga Mb.	0.38	1.00	14.33	< D.L.	< D.L.	0.95	3.41	8.97
Sena 46	Bernesga Mb.	2.29	0.64	13.10	2.74	< D.L.	2.94	7.25	6.29
Sena 47	Bernesga Mb.	2.00	< D.L.	10.82	2.26	< D.L.	3.39	6.88	5.96
Sena 48	Bernesga Mb.	1.13	0.85	16.52	< D.L.	2.91	2.45	3.51	9.59
Sena 49	Bernesga Mb.	1.32	0.56	13.93	< D.L.	< D.L.	1.93	3.47	7.25
Sena 50	Bernesga Mb.	0.44	0.74	13.12	< D.L.	1.94	0.75	3.02	9.16

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
Sena 26	Bernesga Mb.	< D.L.	13.80	29.24	23.83	9.74	0.78	19.98	< D.L.
Sena 27	Bernesga Mb.	< D.L.	14.47	30.73	24.06	11.33	0.81	21.00	< D.L.
Sena 28	Bernesga Mb.	0.29	14.85	30.81	22.54	10.97	0.81	21.05	0.15
Sena 29	Bernesga Mb.	< D.L.	13.75	27.57	21.33	9.51	0.81	18.84	< D.L.
Sena 30	Bernesga Mb.	< D.L.	13.12	26.76	24.48	9.04	0.80	18.29	< D.L.
Sena 31	Bernesga Mb.	0.32	13.23	27.28	22.12	9.30	0.82	18.64	0.17
Sena 32	Bernesga Mb.	0.24	14.38	30.10	23.16	10.54	0.84	20.57	0.13
Sena 33	Bernesga Mb.	< D.L.	13.80	29.12	20.34	11.27	0.87	19.90	< D.L.
Sena 34	Bernesga Mb.	< D.L.	12.64	28.41	27.07	9.11	0.74	19.42	< D.L.
Sena 35	Bernesga Mb.	< D.L.	12.01	26.97	20.00	8.66	0.81	18.43	< D.L.
Sena 36	Bernesga Mb.	0.34	13.33	29.58	22.47	9.80	0.84	20.22	0.18
Sena 37	Bernesga Mb.	< D.L.	11.77	26.26	20.18	7.76	0.85	17.94	< D.L.
Sena 38	Bernesga Mb.	< D.L.	12.99	28.97	17.36	9.59	0.80	19.80	< D.L.
Sena 39	Bernesga Mb.	< D.L.	11.28	129.38	36.06	7.74	0.69	88.42	< D.L.
Sena 40	Bernesga Mb.	< D.L.	12.53	28.11	20.94	9.53	0.83	19.21	< D.L.
Sena 41	Bernesga Mb.	< D.L.	12.19	27.48	18.72	9.06	0.84	18.78	< D.L.
Sena 42	Bernesga Mb.	< D.L.	12.65	27.94	23.21	8.62	0.82	19.09	< D.L.
Sena 43	Bernesga Mb.	< D.L.	13.03	29.04	25.85	8.72	0.81	19.84	< D.L.
Sena 44	Bernesga Mb.	< D.L.	12.09	27.29	16.56	9.72	0.81	18.65	< D.L.
Sena 45	Bernesga Mb.	< D.L.	12.67	28.38	15.42	9.31	0.81	19.39	< D.L.
Sena 46	Bernesga Mb.	< D.L.	11.69	50.68	40.56	7.26	0.64	34.64	< D.L.
Sena 47	Bernesga Mb.	< D.L.	11.48	52.20	38.08	7.56	0.61	35.67	< D.L.
Sena 48	Bernesga Mb.	< D.L.	12.93	29.76	22.03	9.50	0.82	20.34	< D.L.
Sena 49	Bernesga Mb.	< D.L.	11.54	26.97	24.65	8.03	0.80	18.43	< D.L.
Sena 50	Bernesga Mb.	< D.L.	12.62	28.51	15.14	8.95	0.81	19.48	< D.L.

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
Sena 26	Bernesga Mb.	2.30	0.44	1.54	15.89	0.17	0.95	-0.02	1.19	0.01	< D.L.	< D.L.
Sena 27	Bernesga Mb.	2.06	0.49	1.55	19.56	0.21	1.09	0.04	2.91	0.01	0.04	0.42
Sena 28	Bernesga Mb.	2.88	0.35	1.57	20.48	0.10	0.90	-0.05	1.31	0.01	0.03	0.28
Sena 29	Bernesga Mb.	2.84	0.35	1.52	18.27	0.19	0.88	-0.05	1.17	0.01	0.03	0.31
Sena 30	Bernesga Mb.	2.45	0.41	1.53	17.37	0.14	0.86	-0.07	1.57	0.01	< D.L.	< D.L.
Sena 31	Bernesga Mb.	2.29	0.44	1.50	16.07	0.16	1.00	0.00	1.57	0.02	0.03	0.30
Sena 32	Bernesga Mb.	2.05	0.49	1.56	14.16	0.17	0.95	-0.02	1.12	0.01	< D.L.	< D.L.
Sena 33	Bernesga Mb.	1.49	0.67	1.63	11.96	0.20	1.00	0.00	1.05	0.01	< D.L.	< D.L.
Sena 34	Bernesga Mb.	1.30	0.77	1.55	13.31	< D.L.	1.22	0.09	1.89	0.01	< D.L.	< D.L.
Sena 35	Bernesga Mb.	1.49	0.67	1.62	10.93	0.27	0.91	-0.04	0.96	0.01	< D.L.	< D.L.
Sena 36	Bernesga Mb.	1.51	0.66	1.63	11.21	0.25	0.87	-0.06	1.07	0.01	< D.L.	< D.L.
Sena 37	Bernesga Mb.	1.34	0.75	1.56	9.40	0.43	0.95	-0.02	2.41	0.01	< D.L.	< D.L.
Sena 38	Bernesga Mb.	1.60	0.63	1.60	12.07	0.29	0.97	-0.01	1.17	0.01	< D.L.	< D.L.
Sena 39	Bernesga Mb.	0.99	1.01	1.50	12.77	0.14	1.58	0.20	2.43	0.01	< D.L.	< D.L.
Sena 40	Bernesga Mb.	1.42	0.71	1.64	9.90	0.23	0.94	-0.03	1.21	0.01	< D.L.	< D.L.
Sena 41	Bernesga Mb.	1.45	0.69	1.63	10.62	< D.L.	0.89	-0.05	1.02	0.01	< D.L.	< D.L.
Sena 42	Bernesga Mb.	1.28	0.78	1.60	9.25	< D.L.	0.90	-0.05	0.76	0.01	< D.L.	< D.L.
Sena 43	Bernesga Mb.	1.13	0.89	1.59	9.04	< D.L.	0.99	0.00	1.33	0.01	< D.L.	< D.L.
Sena 44	Bernesga Mb.	1.05	0.95	1.67	10.01	< D.L.	1.04	0.02	1.70	0.01	< D.L.	< D.L.
Sena 45	Bernesga Mb.	1.33	0.75	1.66	9.31	< D.L.	0.93	-0.03	0.58	0.01	< D.L.	< D.L.
Sena 46	Bernesga Mb.	< D.L.	< D.L.	1.38	11.29	< D.L.	2.46	0.39	3.69	0.01	< D.L.	< D.L.
Sena 47	Bernesga Mb.	< D.L.	< D.L.	1.41	< D.L.	< D.L.	2.36	0.37	3.25	0.01	< D.L.	< D.L.
Sena 48	Bernesga Mb.	1.48	0.68	1.62	11.20	0.29	1.09	0.04	1.65	0.01	< D.L.	< D.L.
Sena 49	Bernesga Mb.	1.16	0.86	1.55	14.24	< D.L.	1.48	0.17	2.15	0.01	< D.L.	< D.L.
Sena 50	Bernesga Mb.	1.76	0.57	1.63	12.14	0.38	0.94	-0.03	0.67	0.01	< D.L.	< D.L.

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
Sena 26	Bernesga Mb.	< D.L.	< D.L.	< D.L.	2.12	7.18	14.41	393415.82	1821.30	-23.81
Sena 27	Bernesga Mb.	846.83	0.06	0.08	2.61	7.20	16.33	396256.90	991.80	-21.89
Sena 28	Bernesga Mb.	556.60	0.04	0.06	0.30	7.31	15.46	389565.75	842.67	-22.61
Sena 29	Bernesga Mb.	619.72	0.05	0.06	0.44	6.99	14.94	415033.89	765.70	-26.20
Sena 30	Bernesga Mb.	< D.L.	< D.L.	< D.L.	1.55	7.22	14.68	423072.16	742.47	-27.19
Sena 31	Bernesga Mb.	606.54	0.05	0.06	2.20	7.44	14.89	411982.07	1156.60	-26.09
Sena 32	Bernesga Mb.	< D.L.	< D.L.	< D.L.	3.43	7.38	15.33	389594.76	808.23	-23.62
Sena 33	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.07	7.21	16.81	397923.48	966.37	-24.20
Sena 34	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.99	6.50	14.07	399447.26	1057.73	-22.72
Sena 35	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.44	6.93	13.98	411151.40	647.93	-27.02
Sena 36	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.38	7.20	14.43	392421.79	725.80	-23.89
Sena 37	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.55	7.30	12.83	413483.48	758.03	-27.43
Sena 38	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.58	7.14	14.38	398095.55	798.80	-24.47
Sena 39	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.93	6.77	13.21	419629.81	3052.50	-23.35
Sena 40	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.91	7.23	14.84	414020.55	824.97	-25.57
Sena 41	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.18	7.39	14.76	421863.02	770.37	-27.35
Sena 42	Bernesga Mb.	< D.L.	< D.L.	< D.L.	8.25	7.22	13.34	401735.40	681.50	-25.35
Sena 43	Bernesga Mb.	< D.L.	< D.L.	< D.L.	9.06	7.14	13.11	393451.40	772.30	-23.42
Sena 44	Bernesga Mb.	< D.L.	< D.L.	< D.L.	10.19	7.36	15.69	418295.30	967.10	-25.96
Sena 45	Bernesga Mb.	< D.L.	< D.L.	< D.L.	8.45	7.01	14.15	399085.78	662.63	-25.49
Sena 46	Bernesga Mb.	< D.L.	< D.L.	< D.L.	10.37	6.70	11.70	387205.08	1643.50	-15.01
Sena 47	Bernesga Mb.	< D.L.	< D.L.	< D.L.	< D.L.	6.80	12.30	393153.07	1670.90	-16.14
Sena 48	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.28	7.36	13.87	385366.76	870.90	-22.57
Sena 49	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.63	7.23	13.10	408039.17	879.93	-23.16
Sena 50	Bernesga Mb.	< D.L.	< D.L.	< D.L.	4.57	7.13	13.47	399028.21	568.83	-25.18

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
Sena 26	Bernesga Mb.	-11.13	15.10	-3.02	0.79	94.30	95.11
Sena 27	Bernesga Mb.	-10.23	14.70	-2.33	0.81	94.21	95.04
Sena 28	Bernesga Mb.	-10.57	14.38	-2.85	0.79	93.89	94.81
Sena 29	Bernesga Mb.	-12.24	16.03	-3.63	0.77	94.52	95.28
Sena 30	Bernesga Mb.	-12.71	16.57	-3.81	0.77	94.48	95.25
Sena 31	Bernesga Mb.	-12.19	16.33	-3.42	0.78	94.81	95.49
Sena 32	Bernesga Mb.	-11.04	14.85	-3.06	0.78	94.39	95.17
Sena 33	Bernesga Mb.	-11.31	15.22	-3.13	0.78	94.67	95.38
Sena 34	Bernesga Mb.	-10.62	15.75	-2.16	0.83	94.52	95.28
Sena 35	Bernesga Mb.	-12.63	16.47	-3.78	0.77	94.77	95.46
Sena 36	Bernesga Mb.	-11.17	15.03	-3.09	0.78	93.96	94.87
Sena 37	Bernesga Mb.	-12.82	16.86	-3.76	0.77	94.87	95.54
Sena 38	Bernesga Mb.	-11.43	15.30	-3.22	0.78	94.62	95.34
Sena 39	Bernesga Mb.	-10.91	17.41	-1.56	0.87	95.20	95.79
Sena 40	Bernesga Mb.	-11.95	15.89	-3.42	0.78	94.60	95.33
Sena 41	Bernesga Mb.	-12.78	16.62	-3.86	0.77	94.71	95.42
Sena 42	Bernesga Mb.	-11.85	15.79	-3.37	0.78	94.32	95.13
Sena 43	Bernesga Mb.	-10.95	15.34	-2.71	0.80	94.09	94.97
Sena 44	Bernesga Mb.	-12.13	16.47	-3.29	0.79	94.83	95.51
Sena 45	Bernesga Mb.	-11.91	15.52	-3.58	0.77	94.81	95.48
Sena 46	Bernesga Mb.	-7.01	16.45	1.82	1.35	95.20	95.78
Sena 47	Bernesga Mb.	-7.54	16.60	1.37	1.22	95.25	95.81
Sena 48	Bernesga Mb.	-10.55	14.89	-2.55	0.81	94.47	95.23
Sena 49	Bernesga Mb.	-10.82	16.64	-1.89	0.85	95.15	95.74
Sena 50	Bernesga Mb.	-11.77	15.37	-3.51	0.77	94.82	95.49

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
Sena 26	Bernesga Mb.	83.27	2.96	0.07	2.99
Sena 27	Bernesga Mb.	83.11	4.45	0.93	4.48
Sena 28	Bernesga Mb.	82.36	1.98	0.17	2.01
Sena 29	Bernesga Mb.	83.73	3.62	0.28	3.65
Sena 30	Bernesga Mb.	83.56	3.90	0.60	3.93
Sena 31	Bernesga Mb.	84.44	4.23	0.00	4.26
Sena 32	Bernesga Mb.	83.55	2.71	-0.12	2.75
Sena 33	Bernesga Mb.	84.21	3.31	-0.32	3.34
Sena 34	Bernesga Mb.	83.76	4.73	-0.15	4.76
Sena 35	Bernesga Mb.	84.32	4.31	0.24	4.34
Sena 36	Bernesga Mb.	82.45	2.53	0.46	2.56
Sena 37	Bernesga Mb.	84.54	4.86	0.38	4.89
Sena 38	Bernesga Mb.	84.06	3.31	-0.20	3.34
Sena 39	Bernesga Mb.	85.37	7.57	-0.48	7.60
Sena 40	Bernesga Mb.	83.94	3.84	0.24	3.87
Sena 41	Bernesga Mb.	84.14	4.30	0.50	4.33
Sena 42	Bernesga Mb.	83.25	3.48	0.50	3.51
Sena 43	Bernesga Mb.	82.74	4.79	1.51	4.82
Sena 44	Bernesga Mb.	84.48	4.72	0.14	4.75
Sena 45	Bernesga Mb.	84.54	3.49	-0.25	3.52
Sena 46	Bernesga Mb.	85.49	9.15	-1.68	9.18
Sena 47	Bernesga Mb.	85.59	10.48	-0.43	10.51
Sena 48	Bernesga Mb.	83.73	3.29	-0.27	3.32
Sena 49	Bernesga Mb.	85.32	6.30	-0.59	6.33
Sena 50	Bernesga Mb.	84.59	4.85	0.81	4.88

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
Sena 26	Bernesga Mb.	1.57	4.79	-42.00	0.87
Sena 27	Bernesga Mb.	2.41	4.53	-43.96	0.86
Sena 28	Bernesga Mb.	1.69	4.75	-41.38	0.87
Sena 29	Bernesga Mb.	1.81	4.77	-43.85	0.89
Sena 30	Bernesga Mb.	2.19	4.75	-45.05	0.89
Sena 31	Bernesga Mb.	1.49	4.71	-43.85	0.88
Sena 32	Bernesga Mb.	1.34	4.75	-40.97	0.88
Sena 33	Bernesga Mb.	1.11	4.72	-41.80	0.88
Sena 34	Bernesga Mb.	1.36	4.83	-45.20	0.85
Sena 35	Bernesga Mb.	1.75	4.84	-43.56	0.89
Sena 36	Bernesga Mb.	2.03	4.84	-42.13	0.88
Sena 37	Bernesga Mb.	1.90	4.78	-44.19	0.88
Sena 38	Bernesga Mb.	1.25	4.76	-41.88	0.88
Sena 39	Bernesga Mb.	1.00	3.95	-48.94	0.83
Sena 40	Bernesga Mb.	1.74	4.67	-43.89	0.88
Sena 41	Bernesga Mb.	2.05	4.69	-44.60	0.89
Sena 42	Bernesga Mb.	2.06	4.82	-43.14	0.88
Sena 43	Bernesga Mb.	3.08	4.69	-44.21	0.86
Sena 44	Bernesga Mb.	1.64	4.64	-45.00	0.87
Sena 45	Bernesga Mb.	1.17	4.80	-41.33	0.89
Sena 46	Bernesga Mb.	-0.28	4.42	-51.86	0.76
Sena 47	Bernesga Mb.	0.97	4.25	-52.49	0.77
Sena 48	Bernesga Mb.	1.17	4.75	-41.63	0.86
Sena 49	Bernesga Mb.	0.83	4.62	-46.63	0.84
Sena 50	Bernesga Mb.	2.21	4.61	-42.05	0.89

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
Sena 26	Bernesga Mb.	3.38	0.42	4.00	4.00	1.00	< D.L.	9.00
Sena 27	Bernesga Mb.	3.79	0.41	4.00	4.00	1.00	< D.L.	9.00
Sena 28	Bernesga Mb.	3.18	0.44	4.00	4.00	4.00	< D.L.	12.00
Sena 29	Bernesga Mb.	3.31	0.40	4.00	4.00	1.00	< D.L.	9.00
Sena 30	Bernesga Mb.	3.27	0.40	4.00	4.00	1.00	< D.L.	9.00
Sena 31	Bernesga Mb.	3.40	0.40	4.00	4.00	4.00	< D.L.	12.00
Sena 32	Bernesga Mb.	3.15	0.42	4.00	4.00	4.00	< D.L.	12.00
Sena 33	Bernesga Mb.	3.32	0.41	4.00	4.00	1.00	< D.L.	9.00
Sena 34	Bernesga Mb.	4.83	0.44	4.00	4.00	1.00	< D.L.	9.00
Sena 35	Bernesga Mb.	3.39	0.39	4.00	4.00	1.00	< D.L.	9.00
Sena 36	Bernesga Mb.	3.28	0.43	4.00	4.00	4.00	< D.L.	12.00
Sena 37	Bernesga Mb.	3.39	0.38	4.00	4.00	1.00	< D.L.	9.00
Sena 38	Bernesga Mb.	3.31	0.40	4.00	4.00	1.00	< D.L.	9.00
Sena 39	Bernesga Mb.	5.86	0.45	4.00	4.00	1.00	< D.L.	9.00
Sena 40	Bernesga Mb.	3.32	0.40	4.00	4.00	1.00	< D.L.	9.00
Sena 41	Bernesga Mb.	3.17	0.39	4.00	4.00	1.00	< D.L.	9.00
Sena 42	Bernesga Mb.	3.33	0.41	4.00	4.00	1.00	< D.L.	9.00
Sena 43	Bernesga Mb.	3.75	0.41	4.00	4.00	1.00	< D.L.	9.00
Sena 44	Bernesga Mb.	3.59	0.40	4.00	4.00	1.00	< D.L.	9.00
Sena 45	Bernesga Mb.	3.14	0.39	4.00	4.00	1.00	< D.L.	9.00
Sena 46	Bernesga Mb.	8.56	0.55	4.00	4.00	1.00	< D.L.	9.00
Sena 47	Bernesga Mb.	8.11	0.50	1.00	< D.L.	1.00	< D.L.	< D.L.
Sena 48	Bernesga Mb.	3.61	0.43	4.00	4.00	1.00	< D.L.	9.00
Sena 49	Bernesga Mb.	4.90	0.43	4.00	4.00	1.00	< D.L.	9.00
Sena 50	Bernesga Mb.	3.08	0.35	4.00	4.00	1.00	< D.L.	9.00

4.3 Sena 51 - 75

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
Sena 51	Bernesga Mb.	77.45	55.25	39.76	172.46	95.01
Sena 52	Bernesga Mb.	73.37	48.22	40.13	161.72	88.35
Sena 53	Bernesga Mb.	84.81	48.41	38.85	172.07	87.26
Sena 54	Bernesga Mb.	72.50	48.16	41.41	162.06	89.57
Sena 55	Bernesga Mb.	82.62	51.65	41.51	175.78	93.15
Sena 56	Bernesga Mb.	81.40	43.87	41.22	166.48	85.09
Sena 57	Bernesga Mb.	84.41	44.39	42.68	171.47	87.07
Sena 58	Bernesga Mb.	75.36	< D.L.	38.57	113.93	38.57
Sena 59	Bernesga Mb.	90.29	46.12	42.95	179.36	89.07
Sena 60	Bernesga Mb.	89.22	50.15	42.01	181.38	92.15
Sena 61	Bernesga Mb.	59.94	20.29	40.17	120.41	60.46
Sena 62	Bernesga Mb.	66.30	23.31	41.01	130.62	64.32
Sena 63	Bernesga Mb.	69.94	17.02	40.80	127.76	57.82
Sena 64	Bernesga Mb.	93.21	54.49	41.44	189.15	95.94
Sena 65	Bernesga Mb.	80.97	33.30	41.98	156.25	75.28
Sena 66	Bernesga Mb.	84.85	44.21	42.65	171.72	86.86
Sena 67	Bernesga Mb.	68.48	18.92	39.95	127.35	58.87
Sena 68	Bernesga Mb.	69.73	47.02	40.98	157.73	88.00
Sena 69	Bernesga Mb.	76.87	42.49	40.53	159.88	83.01
Sena 70	Bernesga Mb.	69.91	27.61	40.65	138.17	68.26
Sena 71	Bernesga Mb.	97.23	39.96	41.76	178.95	81.72
Sena 72	Bernesga Mb.	85.99	41.38	43.14	170.50	84.51
Sena 73	Bernesga Mb.	76.58	46.50	40.89	163.97	87.39
Sena 74	Bernesga Mb.	83.98	40.96	41.25	166.19	82.21
Sena 75	Bernesga Mb.	< D.L.	12.42	42.64	55.06	55.06

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
Sena 51	Bernesga Mb.	92.61	87.00	59.80	239.41	146.80
Sena 52	Bernesga Mb.	87.73	75.93	60.35	224.01	136.28
Sena 53	Bernesga Mb.	101.41	76.24	58.42	236.08	134.66
Sena 54	Bernesga Mb.	86.69	75.84	62.27	224.80	138.11
Sena 55	Bernesga Mb.	98.80	81.33	62.42	242.55	143.75
Sena 56	Bernesga Mb.	97.33	69.08	61.98	228.40	131.06
Sena 57	Bernesga Mb.	100.93	69.91	64.18	235.02	134.08
Sena 58	Bernesga Mb.	90.12	< D.L.	58.00	148.12	58.00
Sena 59	Bernesga Mb.	107.97	72.63	64.59	245.19	137.22
Sena 60	Bernesga Mb.	106.69	78.97	63.17	248.83	142.14
Sena 61	Bernesga Mb.	71.68	31.96	60.40	164.04	92.36
Sena 62	Bernesga Mb.	79.28	36.71	61.67	177.66	98.38
Sena 63	Bernesga Mb.	83.64	26.80	61.35	171.79	88.15
Sena 64	Bernesga Mb.	111.47	85.81	62.32	259.60	148.14
Sena 65	Bernesga Mb.	96.83	52.44	63.13	212.39	115.57
Sena 66	Bernesga Mb.	101.47	69.63	64.14	235.23	133.76
Sena 67	Bernesga Mb.	81.89	29.80	60.07	171.77	89.87
Sena 68	Bernesga Mb.	83.39	74.05	61.62	219.06	135.68
Sena 69	Bernesga Mb.	91.92	66.91	60.94	219.77	127.85
Sena 70	Bernesga Mb.	83.60	43.48	61.13	188.21	104.61
Sena 71	Bernesga Mb.	116.27	62.93	62.79	241.99	125.72
Sena 72	Bernesga Mb.	102.83	65.16	64.87	232.85	130.03
Sena 73	Bernesga Mb.	91.57	73.23	61.49	226.29	134.72
Sena 74	Bernesga Mb.	100.43	64.51	62.03	226.97	126.54
Sena 75	Bernesga Mb.	< D.L.	19.56	64.12	83.68	83.68

Sample	Formation	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al2O3*5	10Al2O3
Sena 51	Bernesga Mb.	115.77	231.53	4.33	4.02	5.39	33.90	4.44	144.22	288.44
Sena 52	Bernesga Mb.	109.67	219.33	4.64	3.81	5.10	33.50	4.06	142.00	283.99
Sena 53	Bernesga Mb.	126.77	253.53	6.32	4.38	5.87	34.77	4.49	149.12	298.24
Sena 54	Bernesga Mb.	108.37	216.73	4.52	3.76	5.04	35.91	4.63	153.28	306.56
Sena 55	Bernesga Mb.	123.50	247.00	5.57	4.28	5.73	35.90	4.51	153.17	306.34
Sena 56	Bernesga Mb.	121.67	243.33	6.41	4.22	5.65	34.78	5.36	147.77	295.54
Sena 57	Bernesga Mb.	126.17	252.33	6.79	4.36	5.84	34.78	4.93	146.88	293.76
Sena 58	Bernesga Mb.	112.65	225.30	11.27	3.91	5.24	38.30	12.23	166.97	333.94
Sena 59	Bernesga Mb.	134.97	269.93	7.44	4.63	6.20	35.62	5.05	150.94	301.87
Sena 60	Bernesga Mb.	133.37	266.73	6.76	4.58	6.14	34.97	4.44	148.22	296.44
Sena 61	Bernesga Mb.	89.60	179.20	6.30	3.00	4.03	36.71	8.83	158.05	316.10
Sena 62	Bernesga Mb.	99.10	198.20	6.85	3.40	4.56	35.93	7.47	153.64	307.28
Sena 63	Bernesga Mb.	104.55	209.10	8.22	3.62	4.85	37.40	8.65	161.11	322.22
Sena 64	Bernesga Mb.	139.33	278.67	6.78	4.75	6.37	33.20	4.42	139.72	279.44
Sena 65	Bernesga Mb.	121.03	242.07	7.73	4.20	5.62	34.26	4.93	144.68	289.36
Sena 66	Bernesga Mb.	126.83	253.67	6.88	4.38	5.87	36.52	5.00	155.61	311.23
Sena 67	Bernesga Mb.	102.37	204.73	7.75	3.53	4.73	34.12	7.03	145.20	290.41
Sena 68	Bernesga Mb.	104.23	208.47	4.25	3.60	4.83	34.09	5.83	144.48	288.95
Sena 69	Bernesga Mb.	114.90	229.80	5.91	3.99	5.35	34.10	4.79	144.77	289.54
Sena 70	Bernesga Mb.	104.50	209.00	6.83	3.61	4.84	35.23	6.10	150.36	300.72
Sena 71	Bernesga Mb.	145.33	290.67	9.29	4.92	6.59	34.16	5.64	144.33	288.67
Sena 72	Bernesga Mb.	128.53	257.07	7.42	4.43	5.94	35.69	5.77	151.17	302.33
Sena 73	Bernesga Mb.	114.47	228.93	5.34	3.98	5.33	35.19	5.26	150.01	300.03
Sena 74	Bernesga Mb.	125.53	251.07	7.18	4.34	5.82	34.51	5.84	146.41	292.83
Sena 75	Bernesga Mb.	< D.L.	< D.L.	-1.63	< D.L.	< D.L.	34.85	7.83	147.25	294.51

Sample	Formation	15Al2O3	Al2O3/10	K2O *5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	Ti Cal (ppm)	200TiO2	300TiO2	K2O/Al2O3
Sena 51	Bernesga Mb.	432.66	2.88	18.69	< D.L.	9.26	-13575.44	2.46	3.16	7077.04	236.13	354.20	0.13
Sena 52	Bernesga Mb.	425.99	2.84	18.86	< D.L.	< D.L.	-9210.74	2.84	3.65	7275.53	242.76	364.14	0.13
Sena 53	Bernesga Mb.	447.36	2.98	18.26	< D.L.	9.43	-14622.26	2.48	3.20	6936.86	231.46	347.19	0.12
Sena 54	Bernesga Mb.	459.84	3.07	19.46	< D.L.	10.03	-15221.31	2.53	3.26	7377.45	246.16	369.24	0.13
Sena 55	Bernesga Mb.	459.51	3.06	19.51	< D.L.	9.95	-15953.67	2.46	3.16	7237.02	241.47	362.21	0.13
Sena 56	Bernesga Mb.	443.30	2.96	19.37	< D.L.	9.24	-8043.38	3.11	4.00	7162.96	239.00	358.50	0.13
Sena 57	Bernesga Mb.	440.64	2.94	20.06	< D.L.	10.35	-11635.47	2.72	3.50	6825.81	227.75	341.63	0.14
Sena 58	Bernesga Mb.	500.91	3.34	18.12	< D.L.	< D.L.	41384.13	8.56	11.01	6464.39	215.69	323.54	0.11
Sena 59	Bernesga Mb.	452.81	3.02	20.18	< D.L.	10.15	-11716.84	2.82	3.63	7101.59	236.95	355.43	0.13
Sena 60	Bernesga Mb.	444.66	2.96	19.74	< D.L.	9.34	-14734.82	2.45	3.15	6936.73	231.45	347.18	0.13
Sena 61	Bernesga Mb.	474.15	3.16	18.88	< D.L.	10.00	12938.08	5.48	7.05	6758.89	225.52	338.28	0.12
Sena 62	Bernesga Mb.	460.92	3.07	19.27	< D.L.	9.66	4806.19	4.55	5.85	6801.86	226.95	340.43	0.13
Sena 63	Bernesga Mb.	483.33	3.22	19.17	< D.L.	11.27	9964.39	5.26	6.77	6694.39	223.37	335.05	0.12
Sena 64	Bernesga Mb.	419.16	2.79	19.48	< D.L.	9.17	-12459.70	2.45	3.15	7021.89	234.29	351.44	0.14
Sena 65	Bernesga Mb.	434.05	2.89	19.73	< D.L.	< D.L.	-3771.67	3.45	4.44	7029.36	234.54	351.82	0.14
Sena 66	Bernesga Mb.	466.84	3.11	20.04	< D.L.	9.73	-12981.00	2.82	3.63	7094.16	236.71	355.06	0.13
Sena 67	Bernesga Mb.	435.61	2.90	18.77	< D.L.	< D.L.	10725.54	4.92	6.32	6969.40	232.54	348.81	0.13
Sena 68	Bernesga Mb.	433.43	2.89	19.26	< D.L.	10.38	-4737.36	3.35	4.31	7368.28	245.85	368.78	0.13
Sena 69	Bernesga Mb.	434.31	2.90	19.04	< D.L.	< D.L.	-4811.30	3.35	4.31	7212.72	240.66	360.99	0.13
Sena 70	Bernesga Mb.	451.08	3.01	19.10	< D.L.	< D.L.	2877.25	4.27	5.49	6944.72	231.72	347.58	0.13
Sena 71	Bernesga Mb.	433.00	2.89	19.62	< D.L.	11.12	-6540.39	3.17	4.07	7069.49	235.88	353.82	0.14
Sena 72	Bernesga Mb.	453.50	3.02	20.27	< D.L.	9.77	-6458.30	3.35	4.32	7110.59	237.25	355.88	0.13
Sena 73	Bernesga Mb.	450.04	3.00	19.22	< D.L.	9.84	-9765.72	2.99	3.85	7010.21	233.90	350.86	0.13
Sena 74	Bernesga Mb.	439.24	2.93	19.39	< D.L.	9.87	-4832.56	3.39	4.36	7030.06	234.57	351.85	0.13
Sena 75	Bernesga Mb.	441.76	2.95	20.04	< D.L.	< D.L.	15817.64	5.48	7.05	6826.61	227.78	341.67	0.14

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
Sena 51	Bernesga Mb.	-0.89	0.03	0.55	0.26	0.35	2.84	-0.45	21.91
Sena 52	Bernesga Mb.	-0.88	< D.L.	0.61	0.26	0.35	2.84	-0.45	21.42
Sena 53	Bernesga Mb.	-0.91	0.03	0.55	0.26	0.35	2.83	-0.45	23.08
Sena 54	Bernesga Mb.	-0.90	0.03	0.56	0.25	0.35	2.86	-0.46	22.56
Sena 55	Bernesga Mb.	-0.90	0.03	0.55	0.25	0.35	2.87	-0.46	22.50
Sena 56	Bernesga Mb.	-0.88	0.03	0.65	0.25	0.35	2.86	-0.46	21.83
Sena 57	Bernesga Mb.	-0.86	0.04	0.59	0.26	0.35	2.88	-0.46	21.10
Sena 58	Bernesga Mb.	-0.96	< D.L.	1.09	0.17	0.35	2.82	-0.45	25.99
Sena 59	Bernesga Mb.	-0.87	0.03	0.61	0.25	0.35	2.89	-0.46	21.57
Sena 60	Bernesga Mb.	-0.88	0.03	0.54	0.26	0.35	2.87	-0.46	21.57
Sena 61	Bernesga Mb.	-0.92	0.03	0.89	0.20	0.35	2.85	-0.45	23.83
Sena 62	Bernesga Mb.	-0.90	0.03	0.81	0.24	0.35	2.86	-0.46	22.78
Sena 63	Bernesga Mb.	-0.92	0.04	0.88	0.21	0.35	2.85	-0.46	23.99
Sena 64	Bernesga Mb.	-0.86	0.03	0.54	0.28	0.35	2.86	-0.46	20.55
Sena 65	Bernesga Mb.	-0.87	< D.L.	0.69	0.25	0.35	2.87	-0.46	21.06
Sena 66	Bernesga Mb.	-0.89	0.03	0.61	0.24	0.35	2.88	-0.46	22.37
Sena 67	Bernesga Mb.	-0.89	< D.L.	0.85	0.23	0.35	2.84	-0.45	21.98
Sena 68	Bernesga Mb.	-0.88	0.04	0.68	0.26	0.35	2.86	-0.46	21.44
Sena 69	Bernesga Mb.	-0.88	< D.L.	0.68	0.25	0.35	2.85	-0.46	21.67
Sena 70	Bernesga Mb.	-0.90	< D.L.	0.79	0.24	0.35	2.85	-0.46	22.45
Sena 71	Bernesga Mb.	-0.87	0.04	0.66	0.27	0.35	2.87	-0.46	21.10
Sena 72	Bernesga Mb.	-0.87	0.03	0.68	0.26	0.35	2.89	-0.46	21.53
Sena 73	Bernesga Mb.	-0.89	0.03	0.63	0.27	0.35	2.86	-0.46	22.30
Sena 74	Bernesga Mb.	-0.88	0.03	0.69	0.27	0.35	2.86	-0.46	21.61
Sena 75	Bernesga Mb.	-0.87	< D.L.	0.89	0.23	0.35	2.88	-0.46	21.17

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
Sena 51	Bernesga Mb.	1.32	5.05	4.44	1.83	0.26	0.55	0.12	46.25	0.01
Sena 52	Bernesga Mb.	1.33	5.10	4.06	1.82	0.26	0.55	0.14	44.33	0.01
Sena 53	Bernesga Mb.	1.29	4.94	4.49	1.81	0.26	0.55	0.12	46.44	0.01
Sena 54	Bernesga Mb.	1.36	5.25	4.63	1.77	0.25	0.56	0.12	43.72	0.01
Sena 55	Bernesga Mb.	1.36	5.26	4.51	1.79	0.25	0.56	0.11	44.65	0.01
Sena 56	Bernesga Mb.	1.35	5.23	5.36	1.78	0.25	0.56	0.15	43.00	0.01
Sena 57	Bernesga Mb.	1.39	5.40	4.93	1.82	0.26	0.55	0.13	43.03	0.01
Sena 58	Bernesga Mb.	1.29	4.91	12.23	1.47	0.17	0.68	0.37	37.24	0.00
Sena 59	Bernesga Mb.	1.40	5.44	5.05	1.79	0.25	0.56	0.13	43.23	0.01
Sena 60	Bernesga Mb.	1.37	5.32	4.44	1.81	0.26	0.55	0.12	45.41	0.01
Sena 61	Bernesga Mb.	1.33	5.10	8.83	1.60	0.20	0.63	0.25	40.71	0.00
Sena 62	Bernesga Mb.	1.35	5.20	7.47	1.72	0.24	0.58	0.21	40.39	0.00
Sena 63	Bernesga Mb.	1.34	5.18	8.65	1.62	0.21	0.62	0.23	39.45	0.00
Sena 64	Bernesga Mb.	1.36	5.26	4.42	1.90	0.28	0.53	0.13	45.44	0.01
Sena 65	Bernesga Mb.	1.37	5.32	4.93	1.79	0.25	0.56	0.17	42.93	0.01
Sena 66	Bernesga Mb.	1.39	5.40	5.00	1.74	0.24	0.58	0.13	43.39	0.01
Sena 67	Bernesga Mb.	1.32	5.08	7.03	1.69	0.23	0.59	0.24	41.42	0.01
Sena 68	Bernesga Mb.	1.35	5.20	5.83	1.81	0.26	0.55	0.17	42.87	0.01
Sena 69	Bernesga Mb.	1.34	5.15	4.79	1.77	0.25	0.56	0.17	42.44	0.01
Sena 70	Bernesga Mb.	1.34	5.16	6.10	1.74	0.24	0.57	0.20	40.02	0.00
Sena 71	Bernesga Mb.	1.37	5.29	5.64	1.88	0.27	0.53	0.16	41.24	0.01
Sena 72	Bernesga Mb.	1.40	5.46	5.77	1.81	0.26	0.55	0.16	41.29	0.01
Sena 73	Bernesga Mb.	1.35	5.19	5.26	1.85	0.27	0.54	0.14	42.90	0.01
Sena 74	Bernesga Mb.	1.35	5.23	5.84	1.88	0.27	0.53	0.17	41.78	0.01
Sena 75	Bernesga Mb.	1.39	5.40	7.83	1.71	0.23	0.58	0.27	38.62	0.00

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Zr/Sc	Cr/Th	Th/Sc
Sena 51	Bernesga Mb.	24.43	0.06	335.71	< D.L.	187.63	0.23	0.81	1.21	< D.L.	< D.L.	7.25	< D.L.	6.42	< D.L.
Sena 52	Bernesga Mb.	23.40	0.06	353.52	< D.L.	187.61	0.22	0.83	1.33	< D.L.	< D.L.	6.33	< D.L.	7.27	< D.L.
Sena 53	Bernesga Mb.	25.77	0.05	325.32	< D.L.	191.51	0.23	0.83	1.30	< D.L.	< D.L.	6.35	< D.L.	7.37	< D.L.
Sena 54	Bernesga Mb.	24.91	0.06	352.11	< D.L.	178.81	0.19	0.82	1.26	< D.L.	< D.L.	6.32	< D.L.	7.33	< D.L.
Sena 55	Bernesga Mb.	25.37	0.06	345.59	< D.L.	191.03	0.22	0.79	1.36	< D.L.	< D.L.	6.78	< D.L.	6.78	< D.L.
Sena 56	Bernesga Mb.	24.73	0.06	338.55	< D.L.	185.06	0.20	0.82	1.42	< D.L.	13.29	5.76	7.53	7.94	0.97
Sena 57	Bernesga Mb.	25.80	0.06	342.50	< D.L.	173.05	0.19	0.77	1.23	< D.L.	< D.L.	5.83	< D.L.	7.61	< D.L.
Sena 58	Bernesga Mb.	30.96	0.06	366.68	0.87	195.01	0.45	0.78	1.49	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Sena 59	Bernesga Mb.	25.48	0.06	348.62	< D.L.	201.62	0.30	0.81	1.17	< D.L.	9.22	6.05	5.62	7.74	0.82
Sena 60	Bernesga Mb.	25.62	0.06	350.92	< D.L.	196.16	0.26	0.79	1.16	< D.L.	11.77	6.58	6.94	7.18	1.12
Sena 61	Bernesga Mb.	28.03	0.07	424.78	1.35	196.60	0.41	0.74	1.32	< D.L.	< D.L.	2.66	< D.L.	14.31	< D.L.
Sena 62	Bernesga Mb.	27.08	0.06	349.83	1.12	194.60	0.38	0.74	1.35	< D.L.	< D.L.	3.06	< D.L.	12.54	< D.L.
Sena 63	Bernesga Mb.	28.85	0.06	346.79	0.92	196.87	0.46	0.65	1.39	< D.L.	< D.L.	2.23	< D.L.	14.77	< D.L.
Sena 64	Bernesga Mb.	23.85	0.05	326.71	< D.L.	191.18	0.25	0.79	1.16	< D.L.	< D.L.	7.15	< D.L.	6.50	< D.L.
Sena 65	Bernesga Mb.	24.67	0.06	350.84	< D.L.	204.72	0.39	0.75	1.16	< D.L.	9.31	4.37	6.13	9.73	0.62
Sena 66	Bernesga Mb.	26.30	0.06	356.89	< D.L.	196.36	0.29	0.82	1.10	< D.L.	< D.L.	5.80	< D.L.	8.15	< D.L.
Sena 67	Bernesga Mb.	24.98	0.06	365.85	< D.L.	198.69	0.45	0.73	1.21	< D.L.	< D.L.	2.48	< D.L.	15.29	< D.L.
Sena 68	Bernesga Mb.	23.51	0.06	337.62	< D.L.	221.47	0.38	0.86	1.28	< D.L.	< D.L.	6.17	< D.L.	7.69	< D.L.
Sena 69	Bernesga Mb.	24.06	0.05	327.79	< D.L.	207.98	0.29	0.89	1.37	< D.L.	< D.L.	5.58	< D.L.	8.64	< D.L.
Sena 70	Bernesga Mb.	25.96	0.06	350.48	< D.L.	195.44	0.38	0.77	1.34	< D.L.	9.35	3.62	6.72	10.88	0.50
Sena 71	Bernesga Mb.	24.48	0.06	329.43	< D.L.	184.14	0.28	0.75	1.38	22.38	< D.L.	5.24	< D.L.	7.76	< D.L.
Sena 72	Bernesga Mb.	25.49	0.05	326.48	< D.L.	196.15	0.30	0.79	1.28	45.08	8.42	5.43	5.82	8.15	0.64
Sena 73	Bernesga Mb.	25.65	0.05	323.45	< D.L.	188.88	0.29	0.76	1.33	59.09	11.70	6.10	8.48	6.82	0.97
Sena 74	Bernesga Mb.	24.97	0.05	324.92	< D.L.	188.71	0.32	0.75	1.32	< D.L.	< D.L.	5.38	< D.L.	7.50	< D.L.
Sena 75	Bernesga Mb.	25.86	0.06	361.99	< D.L.	178.52	0.35	0.70	1.31	< D.L.	< D.L.	1.63	< D.L.	22.21	< D.L.

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
Sena 51	Bernesga Mb.	0.74	1.34	0.02	6.10	0.92	1.13	0.85	0.67	1.50
Sena 52	Bernesga Mb.	0.75	1.33	0.02	6.12	0.91	1.49	< D.L.	0.62	1.62
Sena 53	Bernesga Mb.	0.76	1.31	0.02	6.06	0.92	0.95	< D.L.	0.64	1.57
Sena 54	Bernesga Mb.	0.77	1.30	0.02	6.24	0.94	0.98	< D.L.	0.65	1.54
Sena 55	Bernesga Mb.	0.78	1.28	0.02	6.47	0.98	1.10	< D.L.	0.58	1.72
Sena 56	Bernesga Mb.	0.80	1.24	0.02	6.32	0.98	1.72	< D.L.	0.58	1.72
Sena 57	Bernesga Mb.	0.75	1.33	0.02	6.49	0.97	0.91	< D.L.	0.63	1.60
Sena 58	Bernesga Mb.	0.76	1.32	0.02	5.82	0.98	5.12	< D.L.	0.52	1.91
Sena 59	Bernesga Mb.	0.72	1.40	0.02	6.13	0.89	1.65	< D.L.	0.69	1.46
Sena 60	Bernesga Mb.	0.68	1.46	0.02	6.21	0.87	1.13	< D.L.	0.68	1.47
Sena 61	Bernesga Mb.	0.70	1.42	0.02	6.78	0.94	3.08	< D.L.	0.57	1.77
Sena 62	Bernesga Mb.	0.81	1.23	0.02	6.50	1.10	3.03	< D.L.	0.55	1.83
Sena 63	Bernesga Mb.	0.72	1.39	0.02	5.65	1.10	3.71	< D.L.	0.47	2.13
Sena 64	Bernesga Mb.	0.76	1.32	0.02	6.26	0.96	1.14	< D.L.	0.68	1.47
Sena 65	Bernesga Mb.	0.76	1.31	0.02	6.44	1.01	1.94	< D.L.	0.65	1.54
Sena 66	Bernesga Mb.	0.73	1.37	0.02	6.37	0.89	1.54	< D.L.	0.74	1.35
Sena 67	Bernesga Mb.	0.74	1.35	0.02	6.04	1.01	3.25	< D.L.	0.60	1.66
Sena 68	Bernesga Mb.	0.77	1.30	0.02	5.83	0.89	4.51	< D.L.	0.67	1.48
Sena 69	Bernesga Mb.	0.78	1.28	0.02	5.72	0.87	2.68	< D.L.	0.65	1.54
Sena 70	Bernesga Mb.	0.96	1.04	0.02	7.40	1.24	2.99	< D.L.	0.58	1.73
Sena 71	Bernesga Mb.	1.01	0.99	0.02	7.60	1.34	2.44	< D.L.	0.55	1.83
Sena 72	Bernesga Mb.	0.89	1.13	0.02	6.81	1.12	2.11	< D.L.	0.62	1.62
Sena 73	Bernesga Mb.	0.97	1.03	0.02	7.35	1.28	1.85	< D.L.	0.57	1.76
Sena 74	Bernesga Mb.	0.97	1.04	0.02	7.23	1.29	2.04	< D.L.	0.56	1.77
Sena 75	Bernesga Mb.	0.79	1.26	0.02	6.49	1.13	3.59	0.35	0.54	1.86

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
Sena 51	Bernesga Mb.	0.43	0.76	13.72	< D.L.	2.02	0.72	3.14	9.15
Sena 52	Bernesga Mb.	0.77	0.73	14.84	< D.L.	2.91	1.21	3.30	9.18
Sena 53	Bernesga Mb.	0.37	0.80	13.95	< D.L.	< D.L.	0.82	3.24	8.90
Sena 54	Bernesga Mb.	0.63	0.67	13.18	< D.L.	1.93	0.90	2.45	8.57
Sena 55	Bernesga Mb.	0.34	0.76	14.63	< D.L.	< D.L.	0.86	3.28	8.51
Sena 56	Bernesga Mb.	0.99	0.78	15.11	< D.L.	< D.L.	1.56	3.06	8.77
Sena 57	Bernesga Mb.	0.46	0.81	13.69	< D.L.	2.58	0.96	2.57	8.56
Sena 58	Bernesga Mb.	2.47	0.64	11.36	3.60	< D.L.	3.14	5.08	5.95
Sena 59	Bernesga Mb.	0.81	0.84	12.82	< D.L.	< D.L.	1.93	3.82	8.80
Sena 60	Bernesga Mb.	< D.L.	0.85	13.27	< D.L.	2.08	0.70	3.47	9.03
Sena 61	Bernesga Mb.	1.88	0.54	12.09	2.69	< D.L.	3.63	4.92	6.83
Sena 62	Bernesga Mb.	1.31	0.61	12.96	2.15	< D.L.	2.40	4.89	7.07
Sena 63	Bernesga Mb.	1.70	0.61	12.36	2.17	< D.L.	2.00	5.74	5.80
Sena 64	Bernesga Mb.	< D.L.	0.94	13.82	< D.L.	2.04	0.73	3.50	9.43
Sena 65	Bernesga Mb.	1.21	0.79	12.79	< D.L.	< D.L.	2.09	5.04	8.33
Sena 66	Bernesga Mb.	0.69	0.77	11.60	< D.L.	< D.L.	0.92	3.31	8.61
Sena 67	Bernesga Mb.	1.49	0.67	12.28	< D.L.	< D.L.	3.24	5.52	7.41
Sena 68	Bernesga Mb.	0.89	0.68	13.80	< D.L.	7.11	2.38	5.18	9.31
Sena 69	Bernesga Mb.	0.94	0.75	14.48	< D.L.	6.21	0.95	4.15	9.43
Sena 70	Bernesga Mb.	1.78	0.66	12.82	< D.L.	< D.L.	3.73	4.85	7.43
Sena 71	Bernesga Mb.	1.04	0.95	14.58	< D.L.	2.05	1.34	4.06	7.99
Sena 72	Bernesga Mb.	1.09	0.80	13.41	< D.L.	2.42	2.00	3.96	8.30
Sena 73	Bernesga Mb.	0.82	0.72	13.84	< D.L.	2.60	2.10	4.03	7.87
Sena 74	Bernesga Mb.	1.31	0.81	13.83	< D.L.	< D.L.	2.52	4.37	7.80
Sena 75	Bernesga Mb.	2.01	< D.L.	12.99	< D.L.	< D.L.	2.11	4.48	6.97

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
Sena 51	Bernesga Mb.	< D.L.	12.48	28.08	12.78	8.42	0.81	19.19	< D.L.
Sena 52	Bernesga Mb.	< D.L.	12.72	28.71	16.63	8.38	0.82	19.62	< D.L.
Sena 53	Bernesga Mb.	< D.L.	12.00	27.52	10.19	8.18	0.81	18.80	< D.L.
Sena 54	Bernesga Mb.	< D.L.	11.68	26.75	10.25	8.05	0.84	18.28	< D.L.
Sena 55	Bernesga Mb.	< D.L.	11.56	26.70	11.84	8.36	0.82	18.25	< D.L.
Sena 56	Bernesga Mb.	< D.L.	11.94	27.85	18.28	8.56	0.83	19.03	< D.L.
Sena 57	Bernesga Mb.	< D.L.	12.08	27.81	10.15	8.32	0.84	19.00	< D.L.
Sena 58	Bernesga Mb.	< D.L.	10.38	27.30	39.10	5.80	0.69	18.66	< D.L.
Sena 59	Bernesga Mb.	< D.L.	11.87	27.61	18.04	7.81	0.77	18.87	< D.L.
Sena 60	Bernesga Mb.	< D.L.	12.20	27.43	12.87	7.82	0.79	18.75	< D.L.
Sena 61	Bernesga Mb.	< D.L.	11.01	27.58	28.26	6.45	0.71	18.85	< D.L.
Sena 62	Bernesga Mb.	< D.L.	11.29	30.19	29.00	7.78	0.73	20.63	< D.L.
Sena 63	Bernesga Mb.	< D.L.	10.81	27.33	32.94	6.40	0.68	18.68	< D.L.
Sena 64	Bernesga Mb.	< D.L.	12.80	29.27	13.64	9.10	0.80	20.00	< D.L.
Sena 65	Bernesga Mb.	< D.L.	12.23	28.77	21.49	8.42	0.72	19.66	< D.L.
Sena 66	Bernesga Mb.	< D.L.	11.46	26.33	16.22	7.69	0.78	17.99	< D.L.
Sena 67	Bernesga Mb.	< D.L.	12.03	29.16	32.87	7.49	0.69	19.93	< D.L.
Sena 68	Bernesga Mb.	< D.L.	14.45	28.94	48.66	8.31	0.73	19.78	< D.L.
Sena 69	Bernesga Mb.	< D.L.	12.19	29.34	28.24	8.22	0.78	20.05	< D.L.
Sena 70	Bernesga Mb.	< D.L.	11.38	28.40	28.73	9.22	0.73	19.41	< D.L.
Sena 71	Bernesga Mb.	0.65	11.86	36.44	25.83	10.68	0.78	24.90	0.34
Sena 72	Bernesga Mb.	0.30	11.33	28.02	22.12	9.27	0.77	19.15	0.16
Sena 73	Bernesga Mb.	0.23	11.37	27.19	19.18	10.04	0.77	18.58	0.12
Sena 74	Bernesga Mb.	< D.L.	11.73	29.06	21.30	10.10	0.76	19.86	< D.L.
Sena 75	Bernesga Mb.	< D.L.	11.51	26.47	35.67	7.85	0.74	18.09	< D.L.

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
Sena 51	Bernesga Mb.	1.88	0.53	1.58	11.11	0.37	0.94	-0.03	0.65	0.01	< D.L.	< D.L.
Sena 52	Bernesga Mb.	1.73	0.58	1.53	11.48	0.25	1.08	0.03	1.15	0.01	< D.L.	< D.L.
Sena 53	Bernesga Mb.	1.50	0.67	1.58	10.19	< D.L.	0.97	-0.01	0.58	0.01	< D.L.	< D.L.
Sena 54	Bernesga Mb.	1.75	0.57	1.59	12.06	0.35	0.93	-0.03	1.03	0.01	< D.L.	< D.L.
Sena 55	Bernesga Mb.	1.65	0.61	1.65	10.98	< D.L.	0.90	-0.05	0.55	0.01	< D.L.	< D.L.
Sena 56	Bernesga Mb.	1.42	0.70	1.61	11.00	< D.L.	1.15	0.06	1.55	0.01	< D.L.	< D.L.
Sena 57	Bernesga Mb.	1.39	0.72	1.61	10.25	0.31	0.97	-0.01	0.71	0.01	< D.L.	< D.L.
Sena 58	Bernesga Mb.	< D.L.	< D.L.	1.30	9.11	< D.L.	3.38	0.53	4.36	0.01	0.05	0.46
Sena 59	Bernesga Mb.	1.35	0.74	1.58	9.25	< D.L.	1.00	0.00	1.29	0.01	< D.L.	< D.L.
Sena 60	Bernesga Mb.	1.48	0.68	1.58	9.20	0.41	0.89	-0.05	< D.L.	0.01	< D.L.	< D.L.
Sena 61	Bernesga Mb.	0.89	1.12	1.42	12.05	< D.L.	2.07	0.32	3.14	0.01	< D.L.	< D.L.
Sena 62	Bernesga Mb.	0.93	1.08	1.54	12.76	< D.L.	1.69	0.23	2.13	0.01	< D.L.	< D.L.
Sena 63	Bernesga Mb.	0.64	1.56	1.41	10.44	< D.L.	1.96	0.29	2.90	0.01	< D.L.	< D.L.
Sena 64	Bernesga Mb.	1.54	0.65	1.65	9.66	0.46	0.90	-0.05	< D.L.	0.01	< D.L.	< D.L.
Sena 65	Bernesga Mb.	1.08	0.92	1.59	10.66	< D.L.	1.25	0.10	1.86	0.01	< D.L.	< D.L.
Sena 66	Bernesga Mb.	1.37	0.73	1.59	9.99	< D.L.	1.01	0.00	1.14	0.01	< D.L.	< D.L.
Sena 67	Bernesga Mb.	0.73	1.37	1.46	11.24	< D.L.	1.87	0.27	2.29	0.01	< D.L.	< D.L.
Sena 68	Bernesga Mb.	1.78	0.56	1.32	12.20	0.10	1.24	0.09	1.36	0.01	< D.L.	< D.L.
Sena 69	Bernesga Mb.	1.46	0.69	1.54	10.96	0.12	1.26	0.10	1.45	0.01	< D.L.	< D.L.
Sena 70	Bernesga Mb.	1.04	0.96	1.65	14.04	< D.L.	1.60	0.20	2.84	0.01	< D.L.	< D.L.
Sena 71	Bernesga Mb.	1.08	0.92	1.79	11.22	0.46	1.15	0.06	1.58	0.01	< D.L.	< D.L.
Sena 72	Bernesga Mb.	1.27	0.79	1.74	11.54	0.33	1.18	0.07	1.75	0.01	< D.L.	< D.L.
Sena 73	Bernesga Mb.	1.60	0.63	1.80	13.93	0.28	1.11	0.05	1.30	0.01	< D.L.	< D.L.
Sena 74	Bernesga Mb.	1.28	0.78	1.75	12.46	< D.L.	1.25	0.10	2.03	0.01	< D.L.	< D.L.
Sena 75	Bernesga Mb.	< D.L.	< D.L.	1.54	< D.L.	< D.L.	1.95	0.29	3.14	0.01	0.04	0.36

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
Sena 51	Bernesga Mb.	< D.L.	< D.L.	< D.L.	4.33	7.22	12.86	398743.75	1154.63	-25.81
Sena 52	Bernesga Mb.	< D.L.	< D.L.	< D.L.	4.64	7.41	12.59	392180.87	678.57	-24.14
Sena 53	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.32	7.08	12.92	410546.49	640.73	-26.87
Sena 54	Bernesga Mb.	< D.L.	< D.L.	< D.L.	4.52	7.52	13.06	416443.73	543.77	-27.67
Sena 55	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.57	7.37	13.56	417894.71	670.53	-27.88
Sena 56	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.41	7.30	13.38	402727.44	723.83	-24.65
Sena 57	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.79	6.96	12.93	404805.15	549.45	-25.61
Sena 58	Bernesga Mb.	910.65	0.07	0.09	11.27	6.57	10.26	406908.31	1453.27	-12.41
Sena 59	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.44	7.24	12.48	412481.97	918.30	-26.25
Sena 60	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.76	7.08	12.27	408291.65	654.37	-26.76
Sena 61	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.30	6.87	10.79	403093.39	1430.20	-19.77
Sena 62	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.85	6.92	12.65	409405.03	1185.57	-21.60
Sena 63	Bernesga Mb.	< D.L.	< D.L.	< D.L.	8.22	6.79	10.92	413781.34	1319.30	-21.14
Sena 64	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.78	7.16	13.45	395994.08	625.20	-24.79
Sena 65	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.73	7.16	12.90	395431.79	1092.53	-22.88
Sena 66	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.88	7.24	12.67	417133.91	696.43	-27.34
Sena 67	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.75	7.08	11.51	383177.42	1345.17	-18.52
Sena 68	Bernesga Mb.	< D.L.	< D.L.	< D.L.	4.25	7.51	12.72	396786.11	1156.00	-23.14
Sena 69	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.91	7.36	12.59	393120.07	780.67	-23.21
Sena 70	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.83	7.06	14.67	404240.83	1366.30	-21.70
Sena 71	Bernesga Mb.	< D.L.	< D.L.	< D.L.	9.29	7.19	16.31	406442.93	825.83	-23.67
Sena 72	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.42	7.24	14.84	415962.14	953.20	-24.67
Sena 73	Bernesga Mb.	< D.L.	< D.L.	< D.L.	5.34	7.14	15.94	418718.37	973.87	-25.51
Sena 74	Bernesga Mb.	< D.L.	< D.L.	< D.L.	7.18	7.15	15.65	412663.44	1067.67	-23.46
Sena 75	Bernesga Mb.	724.19	0.05	0.07	-1.63	6.94	12.24	391872.17	3036.35	-17.27

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
Sena 51	Bernesga Mb.	-12.06	15.58	-3.70	0.77	95.02	95.64
Sena 52	Bernesga Mb.	-11.28	15.34	-3.04	0.79	94.89	95.54
Sena 53	Bernesga Mb.	-12.55	16.11	-3.90	0.76	95.29	95.85
Sena 54	Bernesga Mb.	-12.93	16.55	-4.04	0.76	95.17	95.76
Sena 55	Bernesga Mb.	-13.03	16.54	-4.14	0.76	95.15	95.74
Sena 56	Bernesga Mb.	-11.52	15.96	-2.95	0.80	94.99	95.62
Sena 57	Bernesga Mb.	-11.97	15.86	-3.45	0.78	94.80	95.48
Sena 58	Bernesga Mb.	-5.80	18.03	3.89	3.03	95.86	96.29
Sena 59	Bernesga Mb.	-12.27	16.30	-3.51	0.78	94.92	95.57
Sena 60	Bernesga Mb.	-12.51	16.01	-3.91	0.76	94.92	95.57
Sena 61	Bernesga Mb.	-9.24	17.07	-0.07	0.99	95.45	95.97
Sena 62	Bernesga Mb.	-10.09	16.59	-1.18	0.90	95.22	95.80
Sena 63	Bernesga Mb.	-9.88	17.40	-0.54	0.95	95.48	96.00
Sena 64	Bernesga Mb.	-11.59	15.09	-3.48	0.77	94.65	95.36
Sena 65	Bernesga Mb.	-10.69	15.63	-2.30	0.82	94.79	95.47
Sena 66	Bernesga Mb.	-12.77	16.81	-3.75	0.77	95.12	95.72
Sena 67	Bernesga Mb.	-8.65	15.68	-0.23	0.97	95.04	95.65
Sena 68	Bernesga Mb.	-10.81	15.60	-2.44	0.82	94.89	95.54
Sena 69	Bernesga Mb.	-10.85	15.64	-2.45	0.82	94.95	95.59
Sena 70	Bernesga Mb.	-10.14	16.24	-1.42	0.88	95.15	95.74
Sena 71	Bernesga Mb.	-11.06	15.59	-2.69	0.80	94.80	95.48
Sena 72	Bernesga Mb.	-11.53	16.33	-2.76	0.81	94.91	95.56
Sena 73	Bernesga Mb.	-11.92	16.20	-3.22	0.79	95.11	95.71
Sena 74	Bernesga Mb.	-10.96	15.81	-2.47	0.82	94.94	95.58
Sena 75	Bernesga Mb.	-8.07	15.90	0.47	1.06	94.82	95.49

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
Sena 51	Bernesga Mb.	85.09	3.72	-0.36	3.75
Sena 52	Bernesga Mb.	84.78	5.15	0.60	5.19
Sena 53	Bernesga Mb.	85.78	4.45	-0.46	4.48
Sena 54	Bernesga Mb.	85.38	4.53	-0.08	4.56
Sena 55	Bernesga Mb.	85.34	4.48	-0.04	4.51
Sena 56	Bernesga Mb.	84.97	4.68	-0.32	4.71
Sena 57	Bernesga Mb.	84.46	3.94	-0.13	3.97
Sena 58	Bernesga Mb.	87.18	14.80	-1.38	14.83
Sena 59	Bernesga Mb.	84.74	4.46	-0.03	4.50
Sena 60	Bernesga Mb.	84.78	3.99	0.01	4.02
Sena 61	Bernesga Mb.	86.10	8.62	-1.29	8.65
Sena 62	Bernesga Mb.	85.52	7.02	-0.85	7.05
Sena 63	Bernesga Mb.	86.16	8.52	-1.23	8.55
Sena 64	Bernesga Mb.	84.17	3.02	-0.16	3.05
Sena 65	Bernesga Mb.	84.47	6.03	0.67	6.06
Sena 66	Bernesga Mb.	85.21	5.13	0.04	5.16
Sena 67	Bernesga Mb.	85.12	7.91	-0.14	7.94
Sena 68	Bernesga Mb.	84.75	4.34	-0.60	4.37
Sena 69	Bernesga Mb.	84.91	6.02	0.51	6.06
Sena 70	Bernesga Mb.	85.35	7.77	0.26	7.80
Sena 71	Bernesga Mb.	84.51	4.02	-0.53	4.05
Sena 72	Bernesga Mb.	84.71	5.11	-0.14	5.14
Sena 73	Bernesga Mb.	85.26	4.82	-0.37	4.85
Sena 74	Bernesga Mb.	84.84	4.77	-0.51	4.80
Sena 75	Bernesga Mb.	84.51	8.54	0.06	8.57

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
Sena 51	Bernesga Mb.	1.02	4.75	-40.84	0.89
Sena 52	Bernesga Mb.	1.99	4.58	-42.12	0.87
Sena 53	Bernesga Mb.	0.89	4.70	-41.89	0.89
Sena 54	Bernesga Mb.	1.34	4.66	-42.86	0.89
Sena 55	Bernesga Mb.	1.38	4.68	-42.84	0.90
Sena 56	Bernesga Mb.	1.10	4.68	-43.31	0.87
Sena 57	Bernesga Mb.	1.32	4.79	-42.67	0.88
Sena 58	Bernesga Mb.	-0.04	4.17	-60.02	0.73
Sena 59	Bernesga Mb.	1.43	4.70	-43.65	0.88
Sena 60	Bernesga Mb.	1.44	4.76	-42.14	0.89
Sena 61	Bernesga Mb.	0.09	4.58	-50.09	0.80
Sena 62	Bernesga Mb.	0.55	4.56	-48.11	0.82
Sena 63	Bernesga Mb.	0.17	4.57	-50.49	0.81
Sena 64	Bernesga Mb.	1.25	4.75	-40.85	0.89
Sena 65	Bernesga Mb.	2.11	4.58	-44.60	0.85
Sena 66	Bernesga Mb.	1.49	4.71	-44.10	0.88
Sena 67	Bernesga Mb.	1.24	4.51	-47.35	0.80
Sena 68	Bernesga Mb.	0.81	4.65	-43.22	0.86
Sena 69	Bernesga Mb.	1.91	4.56	-43.78	0.86
Sena 70	Bernesga Mb.	1.66	4.45	-47.57	0.83
Sena 71	Bernesga Mb.	0.90	4.60	-43.70	0.86
Sena 72	Bernesga Mb.	1.32	4.61	-45.55	0.86
Sena 73	Bernesga Mb.	1.03	4.60	-44.39	0.87
Sena 74	Bernesga Mb.	0.90	4.56	-45.00	0.86
Sena 75	Bernesga Mb.	1.52	4.46	-50.29	0.79

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
Sena 51	Bernesga Mb.	2.98	0.37	4.00	4.00	1.00	< D.L.	9.00
Sena 52	Bernesga Mb.	3.34	0.37	4.00	4.00	1.00	< D.L.	9.00
Sena 53	Bernesga Mb.	3.07	0.36	4.00	4.00	1.00	< D.L.	9.00
Sena 54	Bernesga Mb.	2.94	0.36	4.00	4.00	1.00	< D.L.	9.00
Sena 55	Bernesga Mb.	2.91	0.36	4.00	4.00	1.00	< D.L.	9.00
Sena 56	Bernesga Mb.	3.72	0.40	4.00	4.00	1.00	< D.L.	9.00
Sena 57	Bernesga Mb.	3.42	0.39	4.00	4.00	1.00	< D.L.	9.00
Sena 58	Bernesga Mb.	11.34	0.55	4.00	4.00	1.00	< D.L.	9.00
Sena 59	Bernesga Mb.	3.41	0.39	4.00	4.00	1.00	< D.L.	9.00
Sena 60	Bernesga Mb.	3.03	0.37	4.00	4.00	1.00	< D.L.	9.00
Sena 61	Bernesga Mb.	6.94	0.48	4.00	4.00	1.00	< D.L.	9.00
Sena 62	Bernesga Mb.	5.73	0.45	4.00	4.00	1.00	< D.L.	9.00
Sena 63	Bernesga Mb.	6.73	0.47	4.00	4.00	1.00	< D.L.	9.00
Sena 64	Bernesga Mb.	2.99	0.39	4.00	4.00	1.00	< D.L.	9.00
Sena 65	Bernesga Mb.	4.21	0.40	4.00	4.00	1.00	< D.L.	9.00
Sena 66	Bernesga Mb.	3.41	0.37	4.00	4.00	1.00	< D.L.	9.00
Sena 67	Bernesga Mb.	6.04	0.46	4.00	4.00	1.00	< D.L.	9.00
Sena 68	Bernesga Mb.	3.90	0.43	4.00	4.00	1.00	< D.L.	9.00
Sena 69	Bernesga Mb.	3.98	0.39	4.00	4.00	1.00	< D.L.	9.00
Sena 70	Bernesga Mb.	5.27	0.41	4.00	4.00	1.00	< D.L.	9.00
Sena 71	Bernesga Mb.	3.84	0.42	4.00	4.00	4.00	< D.L.	12.00
Sena 72	Bernesga Mb.	4.04	0.41	4.00	4.00	4.00	< D.L.	12.00
Sena 73	Bernesga Mb.	3.66	0.39	4.00	4.00	4.00	< D.L.	12.00
Sena 74	Bernesga Mb.	4.13	0.42	4.00	4.00	1.00	< D.L.	9.00
Sena 75	Bernesga Mb.	6.88	0.49	1.00	< D.L.	1.00	< D.L.	< D.L.

4.4 Sena 76 - 79

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
Sena 76	Bernesga Mb.	72.99	< D.L.	39.25	112.24	39.25
Sena 77	Bernesga Mb.	75.33	20.40	43.17	138.91	63.58
Sena 78	Bernesga Mb.	64.20	25.81	42.59	132.61	68.41
Sena 79	Bernesga Mb.	69.75	28.56	43.26	141.58	71.82

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
Sena 76	Bernesga Mb.	87.28	< D.L.	59.02	146.30	59.02
Sena 77	Bernesga Mb.	90.08	32.13	64.92	187.13	97.05
Sena 78	Bernesga Mb.	76.77	40.65	64.05	181.48	104.70
Sena 79	Bernesga Mb.	83.41	44.97	65.06	193.44	110.03

Sample	Formation	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al2O3*5	10Al2O3
Sena 76	Bernesga Mb.	109.10	218.20	10.91	3.78	5.07	36.71	14.58	158.58	317.15
Sena 77	Bernesga Mb.	112.60	225.20	8.58	3.91	5.24	38.00	7.96	162.68	325.35
Sena 78	Bernesga Mb.	95.97	191.93	6.21	3.28	4.39	34.47	5.61	145.38	290.75
Sena 79	Bernesga Mb.	104.27	208.53	6.68	3.61	4.83	34.27	5.84	144.00	288.00

Sample	Formation	15Al2O3	Al2O3/10	K2O *5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	Ti Cal (ppm)	200TiO2	300TiO2	K2O/Al2O3
Sena 76	Bernesga Mb.	475.73	3.17	18.44	< D.L.	< D.L.	59985.19	10.19	13.12	6319.55	210.86	316.29	0.12
Sena 77	Bernesga Mb.	488.03	3.25	20.29	< D.L.	10.14	5565.32	4.86	6.25	7105.37	237.08	355.62	0.12
Sena 78	Bernesga Mb.	436.13	2.91	20.02	< D.L.	< D.L.	798.15	3.93	5.05	7002.19	233.64	350.46	0.14
Sena 79	Bernesga Mb.	432.00	2.88	20.33	< D.L.	< D.L.	2729.40	4.08	5.25	6883.99	229.69	344.54	0.14

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
Sena 76	Bernesga Mb.	-0.93	< D.L.	1.16	0.17	0.35	2.83	-0.45	24.34
Sena 77	Bernesga Mb.	-0.90	0.03	0.84	0.20	0.35	2.89	-0.46	23.16
Sena 78	Bernesga Mb.	-0.86	< D.L.	0.75	0.25	0.35	2.88	-0.46	20.92
Sena 79	Bernesga Mb.	-0.85	< D.L.	0.77	0.25	0.35	2.89	-0.46	20.46

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
Sena 76	Bernesga Mb.	1.30	4.99	14.58	1.49	0.17	0.67	0.46	35.42	0.00
Sena 77	Bernesga Mb.	1.40	5.46	7.96	1.57	0.20	0.64	0.21	41.02	0.00
Sena 78	Bernesga Mb.	1.39	5.39	5.61	1.80	0.25	0.56	0.19	42.67	0.01
Sena 79	Bernesga Mb.	1.41	5.47	5.84	1.77	0.25	0.56	0.20	41.76	0.01

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Zr/Sc	Cr/Th	Th/Sc
Sena 76	Bernesga Mb.	30.08	0.06	372.53	0.97	246.39	0.83	0.74	1.37	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.	< D.L.
Sena 77	Bernesga Mb.	27.45	0.06	347.55	< D.L.	183.60	0.32	0.69	1.29	< D.L.	< D.L.	2.68	< D.L.	14.34	< D.L.
Sena 78	Bernesga Mb.	24.89	0.05	326.18	< D.L.	187.27	0.36	0.67	1.18	< D.L.	< D.L.	3.39	< D.L.	11.21	< D.L.
Sena 79	Bernesga Mb.	25.08	0.06	344.41	< D.L.	193.65	0.37	0.67	1.26	< D.L.	10.60	3.75	6.03	10.13	0.56

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
Sena 76	Bernesga Mb.	0.84	1.19	0.02	6.45	1.13	5.61	< D.L.	0.54	1.86
Sena 77	Bernesga Mb.	0.80	1.25	0.02	6.50	1.15	3.12	< D.L.	0.54	1.87
Sena 78	Bernesga Mb.	0.80	1.25	0.02	6.36	1.20	2.56	< D.L.	0.56	1.77
Sena 79	Bernesga Mb.	0.72	1.39	0.02	6.10	1.07	2.76	< D.L.	0.53	1.88

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
Sena 76	Bernesga Mb.	2.66	0.65	10.70	2.89	< D.L.	2.80	8.91	5.76
Sena 77	Bernesga Mb.	1.75	0.65	12.50	< D.L.	< D.L.	1.68	3.97	6.69
Sena 78	Bernesga Mb.	1.41	0.62	13.14	< D.L.	< D.L.	1.82	4.77	7.40
Sena 79	Bernesga Mb.	1.43	0.68	14.05	< D.L.	< D.L.	1.98	5.23	7.47

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
Sena 76	Bernesga Mb.	< D.L.	10.42	72.16	43.65	6.52	0.55	49.31	< D.L.
Sena 77	Bernesga Mb.	< D.L.	10.40	25.86	30.14	7.71	0.76	17.67	< D.L.
Sena 78	Bernesga Mb.	< D.L.	11.58	29.15	28.45	8.88	0.73	19.92	< D.L.
Sena 79	Bernesga Mb.	< D.L.	11.75	28.90	30.80	7.99	0.73	19.75	< D.L.

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
Sena 76	Bernesga Mb.	< D.L.	< D.L.	1.37	10.03	< D.L.	3.95	0.60	4.47	0.01	0.04	0.41
Sena 77	Bernesga Mb.	0.71	1.40	1.67	11.80	< D.L.	1.71	0.23	3.01	0.01	0.04	0.39
Sena 78	Bernesga Mb.	1.06	0.94	1.73	14.24	< D.L.	1.40	0.15	2.16	0.01	< D.L.	< D.L.
Sena 79	Bernesga Mb.	1.08	0.93	1.63	11.69	< D.L.	1.44	0.16	2.18	0.01	< D.L.	< D.L.

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
Sena 76	Bernesga Mb.	823.05	0.06	0.08	10.91	6.42	10.94	389227.71	1965.83	-5.46
Sena 77	Bernesga Mb.	771.93	0.06	0.08	8.58	7.22	13.28	411236.05	973.67	-22.72
Sena 78	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.21	7.12	13.66	398104.62	1014.10	-21.58
Sena 79	Bernesga Mb.	< D.L.	< D.L.	< D.L.	6.68	7.00	12.19	391333.58	1098.93	-20.79

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
Sena 76	Bernesga Mb.	-2.55	17.13	6.65	-0.62	95.56	96.05
Sena 77	Bernesga Mb.	-10.62	17.57	-1.18	0.90	95.30	95.86
Sena 78	Bernesga Mb.	-10.09	15.70	-1.65	0.86	94.75	95.44
Sena 79	Bernesga Mb.	-9.71	15.55	-1.36	0.88	94.62	95.34

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
Sena 76	Bernesga Mb.	86.40	15.53	-1.99	15.56
Sena 77	Bernesga Mb.	85.62	8.08	-0.56	8.11
Sena 78	Bernesga Mb.	84.35	6.58	0.60	6.61
Sena 79	Bernesga Mb.	84.03	6.55	0.61	6.58

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
Sena 76	Bernesga Mb.	-0.63	3.79	-62.94	0.68
Sena 77	Bernesga Mb.	0.91	4.62	-49.52	0.82
Sena 78	Bernesga Mb.	2.05	4.52	-46.32	0.84
Sena 79	Bernesga Mb.	2.08	4.58	-46.31	0.83

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
Sena 76	Bernesga Mb.	13.83	0.66	4.00	4.00	1.00	< D.L.	9.00
Sena 77	Bernesga Mb.	5.86	0.45	4.00	4.00	1.00	< D.L.	9.00
Sena 78	Bernesga Mb.	4.81	0.42	4.00	4.00	1.00	< D.L.	9.00
Sena 79	Bernesga Mb.	5.08	0.43	4.00	4.00	1.00	< D.L.	9.00

5. Geochemical ratios and proxies – Villanueva section

5.1 Villa 1 - 25

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
Villa 1	Bernesga Mb.	75.35	38.06	47.25	160.66	85.31
Villa 2	Bernesga Mb.	55.91	30.09	46.08	132.08	76.17
Villa 3	Bernesga Mb.	70.13	31.10	45.35	146.58	76.45
Villa 4	Bernesga Mb.	68.81	38.55	47.81	155.16	86.36
Villa 5	Bernesga Mb.	73.46	37.73	52.72	163.91	90.45
Villa 6	Bernesga Mb.	73.01	39.01	50.37	162.39	89.38
Villa 7	Bernesga Mb.	76.18	32.44	48.19	156.80	80.63
Villa 8	Bernesga Mb.	69.11	36.31	46.24	151.65	82.55
Villa 9	Bernesga Mb.	73.62	38.04	49.46	161.13	87.50
Villa 10	Bernesga Mb.	91.85	36.04	51.87	179.76	87.91
Villa 11	Bernesga Mb.	63.86	36.54	47.55	147.95	84.09
Villa 12	Bernesga Mb.	53.19	35.81	48.51	137.51	84.33
Villa 13	Bernesga Mb.	63.76	36.91	48.70	149.37	85.61
Villa 14	Bernesga Mb.	59.67	31.82	48.17	139.67	79.99
Villa 15	Bernesga Mb.	72.75	33.27	48.13	154.16	81.41
Villa 16	Bernesga Mb.	54.66	35.69	47.01	137.36	82.70
Villa 17	Bernesga Mb.	69.78	32.22	43.02	145.01	75.23
Villa 18	Bernesga Mb.	87.84	21.88	43.21	152.93	65.09
Villa 19	Bernesga Mb.	79.63	33.54	42.16	155.33	75.70
Villa 20	Bernesga Mb.	104.32	29.10	49.75	183.17	78.85
Villa 21	Bernesga Mb.	81.77	32.71	42.46	156.94	75.17
Villa 22	Bernesga Mb.	105.70	31.21	43.95	180.86	75.16
Villa 23	Bernesga Mb.	80.28	29.96	41.99	152.24	71.96
Villa 24	Bernesga Mb.	68.42	24.31	39.05	131.78	63.36
Villa 25	Bernesga Mb.	84.76	28.09	40.04	152.89	68.13

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
Villa 1	Bernesga Mb.	90.11	59.93	71.06	221.10	130.99
Villa 2	Bernesga Mb.	66.85	47.39	69.29	183.53	116.68
Villa 3	Bernesga Mb.	83.87	48.97	68.19	201.03	117.17
Villa 4	Bernesga Mb.	82.28	60.71	71.89	214.88	132.60
Villa 5	Bernesga Mb.	87.84	59.41	79.28	226.53	138.69
Villa 6	Bernesga Mb.	87.31	61.43	75.75	224.48	137.17
Villa 7	Bernesga Mb.	91.09	51.08	72.47	214.64	123.55
Villa 8	Bernesga Mb.	82.64	57.17	69.53	209.35	126.71
Villa 9	Bernesga Mb.	88.04	59.91	74.38	222.33	134.29
Villa 10	Bernesga Mb.	109.84	56.76	78.00	244.60	134.76
Villa 11	Bernesga Mb.	76.36	57.55	71.50	205.41	129.05
Villa 12	Bernesga Mb.	63.60	56.40	72.95	192.95	129.35
Villa 13	Bernesga Mb.	76.24	58.12	73.24	207.60	131.36
Villa 14	Bernesga Mb.	71.36	50.11	72.44	193.91	122.55
Villa 15	Bernesga Mb.	87.00	52.40	72.38	211.78	124.78
Villa 16	Bernesga Mb.	65.36	56.20	70.70	192.26	126.90
Villa 17	Bernesga Mb.	83.44	50.73	64.68	198.86	115.42
Villa 18	Bernesga Mb.	105.04	34.45	64.98	204.48	99.44
Villa 19	Bernesga Mb.	95.23	52.81	63.40	211.44	116.21
Villa 20	Bernesga Mb.	124.75	45.83	74.82	245.39	120.65
Villa 21	Bernesga Mb.	97.79	51.51	63.86	213.15	115.36
Villa 22	Bernesga Mb.	126.40	49.15	66.09	241.64	115.24
Villa 23	Bernesga Mb.	96.00	47.19	63.15	206.34	110.34
Villa 24	Bernesga Mb.	81.81	38.28	58.72	178.82	97.00
Villa 25	Bernesga Mb.	101.36	44.24	60.21	205.81	104.45

Sample	Formation	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al2O3*5	10Al2O3
Villa 1	Bernesga Mb.	112.63	225.27	6.27	3.91	5.24	36.00	6.58	150.23	300.46
Villa 2	Bernesga Mb.	83.57	167.13	4.41	2.73	3.66	35.04	7.17	146.13	292.26
Villa 3	Bernesga Mb.	104.83	209.67	6.40	3.63	4.86	35.37	7.18	148.22	296.44
Villa 4	Bernesga Mb.	102.85	205.70	5.23	3.55	4.76	34.51	6.56	142.47	284.93
Villa 5	Bernesga Mb.	109.80	219.60	6.03	3.81	5.11	38.39	6.73	158.89	317.77
Villa 6	Bernesga Mb.	109.13	218.27	5.79	3.79	5.07	35.94	6.48	148.05	296.11
Villa 7	Bernesga Mb.	113.87	227.73	7.13	3.95	5.30	37.10	6.97	155.16	310.32
Villa 8	Bernesga Mb.	103.30	206.60	5.57	3.57	4.78	36.46	6.80	153.14	306.29
Villa 9	Bernesga Mb.	110.05	220.10	6.01	3.82	5.12	35.63	6.54	147.05	294.10
Villa 10	Bernesga Mb.	137.30	274.60	9.00	4.70	6.29	35.25	6.48	143.72	287.44
Villa 11	Bernesga Mb.	95.45	190.90	4.75	3.25	4.36	37.65	6.98	158.30	316.59
Villa 12	Bernesga Mb.	79.50	159.00	3.25	2.53	3.39	35.57	6.84	147.35	294.70
Villa 13	Bernesga Mb.	95.30	190.60	4.69	3.25	4.35	36.79	6.70	153.32	306.64
Villa 14	Bernesga Mb.	89.20	178.40	4.74	2.99	4.00	38.20	7.04	160.71	321.42
Villa 15	Bernesga Mb.	108.75	217.50	6.51	3.77	5.05	35.73	6.79	148.35	296.69
Villa 16	Bernesga Mb.	81.70	163.40	3.49	2.64	3.54	35.78	6.56	149.26	298.52
Villa 17	Bernesga Mb.	104.30	208.60	6.20	3.61	4.83	34.45	6.81	145.05	290.11
Villa 18	Bernesga Mb.	131.30	262.60	10.26	4.52	6.06	38.22	8.32	163.76	327.53
Villa 19	Bernesga Mb.	119.03	238.07	7.50	4.13	5.53	34.52	6.82	145.90	291.81
Villa 20	Bernesga Mb.	155.93	311.87	11.77	5.20	6.97	37.74	7.10	157.44	314.88
Villa 21	Bernesga Mb.	122.23	244.47	7.93	4.24	5.68	37.62	7.06	161.23	322.47
Villa 22	Bernesga Mb.	158.00	316.00	11.70	5.25	7.04	38.93	7.27	166.86	333.72
Villa 23	Bernesga Mb.	120.00	240.00	8.07	4.16	5.58	36.04	7.39	153.60	307.20
Villa 24	Bernesga Mb.	102.27	204.53	7.04	3.53	4.73	35.04	7.41	150.34	300.69
Villa 25	Bernesga Mb.	126.70	253.40	8.98	4.38	5.87	35.51	7.90	152.12	304.25

Sample	Formation	15Al2O3	Al2O3/10	K2O *5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	200TiO2	300TiO2	K2O/Al2O3
Villa 1	Bernesga Mb.	450.68	3.00	22.20	0.00	14.21	-3699.81	3.61	4.64	234.32	351.48	0.15
Villa 2	Bernesga Mb.	438.39	2.92	21.65	0.00	13.55	1983.19	4.07	5.23	235.36	353.04	0.15
Villa 3	Bernesga Mb.	444.66	2.96	21.31	0.00	13.28	1736.19	4.10	5.27	235.57	353.36	0.14
Villa 4	Bernesga Mb.	427.40	2.85	22.47	0.00	13.68	-1396.77	3.63	4.67	234.04	351.06	0.16
Villa 5	Bernesga Mb.	476.66	3.18	24.78	0.00	14.59	-5154.18	3.69	4.75	239.34	359.01	0.16
Villa 6	Bernesga Mb.	444.16	2.96	23.67	0.00	12.12	-2300.57	3.69	4.74	249.58	374.38	0.16
Villa 7	Bernesga Mb.	465.48	3.10	22.65	0.00	12.41	-990.47	4.01	5.15	233.85	350.77	0.15
Villa 8	Bernesga Mb.	459.43	3.06	21.73	0.00	13.69	-2507.83	3.80	4.89	237.43	356.14	0.14
Villa 9	Bernesga Mb.	441.15	2.94	23.24	0.00	12.25	-1771.41	3.71	4.78	237.57	356.36	0.16
Villa 10	Bernesga Mb.	431.16	2.87	24.37	0.00	12.55	-1494.38	3.65	4.70	232.92	349.38	0.17
Villa 11	Bernesga Mb.	474.89	3.17	22.34	0.00	14.08	-2942.29	3.89	5.01	235.89	353.83	0.14
Villa 12	Bernesga Mb.	442.05	2.95	22.80	0.00	12.67	7.10	3.90	5.02	226.49	339.74	0.15
Villa 13	Bernesga Mb.	459.96	3.07	22.89	0.00	15.32	-4399.76	3.62	4.65	229.73	344.59	0.15
Villa 14	Bernesga Mb.	482.13	3.21	22.64	0.00	14.05	-3112.23	3.94	5.07	233.77	350.65	0.14
Villa 15	Bernesga Mb.	445.04	2.97	22.62	0.00	14.00	-1557.08	3.77	4.85	227.66	341.49	0.15
Villa 16	Bernesga Mb.	447.78	2.99	22.09	0.00	14.66	-3854.84	3.56	4.59	232.98	349.47	0.15
Villa 17	Bernesga Mb.	435.16	2.90	20.21	0.00	12.42	584.63	3.90	5.01	235.70	353.55	0.14
Villa 18	Bernesga Mb.	491.29	3.28	20.31	0.00	14.30	4863.62	4.82	6.20	235.10	352.65	0.12
Villa 19	Bernesga Mb.	437.71	2.92	19.81	0.00	13.49	-330.18	3.83	4.92	233.27	349.91	0.14
Villa 20	Bernesga Mb.	472.32	3.15	23.38	0.00	14.90	-2433.57	3.92	5.05	232.78	349.17	0.15
Villa 21	Bernesga Mb.	483.70	3.22	19.95	0.00	13.62	-2785.06	3.99	5.13	239.45	359.18	0.12
Villa 22	Bernesga Mb.	500.58	3.34	20.65	0.00	16.95	-5197.54	3.90	5.01	232.78	349.17	0.12
Villa 23	Bernesga Mb.	460.80	3.07	19.73	0.00	15.04	505.37	4.12	5.29	236.19	354.28	0.13
Villa 24	Bernesga Mb.	451.03	3.01	18.35	0.00	13.14	2864.39	4.26	5.49	231.95	347.92	0.12
Villa 25	Bernesga Mb.	456.37	3.04	18.82	0.00	14.62	4762.34	4.50	5.79	234.58	351.86	0.12

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
Villa 1	Bernesga Mb.	-0.83	0.05	0.71	0.23	0.34	2.94	-0.47	19.88
Villa 2	Bernesga Mb.	-0.83	0.05	0.76	0.23	0.34	2.93	-0.47	19.74
Villa 3	Bernesga Mb.	-0.84	0.04	0.77	0.23	0.34	2.92	-0.46	20.28
Villa 4	Bernesga Mb.	-0.80	0.05	0.72	0.24	0.34	2.95	-0.47	18.68
Villa 5	Bernesga Mb.	-0.81	0.05	0.72	0.22	0.33	3.00	-0.48	19.22
Villa 6	Bernesga Mb.	-0.80	0.04	0.72	0.21	0.34	2.97	-0.47	18.60
Villa 7	Bernesga Mb.	-0.84	0.04	0.76	0.23	0.34	2.95	-0.47	20.21
Villa 8	Bernesga Mb.	-0.85	0.04	0.74	0.22	0.34	2.93	-0.47	20.63
Villa 9	Bernesga Mb.	-0.80	0.04	0.73	0.23	0.34	2.96	-0.47	18.75
Villa 10	Bernesga Mb.	-0.77	0.04	0.72	0.25	0.33	2.99	-0.48	17.62
Villa 11	Bernesga Mb.	-0.85	0.04	0.75	0.22	0.34	2.94	-0.47	20.84
Villa 12	Bernesga Mb.	-0.81	0.04	0.75	0.23	0.34	2.95	-0.47	19.09
Villa 13	Bernesga Mb.	-0.83	0.05	0.71	0.22	0.34	2.96	-0.47	19.80
Villa 14	Bernesga Mb.	-0.85	0.04	0.75	0.21	0.34	2.95	-0.47	20.94
Villa 15	Bernesga Mb.	-0.82	0.05	0.73	0.23	0.34	2.95	-0.47	19.34
Villa 16	Bernesga Mb.	-0.83	0.05	0.71	0.22	0.34	2.94	-0.47	19.84
Villa 17	Bernesga Mb.	-0.86	0.04	0.75	0.23	0.35	2.89	-0.46	20.71
Villa 18	Bernesga Mb.	-0.91	0.04	0.84	0.18	0.35	2.89	-0.46	23.29
Villa 19	Bernesga Mb.	-0.87	0.05	0.74	0.23	0.35	2.87	-0.46	21.17
Villa 20	Bernesga Mb.	-0.83	0.05	0.75	0.21	0.34	2.97	-0.47	19.98
Villa 21	Bernesga Mb.	-0.91	0.04	0.76	0.19	0.35	2.88	-0.46	23.26
Villa 22	Bernesga Mb.	-0.91	0.05	0.75	0.18	0.35	2.90	-0.46	23.41
Villa 23	Bernesga Mb.	-0.89	0.05	0.77	0.22	0.35	2.87	-0.46	22.35
Villa 24	Bernesga Mb.	-0.91	0.04	0.79	0.21	0.35	2.83	-0.45	23.17
Villa 25	Bernesga Mb.	-0.91	0.05	0.81	0.21	0.35	2.84	-0.45	22.99

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
Villa 1	Bernesga Mb.	1.51	5.95	6.58	1.69	0.23	0.59	0.17	40.70	0.00
Villa 2	Bernesga Mb.	1.48	5.81	7.17	1.70	0.23	0.59	0.20	41.12	0.01
Villa 3	Bernesga Mb.	1.46	5.72	7.18	1.71	0.23	0.59	0.20	42.19	0.01
Villa 4	Bernesga Mb.	1.53	6.02	6.56	1.75	0.24	0.57	0.18	42.71	0.01
Villa 5	Bernesga Mb.	1.65	6.61	6.73	1.65	0.22	0.61	0.17	39.47	0.00
Villa 6	Bernesga Mb.	1.59	6.33	6.48	1.63	0.21	0.62	0.18	42.26	0.01
Villa 7	Bernesga Mb.	1.54	6.06	6.97	1.69	0.23	0.59	0.18	40.52	0.00
Villa 8	Bernesga Mb.	1.48	5.83	6.80	1.64	0.22	0.61	0.18	42.12	0.01
Villa 9	Bernesga Mb.	1.57	6.22	6.54	1.70	0.23	0.59	0.18	42.28	0.01
Villa 10	Bernesga Mb.	1.63	6.51	6.48	1.78	0.25	0.56	0.18	40.14	0.00
Villa 11	Bernesga Mb.	1.52	5.99	6.98	1.64	0.22	0.61	0.18	43.08	0.01
Villa 12	Bernesga Mb.	1.54	6.10	6.84	1.69	0.23	0.59	0.19	41.38	0.01
Villa 13	Bernesga Mb.	1.55	6.13	6.70	1.66	0.22	0.60	0.17	42.13	0.01
Villa 14	Bernesga Mb.	1.54	6.06	7.04	1.61	0.21	0.62	0.18	41.86	0.01
Villa 15	Bernesga Mb.	1.53	6.06	6.79	1.71	0.23	0.58	0.18	42.53	0.01
Villa 16	Bernesga Mb.	1.51	5.92	6.56	1.67	0.22	0.60	0.17	42.07	0.01
Villa 17	Bernesga Mb.	1.40	5.44	6.81	1.70	0.23	0.59	0.19	42.95	0.01
Villa 18	Bernesga Mb.	1.41	5.47	8.32	1.52	0.18	0.66	0.21	41.26	0.01
Villa 19	Bernesga Mb.	1.38	5.34	6.82	1.71	0.23	0.58	0.19	43.28	0.01
Villa 20	Bernesga Mb.	1.58	6.25	7.10	1.63	0.21	0.62	0.18	39.67	0.00
Villa 21	Bernesga Mb.	1.39	5.38	7.06	1.56	0.19	0.64	0.18	42.74	0.01
Villa 22	Bernesga Mb.	1.43	5.56	7.27	1.52	0.18	0.66	0.17	45.00	0.01
Villa 23	Bernesga Mb.	1.37	5.32	7.39	1.66	0.22	0.60	0.19	42.43	0.01
Villa 24	Bernesga Mb.	1.30	4.97	7.41	1.62	0.21	0.62	0.20	43.66	0.01
Villa 25	Bernesga Mb.	1.32	5.09	7.90	1.63	0.21	0.61	0.21	43.30	0.01

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Ti Cal (ppm)	Zr/Sc	Cr/Th	Th/Sc
Villa 1	Bernesga Mb.	25.64	0.06	355.87	< D.L.	214.18	0.33	0.73	1.39	< D.L.	10.94	4.99	7022.68	5.60	8.83	0.65
Villa 2	Bernesga Mb.	24.84	0.06	363.47	< D.L.	205.18	0.39	0.65	1.30	< D.L.	< D.L.	3.95	7053.76	< D.L.	9.78	< D.L.
Villa 3	Bernesga Mb.	25.17	0.06	351.93	1.13	193.19	0.26	0.69	1.49	67.22	< D.L.	4.08	7060.16	< D.L.	10.15	< D.L.
Villa 4	Bernesga Mb.	24.35	0.06	342.42	< D.L.	166.43	0.25	0.52	1.41	62.71	< D.L.	5.06	7014.28	< D.L.	6.56	< D.L.
Villa 5	Bernesga Mb.	26.55	0.06	346.87	< D.L.	202.43	0.23	0.69	1.50	56.78	13.43	4.95	7173.09	6.29	9.03	0.68
Villa 6	Bernesga Mb.	23.73	0.05	321.96	< D.L.	197.10	0.19	0.68	1.60	84.99	14.73	5.12	7480.16	6.63	8.80	0.71
Villa 7	Bernesga Mb.	26.54	0.06	347.31	< D.L.	194.10	0.31	0.63	1.40	< D.L.	< D.L.	4.26	7008.48	< D.L.	9.04	< D.L.
Villa 8	Bernesga Mb.	25.80	0.06	358.05	< D.L.	185.20	0.23	0.71	1.33	< D.L.	< D.L.	4.76	7115.78	< D.L.	9.06	< D.L.
Villa 9	Bernesga Mb.	24.76	0.06	342.60	< D.L.	214.77	0.34	0.66	1.29	61.05	< D.L.	4.99	7120.21	< D.L.	8.67	< D.L.
Villa 10	Bernesga Mb.	24.68	0.05	327.09	< D.L.	202.23	0.23	0.65	1.67	60.81	< D.L.	4.73	6980.64	< D.L.	8.98	< D.L.
Villa 11	Bernesga Mb.	26.84	0.06	364.29	< D.L.	194.34	0.25	0.66	1.43	66.28	12.86	4.80	7069.64	6.16	8.78	0.67
Villa 12	Bernesga Mb.	26.02	0.06	367.55	< D.L.	185.86	0.26	0.64	1.32	< D.L.	< D.L.	4.70	6788.05	< D.L.	8.60	< D.L.
Villa 13	Bernesga Mb.	26.70	0.06	361.22	< D.L.	211.28	0.38	0.67	1.14	< D.L.	< D.L.	4.84	6885.06	< D.L.	8.83	< D.L.
Villa 14	Bernesga Mb.	27.50	0.06	349.30	< D.L.	211.85	0.37	0.64	1.29	57.01	< D.L.	4.18	7006.12	< D.L.	9.69	< D.L.
Villa 15	Bernesga Mb.	26.06	0.06	344.02	0.84	195.09	0.31	0.66	1.17	< D.L.	< D.L.	4.37	6823.09	< D.L.	9.64	< D.L.
Villa 16	Bernesga Mb.	25.63	0.06	346.02	< D.L.	192.86	0.26	0.67	1.39	< D.L.	9.19	4.68	6982.53	4.28	8.93	0.50
Villa 17	Bernesga Mb.	24.62	0.06	349.75	0.80	222.75	0.35	0.73	1.59	< D.L.	13.89	4.23	7064.06	6.26	9.97	0.64
Villa 18	Bernesga Mb.	27.86	0.06	373.62	0.99	201.30	0.39	0.68	1.34	< D.L.	< D.L.	2.87	7045.95	< D.L.	13.15	< D.L.
Villa 19	Bernesga Mb.	25.02	0.06	360.94	1.01	195.64	0.29	0.68	1.57	< D.L.	< D.L.	4.40	6991.32	< D.L.	8.86	< D.L.
Villa 20	Bernesga Mb.	27.05	0.06	358.00	0.90	207.44	0.34	0.65	1.39	< D.L.	< D.L.	3.82	6976.51	< D.L.	10.47	< D.L.
Villa 21	Bernesga Mb.	26.93	0.06	380.47	0.73	203.88	0.33	0.72	1.46	< D.L.	10.44	4.29	7176.45	4.49	9.48	0.54
Villa 22	Bernesga Mb.	28.67	0.06	387.79	0.59	207.79	0.31	0.69	1.41	< D.L.	< D.L.	4.10	6976.47	< D.L.	10.38	< D.L.
Villa 23	Bernesga Mb.	26.01	0.06	341.39	0.70	206.38	0.33	0.75	1.45	54.87	< D.L.	3.93	7078.70	< D.L.	10.70	< D.L.
Villa 24	Bernesga Mb.	25.93	0.06	386.57	0.82	208.05	0.43	0.74	1.30	< D.L.	< D.L.	3.19	6951.61	< D.L.	12.38	< D.L.
Villa 25	Bernesga Mb.	25.94	0.06	365.38	0.59	195.72	0.37	0.68	1.38	< D.L.	< D.L.	3.69	7030.33	< D.L.	10.08	< D.L.

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
Villa 1	Bernesga Mb.	0.71	1.41	0.02	6.50	0.97	2.09	< D.L.	0.53	1.89
Villa 2	Bernesga Mb.	0.69	1.44	0.02	6.36	1.06	2.35	< D.L.	0.50	2.00
Villa 3	Bernesga Mb.	0.71	1.40	0.02	6.40	1.03	2.22	< D.L.	0.47	2.15
Villa 4	Bernesga Mb.	0.69	1.44	0.02	6.50	1.34	2.24	0.64	0.37	2.71
Villa 5	Bernesga Mb.	0.70	1.43	0.02	6.63	1.02	2.19	< D.L.	0.46	2.18
Villa 6	Bernesga Mb.	0.72	1.39	0.02	6.21	1.07	1.76	< D.L.	0.42	2.37
Villa 7	Bernesga Mb.	0.69	1.44	0.02	6.31	1.10	2.46	< D.L.	0.45	2.23
Villa 8	Bernesga Mb.	0.71	1.42	0.02	6.50	1.00	1.72	< D.L.	0.53	1.87
Villa 9	Bernesga Mb.	0.66	1.53	0.02	6.20	0.99	2.18	< D.L.	0.51	1.95
Villa 10	Bernesga Mb.	0.69	1.44	0.02	6.37	1.07	2.28	< D.L.	0.39	2.56
Villa 11	Bernesga Mb.	0.68	1.46	0.02	6.78	1.04	2.24	< D.L.	0.46	2.17
Villa 12	Bernesga Mb.	0.64	1.57	0.02	6.50	0.99	2.13	0.60	0.49	2.05
Villa 13	Bernesga Mb.	0.64	1.57	0.02	6.45	0.96	1.97	< D.L.	0.58	1.72
Villa 14	Bernesga Mb.	0.64	1.57	0.02	6.00	0.99	2.17	< D.L.	0.50	2.01
Villa 15	Bernesga Mb.	0.61	1.63	0.02	5.96	0.94	1.69	< D.L.	0.56	1.78
Villa 16	Bernesga Mb.	0.65	1.55	0.02	5.95	0.96	1.45	< D.L.	0.49	2.06
Villa 17	Bernesga Mb.	0.72	1.39	0.02	6.17	0.98	1.99	< D.L.	0.46	2.19
Villa 18	Bernesga Mb.	0.67	1.49	0.02	5.98	1.00	2.86	< D.L.	0.50	1.99
Villa 19	Bernesga Mb.	0.70	1.42	0.02	6.22	1.03	2.09	< D.L.	0.43	2.30
Villa 20	Bernesga Mb.	0.64	1.57	0.02	6.04	0.98	1.99	< D.L.	0.46	2.15
Villa 21	Bernesga Mb.	0.63	1.59	0.01	5.68	0.88	1.68	< D.L.	0.49	2.04
Villa 22	Bernesga Mb.	0.58	1.72	0.02	5.99	0.85	2.03	< D.L.	0.49	2.05
Villa 23	Bernesga Mb.	0.73	1.36	0.02	5.93	0.97	2.48	< D.L.	0.52	1.93
Villa 24	Bernesga Mb.	0.65	1.53	0.02	5.82	0.88	2.24	< D.L.	0.57	1.75
Villa 25	Bernesga Mb.	0.67	1.49	0.02	5.68	0.98	2.30	< D.L.	0.49	2.02

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
Villa 1	Bernesga Mb.	1.15	0.71	15.75	0.00	2.23	1.56	5.15	8.32
Villa 2	Bernesga Mb.	1.54	0.54	14.97	0.00	0.00	2.36	5.77	7.49
Villa 3	Bernesga Mb.	1.87	0.67	17.03	2.23	0.00	2.52	4.39	7.92
Villa 4	Bernesga Mb.	1.62	0.68	17.91	0.00	4.57	2.25	4.43	6.60
Villa 5	Bernesga Mb.	1.54	0.65	17.42	0.00	0.00	2.50	4.06	7.98
Villa 6	Bernesga Mb.	1.65	0.70	20.45	0.00	2.49	3.45	3.95	8.62
Villa 7	Bernesga Mb.	1.57	0.69	15.67	0.00	2.03	2.55	4.79	7.03
Villa 8	Bernesga Mb.	1.28	0.64	14.97	0.00	2.19	2.17	3.43	7.99
Villa 9	Bernesga Mb.	1.40	0.71	16.28	0.00	2.40	2.58	5.45	8.34
Villa 10	Bernesga Mb.	1.78	0.90	21.43	0.00	3.60	2.87	4.91	8.38
Villa 11	Bernesga Mb.	1.51	0.57	16.38	0.00	2.57	2.72	4.06	7.54
Villa 12	Bernesga Mb.	1.37	0.51	15.97	0.00	2.14	2.27	4.14	7.78
Villa 13	Bernesga Mb.	1.16	0.59	13.58	0.00	0.00	1.65	5.11	7.91
Villa 14	Bernesga Mb.	1.65	0.52	14.34	0.00	0.00	2.17	5.32	7.14
Villa 15	Bernesga Mb.	1.58	0.69	14.35	2.34	3.39	1.96	4.38	8.04
Villa 16	Bernesga Mb.	1.20	0.52	16.34	0.00	2.19	1.78	4.27	7.94
Villa 17	Bernesga Mb.	1.48	0.68	18.01	2.28	2.35	1.82	6.27	8.24
Villa 18	Bernesga Mb.	1.57	0.76	12.98	2.23	0.00	2.20	5.08	6.53
Villa 19	Bernesga Mb.	1.39	0.77	17.41	2.28	2.39	2.31	5.10	7.57
Villa 20	Bernesga Mb.	1.28	0.94	15.49	2.34	0.00	2.11	5.25	7.20
Villa 21	Bernesga Mb.	1.57	0.72	14.61	2.34	0.00	1.71	4.79	7.15
Villa 22	Bernesga Mb.	1.09	0.89	14.81	2.60	1.80	1.53	4.54	7.22
Villa 23	Bernesga Mb.	1.75	0.74	14.96	2.51	0.00	1.75	4.93	7.76
Villa 24	Bernesga Mb.	1.48	0.64	13.05	3.06	0.00	2.51	5.63	7.44
Villa 25	Bernesga Mb.	1.52	0.79	14.00	3.16	0.00	1.87	5.23	6.92

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
Villa 1	Bernesga Mb.	0.00	11.40	28.73	23.72	8.06	0.75	19.63	0.00
Villa 2	Bernesga Mb.	0.00	11.61	29.12	27.07	7.98	0.72	19.90	0.00
Villa 3	Bernesga Mb.	0.25	11.51	28.88	25.48	8.19	0.80	19.74	0.13
Villa 4	Bernesga Mb.	0.29	12.06	29.79	28.56	8.82	0.80	20.36	0.15
Villa 5	Bernesga Mb.	0.31	10.78	26.56	25.48	8.15	0.81	18.15	0.16
Villa 6	Bernesga Mb.	0.24	11.72	28.66	22.48	9.21	0.84	19.58	0.13
Villa 7	Bernesga Mb.	0.00	10.99	27.22	27.52	7.75	0.77	18.60	0.00
Villa 8	Bernesga Mb.	0.00	11.13	27.48	19.37	7.97	0.81	18.78	0.00
Villa 9	Bernesga Mb.	0.27	11.70	29.67	27.50	8.27	0.75	20.28	0.14
Villa 10	Bernesga Mb.	0.35	11.92	29.52	29.36	8.93	0.81	20.18	0.19
Villa 11	Bernesga Mb.	0.25	10.75	26.81	25.73	7.85	0.80	18.32	0.13
Villa 12	Bernesga Mb.	0.00	11.52	28.87	25.72	7.69	0.79	19.73	0.00
Villa 13	Bernesga Mb.	0.00	11.09	28.61	23.39	7.58	0.73	19.55	0.00
Villa 14	Bernesga Mb.	0.25	10.60	26.40	24.20	7.07	0.73	18.04	0.13
Villa 15	Bernesga Mb.	0.00	11.49	29.31	20.65	7.52	0.77	20.03	0.00
Villa 16	Bernesga Mb.	0.00	11.42	27.75	17.07	7.60	0.79	18.96	0.00
Villa 17	Bernesga Mb.	0.00	11.75	29.90	22.55	8.11	0.74	20.43	0.00
Villa 18	Bernesga Mb.	0.00	10.24	25.21	27.67	6.51	0.72	17.23	0.00
Villa 19	Bernesga Mb.	0.00	11.55	29.36	23.26	7.80	0.77	20.07	0.00
Villa 20	Bernesga Mb.	0.00	10.64	26.58	22.18	7.07	0.75	18.16	0.00
Villa 21	Bernesga Mb.	0.00	10.52	26.34	16.79	6.28	0.75	18.00	0.00
Villa 22	Bernesga Mb.	0.00	10.08	25.63	21.39	6.11	0.77	17.52	0.00
Villa 23	Bernesga Mb.	0.27	11.00	28.21	25.57	7.57	0.75	19.28	0.14
Villa 24	Bernesga Mb.	0.00	11.19	28.76	22.55	6.58	0.70	19.66	0.00
Villa 25	Bernesga Mb.	0.00	10.97	27.80	23.32	6.79	0.73	19.00	0.00

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
Villa 1	Bernesga Mb.	1.33	0.75	1.70	11.38	0.32	1.16	0.06	1.84	0.01	0.00	0.00
Villa 2	Bernesga Mb.	1.42	0.71	1.68	14.76	< D.L.	1.34	0.13	2.38	0.01	0.00	0.00
Villa 3	Bernesga Mb.	1.17	0.86	1.71	12.26	< D.L.	1.37	0.14	2.93	0.01	0.00	0.00
Villa 4	Bernesga Mb.	1.48	0.68	1.79	12.94	0.15	1.16	0.06	2.44	0.01	0.00	0.00
Villa 5	Bernesga Mb.	1.35	0.74	1.83	12.49	< D.L.	1.06	0.03	2.59	0.01	0.00	0.00
Villa 6	Bernesga Mb.	1.41	0.71	1.87	13.22	0.28	1.11	0.05	2.58	0.01	0.00	0.00
Villa 7	Bernesga Mb.	1.12	0.89	1.72	11.18	0.34	1.26	0.10	2.58	0.01	0.00	0.00
Villa 8	Bernesga Mb.	1.38	0.72	1.73	12.50	0.29	1.25	0.10	2.08	0.01	0.00	0.00
Villa 9	Bernesga Mb.	1.36	0.73	1.79	11.70	0.29	1.14	0.06	2.17	0.01	0.00	0.00
Villa 10	Bernesga Mb.	1.03	0.97	1.83	9.89	0.25	1.07	0.03	2.71	0.01	0.00	0.00
Villa 11	Bernesga Mb.	1.51	0.66	1.80	13.78	0.22	1.25	0.10	2.53	0.01	0.00	0.00
Villa 12	Bernesga Mb.	1.77	0.56	1.72	15.10	0.24	1.22	0.09	2.14	0.01	0.00	0.00
Villa 13	Bernesga Mb.	1.52	0.66	1.76	12.91	< D.L.	1.13	0.05	1.88	0.01	0.00	0.00
Villa 14	Bernesga Mb.	1.40	0.71	1.72	13.49	< D.L.	1.24	0.10	2.81	0.01	0.00	0.00
Villa 15	Bernesga Mb.	1.20	0.83	1.72	10.86	0.20	1.19	0.08	2.48	0.01	0.00	0.00
Villa 16	Bernesga Mb.	1.72	0.58	1.70	14.71	0.24	1.15	0.06	1.89	0.01	0.00	0.00
Villa 17	Bernesga Mb.	1.22	0.82	1.65	11.94	0.29	1.38	0.14	2.27	0.01	0.00	0.00
Villa 18	Bernesga Mb.	0.66	1.52	1.58	8.59	< D.L.	1.70	0.23	2.72	0.01	0.00	0.00
Villa 19	Bernesga Mb.	1.11	0.90	1.64	10.11	0.32	1.38	0.14	2.14	0.01	0.00	0.00
Villa 20	Bernesga Mb.	0.73	1.36	1.71	7.55	< D.L.	1.20	0.08	2.13	0.01	0.00	0.00
Villa 21	Bernesga Mb.	1.05	0.95	1.55	8.77	< D.L.	1.43	0.15	2.68	0.01	0.00	0.00
Villa 22	Bernesga Mb.	0.78	1.29	1.65	6.83	0.50	1.35	0.13	1.93	0.01	0.00	0.00
Villa 23	Bernesga Mb.	0.98	1.02	1.62	10.25	< D.L.	1.49	0.17	2.84	0.01	0.00	0.00
Villa 24	Bernesga Mb.	0.94	1.07	1.49	10.24	< D.L.	1.66	0.22	2.36	0.01	0.00	0.00
Villa 25	Bernesga Mb.	0.87	1.15	1.54	8.63	< D.L.	1.71	0.23	2.45	0.01	0.00	0.00

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	V (wt%)	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
Villa 1	Bernesga Mb.	0.00	0.00	0.00	6.27	0.03	7.16	12.82	397033.25	1066.23	-23.69
Villa 2	Bernesga Mb.	0.00	0.00	0.00	4.41	0.02	7.17	12.34	386393.34	1258.23	-21.34
Villa 3	Bernesga Mb.	0.00	0.00	0.00	6.40	0.03	7.18	12.85	393177.68	1084.00	-21.73
Villa 4	Bernesga Mb.	0.00	0.00	0.00	5.23	0.03	7.11	13.31	383659.91	2059.20	-21.82
Villa 5	Bernesga Mb.	0.00	0.00	0.00	6.03	0.03	7.31	13.71	413615.91	1103.20	-25.43
Villa 6	Bernesga Mb.	0.00	0.00	0.00	5.79	0.03	7.62	14.43	381754.09	1160.27	-22.93
Villa 7	Bernesga Mb.	0.00	0.00	0.00	7.13	0.03	7.12	12.73	409399.86	1205.13	-23.60
Villa 8	Bernesga Mb.	0.00	0.00	0.00	5.57	0.02	7.25	12.92	397174.79	908.37	-23.76
Villa 9	Bernesga Mb.	0.00	0.00	0.00	6.01	0.03	7.25	12.88	389693.76	1250.33	-22.62
Villa 10	Bernesga Mb.	0.00	0.00	0.00	9.00	0.03	7.11	13.59	391074.32	1184.53	-22.04
Villa 11	Bernesga Mb.	0.00	0.00	0.00	4.75	0.03	7.20	13.15	410641.00	1137.17	-24.67
Villa 12	Bernesga Mb.	0.00	0.00	0.00	3.25	0.02	6.91	12.00	389123.17	2077.27	-22.12
Villa 13	Bernesga Mb.	0.00	0.00	0.00	4.69	0.02	7.01	12.30	400374.64	1098.07	-24.37
Villa 14	Bernesga Mb.	0.00	0.00	0.00	4.74	0.02	7.13	12.04	412581.41	1273.90	-25.08
Villa 15	Bernesga Mb.	0.00	0.00	0.00	6.51	0.02	6.95	11.81	394646.36	996.53	-22.75
Villa 16	Bernesga Mb.	0.00	0.00	0.00	3.49	0.03	7.11	12.01	390914.27	955.73	-23.59
Villa 17	Bernesga Mb.	0.00	0.00	0.00	6.20	0.03	7.19	12.46	383918.26	1242.17	-21.60
Villa 18	Bernesga Mb.	0.00	0.00	0.00	10.26	0.02	7.16	11.28	406573.98	1262.13	-23.10
Villa 19	Bernesga Mb.	0.00	0.00	0.00	7.50	0.03	7.11	12.04	388316.89	1143.30	-22.01
Villa 20	Bernesga Mb.	0.00	0.00	0.00	11.77	0.03	7.10	11.78	405831.83	1226.47	-24.38
Villa 21	Bernesga Mb.	0.00	0.00	0.00	7.93	0.02	7.30	10.72	405729.72	1109.43	-25.06
Villa 22	Bernesga Mb.	0.00	0.00	0.00	11.70	0.03	7.10	10.78	414325.61	1072.53	-26.65
Villa 23	Bernesga Mb.	0.00	0.00	0.00	8.07	0.02	7.20	12.30	400537.58	1086.43	-22.91
Villa 24	Bernesga Mb.	0.00	0.00	0.00	7.04	0.02	7.07	10.47	386429.40	1295.43	-21.70
Villa 25	Bernesga Mb.	0.00	0.00	0.00	8.98	0.02	7.14	10.94	392349.75	1144.30	-21.39

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
Villa 1	Bernesga Mb.	-11.07	16.22	-2.36	0.82	94.43	95.21
Villa 2	Bernesga Mb.	-9.97	15.78	-1.49	0.87	94.39	95.18
Villa 3	Bernesga Mb.	-10.15	16.01	-1.56	0.87	94.56	95.30
Villa 4	Bernesga Mb.	-10.20	15.39	-1.93	0.84	94.02	94.92
Villa 5	Bernesga Mb.	-11.89	17.16	-2.67	0.82	94.19	95.05
Villa 6	Bernesga Mb.	-10.72	15.99	-2.13	0.83	93.98	94.90
Villa 7	Bernesga Mb.	-11.03	16.76	-2.03	0.84	94.52	95.28
Villa 8	Bernesga Mb.	-11.10	16.54	-2.22	0.83	94.65	95.38
Villa 9	Bernesga Mb.	-10.57	15.88	-2.04	0.84	94.04	94.94
Villa 10	Bernesga Mb.	-10.30	15.52	-1.96	0.84	93.60	94.63
Villa 11	Bernesga Mb.	-11.53	17.10	-2.35	0.83	94.71	95.42
Villa 12	Bernesga Mb.	-10.34	15.91	-1.79	0.85	94.16	95.02
Villa 13	Bernesga Mb.	-11.39	16.56	-2.49	0.82	94.40	95.19
Villa 14	Bernesga Mb.	-11.72	17.36	-2.40	0.83	94.73	95.44
Villa 15	Bernesga Mb.	-10.63	16.02	-2.03	0.84	94.25	95.08
Villa 16	Bernesga Mb.	-11.02	16.12	-2.37	0.82	94.41	95.20
Villa 17	Bernesga Mb.	-10.09	15.67	-1.68	0.86	94.69	95.39
Villa 18	Bernesga Mb.	-10.80	17.69	-1.30	0.89	95.33	95.88
Villa 19	Bernesga Mb.	-10.28	15.76	-1.82	0.85	94.82	95.49
Villa 20	Bernesga Mb.	-11.39	17.00	-2.26	0.83	94.45	95.23
Villa 21	Bernesga Mb.	-11.71	17.41	-2.36	0.83	95.32	95.88
Villa 22	Bernesga Mb.	-12.45	18.02	-2.77	0.82	95.35	95.90
Villa 23	Bernesga Mb.	-10.71	16.59	-1.80	0.86	95.12	95.72
Villa 24	Bernesga Mb.	-10.14	16.24	-1.42	0.88	95.31	95.86
Villa 25	Bernesga Mb.	-9.99	16.43	-1.17	0.90	95.27	95.83

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
Villa 1	Bernesga Mb.	83.47	4.21	-0.16	4.24
Villa 2	Bernesga Mb.	83.41	4.42	-0.48	4.45
Villa 3	Bernesga Mb.	83.82	4.82	-0.53	4.85
Villa 4	Bernesga Mb.	82.56	3.32	-0.14	3.35
Villa 5	Bernesga Mb.	82.78	4.69	0.69	4.72
Villa 6	Bernesga Mb.	82.40	3.90	0.50	3.93
Villa 7	Bernesga Mb.	83.65	5.42	0.10	5.45
Villa 8	Bernesga Mb.	84.01	4.93	-0.27	4.96
Villa 9	Bernesga Mb.	82.55	3.98	0.31	4.01
Villa 10	Bernesga Mb.	81.54	3.26	0.59	3.29
Villa 11	Bernesga Mb.	84.10	5.48	-0.09	5.51
Villa 12	Bernesga Mb.	82.84	4.35	0.03	4.38
Villa 13	Bernesga Mb.	83.35	4.32	-0.05	4.35
Villa 14	Bernesga Mb.	84.13	5.78	0.02	5.81
Villa 15	Bernesga Mb.	83.04	4.16	-0.11	4.19
Villa 16	Bernesga Mb.	83.44	4.01	-0.25	4.04
Villa 17	Bernesga Mb.	84.20	4.58	-0.75	4.61
Villa 18	Bernesga Mb.	85.69	7.56	-1.00	7.59
Villa 19	Bernesga Mb.	84.53	4.56	-0.96	4.59
Villa 20	Bernesga Mb.	83.43	5.09	0.11	5.11
Villa 21	Bernesga Mb.	85.71	6.49	-0.76	6.52
Villa 22	Bernesga Mb.	85.73	6.48	-0.83	6.51
Villa 23	Bernesga Mb.	85.24	5.56	-1.15	5.59
Villa 24	Bernesga Mb.	85.82	5.95	-1.47	5.98
Villa 25	Bernesga Mb.	85.68	6.08	-1.55	6.11

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
Villa 1	Bernesga Mb.	1.41	4.89	-44.91	0.85
Villa 2	Bernesga Mb.	1.07	4.86	-45.07	0.83
Villa 3	Bernesga Mb.	0.99	4.80	-45.68	0.83
Villa 4	Bernesga Mb.	1.45	4.93	-43.85	0.84
Villa 5	Bernesga Mb.	2.42	4.89	-47.61	0.86
Villa 6	Bernesga Mb.	2.16	4.95	-44.33	0.85
Villa 7	Bernesga Mb.	1.71	4.78	-47.55	0.84
Villa 8	Bernesga Mb.	1.28	4.86	-45.36	0.85
Villa 9	Bernesga Mb.	1.94	4.90	-45.06	0.85
Villa 10	Bernesga Mb.	2.29	4.92	-45.43	0.84
Villa 11	Bernesga Mb.	1.49	4.82	-47.10	0.85
Villa 12	Bernesga Mb.	1.64	4.93	-45.45	0.84
Villa 13	Bernesga Mb.	1.57	4.95	-45.48	0.85
Villa 14	Bernesga Mb.	1.62	4.84	-47.56	0.85
Villa 15	Bernesga Mb.	1.49	4.91	-45.39	0.84
Villa 16	Bernesga Mb.	1.32	4.95	-44.17	0.85
Villa 17	Bernesga Mb.	0.71	4.82	-43.91	0.84
Villa 18	Bernesga Mb.	0.47	4.76	-48.66	0.83
Villa 19	Bernesga Mb.	0.48	4.81	-43.90	0.84
Villa 20	Bernesga Mb.	1.75	4.91	-47.08	0.85
Villa 21	Bernesga Mb.	0.68	4.78	-46.06	0.85
Villa 22	Bernesga Mb.	0.66	4.88	-46.66	0.86
Villa 23	Bernesga Mb.	0.28	4.75	-45.70	0.84
Villa 24	Bernesga Mb.	-0.12	4.78	-44.52	0.83
Villa 25	Bernesga Mb.	-0.17	4.74	-45.77	0.82

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
Villa 1	Bernesga Mb.	4.40	0.46	4.00	4.00	1.00	0.00	9.00
Villa 2	Bernesga Mb.	4.94	0.49	4.00	4.00	1.00	0.00	9.00
Villa 3	Bernesga Mb.	4.97	0.48	4.00	4.00	4.00	0.00	12.00
Villa 4	Bernesga Mb.	4.44	0.48	4.00	4.00	4.00	0.00	12.00
Villa 5	Bernesga Mb.	4.41	0.46	4.00	4.00	4.00	0.00	12.00
Villa 6	Bernesga Mb.	4.23	0.48	4.00	4.00	4.00	0.00	12.00
Villa 7	Bernesga Mb.	4.90	0.46	4.00	4.00	1.00	0.00	9.00
Villa 8	Bernesga Mb.	4.58	0.45	4.00	4.00	1.00	0.00	9.00
Villa 9	Bernesga Mb.	4.47	0.48	4.00	4.00	4.00	0.00	12.00
Villa 10	Bernesga Mb.	4.49	0.49	4.00	4.00	4.00	0.00	12.00
Villa 11	Bernesga Mb.	4.72	0.45	4.00	4.00	4.00	0.00	12.00
Villa 12	Bernesga Mb.	4.92	0.48	4.00	4.00	1.00	0.00	9.00
Villa 13	Bernesga Mb.	4.50	0.46	4.00	4.00	1.00	0.00	9.00
Villa 14	Bernesga Mb.	4.82	0.45	4.00	4.00	4.00	0.00	12.00
Villa 15	Bernesga Mb.	4.74	0.47	4.00	4.00	1.00	0.00	9.00
Villa 16	Bernesga Mb.	4.37	0.46	4.00	4.00	1.00	0.00	9.00
Villa 17	Bernesga Mb.	4.73	0.47	4.00	4.00	1.00	0.00	9.00
Villa 18	Bernesga Mb.	5.86	0.46	4.00	4.00	1.00	0.00	9.00
Villa 19	Bernesga Mb.	4.69	0.46	4.00	4.00	1.00	0.00	9.00
Villa 20	Bernesga Mb.	4.82	0.46	4.00	4.00	1.00	0.00	9.00
Villa 21	Bernesga Mb.	4.76	0.42	4.00	4.00	1.00	0.00	9.00
Villa 22	Bernesga Mb.	4.79	0.42	4.00	4.00	1.00	0.00	9.00
Villa 23	Bernesga Mb.	4.98	0.45	4.00	4.00	4.00	0.00	12.00
Villa 24	Bernesga Mb.	5.26	0.45	4.00	4.00	1.00	0.00	9.00
Villa 25	Bernesga Mb.	5.49	0.47	4.00	4.00	1.00	0.00	9.00

5.2 Villa 26 - 50

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
Villa 26	Bernesga Mb.	80.95	29.39	40.81	151.15	70.20
Villa 27	Bernesga Mb.	98.30	35.91	42.53	176.74	78.44
Villa 28	Bernesga Mb.	84.34	38.21	42.00	164.55	80.21
Villa 29	Bernesga Mb.	91.39	36.85	43.11	171.34	79.96
Villa 30	Bernesga Mb.	93.97	27.91	44.60	166.48	72.51
Villa 31	Bernesga Mb.	97.54	30.85	46.32	174.71	77.17
Villa 32	Bernesga Mb.	83.96	34.40	40.63	158.99	75.03
Villa 33	Bernesga Mb.	69.46	34.99	43.54	148.00	78.54
Villa 34	Bernesga Mb.	83.02	28.01	42.20	153.23	70.21
Villa 35	Bernesga Mb.	92.41	35.96	47.19	175.56	83.15
Villa 36	Bernesga Mb.	94.91	37.52	44.01	176.43	81.52
Villa 37	Bernesga Mb.	98.97	34.88	46.09	179.94	80.97
Villa 38	Bernesga Mb.	102.19	37.77	47.93	187.89	85.70
Villa 39	Bernesga Mb.	85.05	35.80	43.61	164.46	79.41
Villa 40	Bernesga Mb.	74.16	13.36	41.84	129.36	55.20
Villa 41	Bernesga Mb.	84.25	31.42	41.43	157.10	72.85
Villa 42	Bernesga Mb.	83.65	38.65	41.40	163.69	80.05
Villa 43	Bernesga Mb.	83.49	33.42	44.18	161.09	77.60
Villa 44	Bernesga Mb.	85.10	0.00	44.67	129.77	44.67
Villa 45	Bernesga Mb.	81.84	40.23	42.71	164.77	82.93
Villa 46	Bernesga Mb.	75.86	32.37	40.66	148.90	73.03
Villa 47	Bernesga Mb.	50.84	36.53	47.03	134.40	83.56
Villa 48	Bernesga Mb.	72.25	38.40	42.34	152.99	80.74
Villa 49	Bernesga Mb.	77.27	23.37	43.53	144.17	66.90
Villa 50	Bernesga Mb.	67.50	23.73	43.82	135.05	67.55

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
Villa 26	Bernesga Mb.	96.80	46.28	61.37	204.45	107.65
Villa 27	Bernesga Mb.	117.55	56.55	63.96	238.05	120.51
Villa 28	Bernesga Mb.	100.85	60.17	63.16	224.18	123.33
Villa 29	Bernesga Mb.	109.28	58.03	64.83	232.13	122.85
Villa 30	Bernesga Mb.	112.37	43.95	67.07	223.39	111.02
Villa 31	Bernesga Mb.	116.64	48.59	69.65	234.88	118.24
Villa 32	Bernesga Mb.	100.40	54.17	61.09	215.67	115.27
Villa 33	Bernesga Mb.	83.07	55.11	65.48	203.65	120.59
Villa 34	Bernesga Mb.	99.28	44.11	63.46	206.85	107.57
Villa 35	Bernesga Mb.	110.51	56.63	70.97	238.10	127.59
Villa 36	Bernesga Mb.	113.49	59.08	66.18	238.75	125.26
Villa 37	Bernesga Mb.	118.35	54.93	69.31	242.59	124.24
Villa 38	Bernesga Mb.	122.20	59.48	72.07	253.75	131.55
Villa 39	Bernesga Mb.	101.71	56.37	65.58	223.66	121.95
Villa 40	Bernesga Mb.	88.68	21.04	62.91	172.63	83.95
Villa 41	Bernesga Mb.	100.75	49.48	62.30	212.53	111.78
Villa 42	Bernesga Mb.	100.03	60.87	62.25	223.14	123.12
Villa 43	Bernesga Mb.	99.84	52.63	66.44	218.91	119.07
Villa 44	Bernesga Mb.	101.76	0.00	67.17	168.93	67.17
Villa 45	Bernesga Mb.	97.87	63.35	64.22	225.43	127.56
Villa 46	Bernesga Mb.	90.72	50.97	61.15	202.84	112.12
Villa 47	Bernesga Mb.	60.80	57.52	70.72	189.04	128.24
Villa 48	Bernesga Mb.	86.40	60.47	63.67	210.54	124.14
Villa 49	Bernesga Mb.	92.40	36.80	65.46	194.66	102.26
Villa 50	Bernesga Mb.	80.72	37.37	65.89	183.98	103.26

Sample	Formation	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al2O3*5	10Al2O3
Villa 26	Bernesga Mb.	121.00	242.00	8.24	4.20	5.62	34.33	7.06	145.75	291.50
Villa 27	Bernesga Mb.	146.93	293.87	9.98	4.96	6.65	34.69	6.90	146.50	293.01
Villa 28	Bernesga Mb.	126.07	252.13	7.59	4.36	5.84	35.36	6.77	150.18	300.36
Villa 29	Bernesga Mb.	136.60	273.20	8.82	4.68	6.27	38.82	6.56	166.80	333.61
Villa 30	Bernesga Mb.	140.47	280.93	10.38	4.79	6.41	37.77	7.07	160.68	321.36
Villa 31	Bernesga Mb.	145.80	291.60	10.53	4.93	6.61	37.75	6.93	159.57	319.14
Villa 32	Bernesga Mb.	125.50	251.00	8.04	4.34	5.82	34.91	6.79	148.74	297.48
Villa 33	Bernesga Mb.	103.83	207.67	5.79	3.59	4.81	35.70	6.82	150.98	301.95
Villa 34	Bernesga Mb.	124.10	248.20	8.73	4.30	5.76	34.07	6.52	143.64	287.27
Villa 35	Bernesga Mb.	138.13	276.27	9.09	4.72	6.32	36.42	6.68	152.36	304.72
Villa 36	Bernesga Mb.	141.87	283.73	9.26	4.83	6.47	35.35	6.67	148.95	297.89
Villa 37	Bernesga Mb.	147.93	295.87	10.22	4.99	6.69	35.16	6.47	146.74	293.49
Villa 38	Bernesga Mb.	152.75	305.50	10.32	5.12	6.86	37.61	6.47	157.91	315.81
Villa 39	Bernesga Mb.	127.13	254.27	8.02	4.39	5.88	34.39	6.40	144.36	288.71
Villa 40	Bernesga Mb.	110.85	221.70	9.33	3.85	5.16	37.25	9.23	159.75	319.50
Villa 41	Bernesga Mb.	125.93	251.87	8.47	4.35	5.83	35.41	7.05	150.78	301.55
Villa 42	Bernesga Mb.	125.03	250.07	7.43	4.32	5.80	33.84	6.29	142.93	285.87
Villa 43	Bernesga Mb.	124.80	249.60	8.09	4.32	5.79	35.41	6.63	149.14	298.27
Villa 44	Bernesga Mb.	127.20	254.40	12.72	4.39	5.89	34.01	11.45	141.84	283.69
Villa 45	Bernesga Mb.	122.33	244.67	6.95	4.24	5.68	36.89	6.30	157.42	314.83
Villa 46	Bernesga Mb.	113.40	226.80	7.09	3.94	5.28	35.92	6.97	153.79	307.58
Villa 47	Bernesga Mb.	76.00	152.00	2.81	2.35	3.15	36.02	6.59	150.49	300.97
Villa 48	Bernesga Mb.	108.00	216.00	5.76	3.74	5.02	35.53	6.62	150.85	301.71
Villa 49	Bernesga Mb.	115.50	231.00	8.48	4.01	5.37	36.34	7.59	154.15	308.29
Villa 50	Bernesga Mb.	100.90	201.80	6.98	3.47	4.66	36.65	7.49	155.54	311.08

Sample	Formation	15Al2O3	Al2O3/10	K2O *5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	200TiO2	300TiO2	K2O/Al2O3
Villa 26	Bernesga Mb.	437.26	2.92	19.18	0.00	14.28	814.53	3.94	5.07	232.27	348.41	0.13
Villa 27	Bernesga Mb.	439.51	2.93	19.99	0.00	13.71	-84.99	3.87	4.98	241.90	362.85	0.14
Villa 28	Bernesga Mb.	450.54	3.00	19.74	0.00	13.57	-1910.19	3.78	4.87	236.23	354.34	0.13
Villa 29	Bernesga Mb.	500.41	3.34	20.26	0.00	14.34	-8322.59	3.58	4.61	242.50	363.75	0.12
Villa 30	Bernesga Mb.	482.04	3.21	20.96	0.00	14.96	-3541.61	3.90	5.01	234.97	352.45	0.13
Villa 31	Bernesga Mb.	478.71	3.19	21.77	0.00	11.96	-2131.32	4.01	5.16	236.34	354.51	0.14
Villa 32	Bernesga Mb.	446.22	2.97	19.09	0.00	14.60	-2085.61	3.73	4.80	238.23	357.35	0.13
Villa 33	Bernesga Mb.	452.93	3.02	20.46	0.00	12.93	-1310.44	3.86	4.97	239.96	359.94	0.14
Villa 34	Bernesga Mb.	430.91	2.87	19.83	0.00	12.51	-1138.48	3.69	4.74	241.50	362.25	0.14
Villa 35	Bernesga Mb.	457.08	3.05	22.18	0.00	12.73	-2473.99	3.78	4.87	240.46	360.69	0.15
Villa 36	Bernesga Mb.	446.84	2.98	20.68	0.00	14.51	-2933.60	3.65	4.69	235.47	353.20	0.14
Villa 37	Bernesga Mb.	440.23	2.93	21.66	0.00	13.28	-2831.93	3.60	4.63	236.67	355.01	0.15
Villa 38	Bernesga Mb.	473.72	3.16	22.52	0.00	13.50	-5976.43	3.58	4.61	247.21	370.82	0.14
Villa 39	Bernesga Mb.	433.07	2.89	20.49	0.00	10.83	-1022.61	3.72	4.78	246.99	370.48	0.14
Villa 40	Bernesga Mb.	479.24	3.20	19.66	0.00	13.12	13138.10	5.54	7.13	238.36	357.54	0.12
Villa 41	Bernesga Mb.	452.33	3.02	19.47	0.00	14.80	-940.48	3.90	5.01	242.15	363.22	0.13
Villa 42	Bernesga Mb.	428.80	2.86	19.45	0.00	13.13	-3003.50	3.48	4.48	247.19	370.78	0.14
Villa 43	Bernesga Mb.	447.41	2.98	20.76	0.00	11.96	-1479.66	3.80	4.89	243.46	365.19	0.14
Villa 44	Bernesga Mb.	425.53	2.84	20.99	0.00	11.70	34392.41	7.19	9.25	218.41	327.61	0.15
Villa 45	Bernesga Mb.	472.25	3.15	20.07	0.00	13.27	-6856.09	3.48	4.48	239.94	359.91	0.13
Villa 46	Bernesga Mb.	461.36	3.08	19.11	0.00	12.93	-991.13	3.97	5.11	226.49	339.73	0.12
Villa 47	Bernesga Mb.	451.46	3.01	22.10	0.00	12.22	-2261.11	3.76	4.83	244.86	367.29	0.15
Villa 48	Bernesga Mb.	452.56	3.02	19.90	0.00	12.77	-2544.64	3.74	4.81	249.54	374.30	0.13
Villa 49	Bernesga Mb.	462.44	3.08	20.46	0.00	13.31	3001.65	4.38	5.63	242.08	363.12	0.13
Villa 50	Bernesga Mb.	466.62	3.11	20.59	0.00	14.71	965.49	4.21	5.42	242.16	363.24	0.13

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
Villa 26	Bernesga Mb.	-0.88	0.05	0.75	0.22	0.35	2.86	-0.46	21.70
Villa 27	Bernesga Mb.	-0.87	0.05	0.74	0.22	0.35	2.88	-0.46	21.11
Villa 28	Bernesga Mb.	-0.88	0.05	0.73	0.21	0.35	2.87	-0.46	21.85
Villa 29	Bernesga Mb.	-0.92	0.04	0.71	0.18	0.35	2.89	-0.46	23.77
Villa 30	Bernesga Mb.	-0.88	0.05	0.75	0.20	0.34	2.91	-0.46	22.28
Villa 31	Bernesga Mb.	-0.87	0.04	0.76	0.20	0.34	2.93	-0.47	21.46
Villa 32	Bernesga Mb.	-0.89	0.05	0.73	0.21	0.35	2.85	-0.46	22.22
Villa 33	Bernesga Mb.	-0.87	0.04	0.74	0.22	0.35	2.89	-0.46	21.35
Villa 34	Bernesga Mb.	-0.86	0.04	0.72	0.23	0.35	2.87	-0.46	20.82
Villa 35	Bernesga Mb.	-0.84	0.04	0.73	0.22	0.34	2.94	-0.47	20.19
Villa 36	Bernesga Mb.	-0.86	0.05	0.72	0.22	0.34	2.90	-0.46	20.88
Villa 37	Bernesga Mb.	-0.83	0.05	0.71	0.23	0.34	2.93	-0.47	19.82
Villa 38	Bernesga Mb.	-0.85	0.04	0.71	0.20	0.34	2.95	-0.47	20.66
Villa 39	Bernesga Mb.	-0.85	0.04	0.73	0.23	0.35	2.89	-0.46	20.38
Villa 40	Bernesga Mb.	-0.91	0.04	0.90	0.19	0.35	2.87	-0.46	23.32
Villa 41	Bernesga Mb.	-0.89	0.05	0.75	0.23	0.35	2.86	-0.46	22.18
Villa 42	Bernesga Mb.	-0.87	0.05	0.70	0.24	0.35	2.86	-0.46	21.04
Villa 43	Bernesga Mb.	-0.86	0.04	0.73	0.23	0.34	2.90	-0.46	20.84
Villa 44	Bernesga Mb.	-0.83	0.04	1.01	0.21	0.34	2.91	-0.46	19.65
Villa 45	Bernesga Mb.	-0.89	0.04	0.70	0.21	0.35	2.88	-0.46	22.60
Villa 46	Bernesga Mb.	-0.91	0.04	0.75	0.24	0.35	2.85	-0.46	22.96
Villa 47	Bernesga Mb.	-0.83	0.04	0.73	0.22	0.34	2.94	-0.47	19.99
Villa 48	Bernesga Mb.	-0.88	0.04	0.73	0.23	0.35	2.88	-0.46	21.81
Villa 49	Bernesga Mb.	-0.88	0.04	0.80	0.23	0.35	2.89	-0.46	21.80
Villa 50	Bernesga Mb.	-0.88	0.05	0.78	0.23	0.35	2.90	-0.46	21.88

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
Villa 26	Bernesga Mb.	1.34	5.18	7.06	1.67	0.22	0.60	0.19	44.40	0.01
Villa 27	Bernesga Mb.	1.39	5.39	6.90	1.67	0.22	0.60	0.19	43.14	0.01
Villa 28	Bernesga Mb.	1.37	5.32	6.77	1.63	0.21	0.61	0.18	44.12	0.01
Villa 29	Bernesga Mb.	1.40	5.46	6.56	1.50	0.18	0.67	0.15	43.68	0.01
Villa 30	Bernesga Mb.	1.44	5.63	7.07	1.57	0.20	0.64	0.17	42.66	0.01
Villa 31	Bernesga Mb.	1.49	5.84	6.93	1.59	0.20	0.63	0.18	42.22	0.01
Villa 32	Bernesga Mb.	1.34	5.16	6.79	1.64	0.21	0.61	0.18	44.41	0.01
Villa 33	Bernesga Mb.	1.41	5.51	6.82	1.67	0.22	0.60	0.18	43.15	0.01
Villa 34	Bernesga Mb.	1.38	5.35	6.52	1.68	0.23	0.60	0.18	43.93	0.01
Villa 35	Bernesga Mb.	1.51	5.95	6.68	1.68	0.22	0.60	0.18	41.17	0.01
Villa 36	Bernesga Mb.	1.43	5.56	6.67	1.64	0.22	0.61	0.18	43.52	0.01
Villa 37	Bernesga Mb.	1.48	5.81	6.47	1.68	0.23	0.59	0.18	42.66	0.01
Villa 38	Bernesga Mb.	1.53	6.03	6.47	1.59	0.20	0.63	0.16	41.75	0.01
Villa 39	Bernesga Mb.	1.42	5.52	6.40	1.71	0.23	0.59	0.18	41.65	0.01
Villa 40	Bernesga Mb.	1.37	5.30	9.23	1.55	0.19	0.65	0.25	39.81	0.00
Villa 41	Bernesga Mb.	1.36	5.25	7.05	1.68	0.23	0.60	0.18	42.03	0.01
Villa 42	Bernesga Mb.	1.36	5.25	6.29	1.73	0.24	0.58	0.17	43.33	0.01
Villa 43	Bernesga Mb.	1.43	5.58	6.63	1.70	0.23	0.59	0.18	42.11	0.01
Villa 44	Bernesga Mb.	1.44	5.64	11.45	1.63	0.21	0.61	0.36	38.74	0.00
Villa 45	Bernesga Mb.	1.39	5.41	6.30	1.63	0.21	0.61	0.16	43.08	0.01
Villa 46	Bernesga Mb.	1.34	5.16	6.97	1.73	0.24	0.58	0.18	42.42	0.01
Villa 47	Bernesga Mb.	1.51	5.93	6.59	1.64	0.22	0.61	0.18	43.25	0.01
Villa 48	Bernesga Mb.	1.38	5.36	6.62	1.71	0.23	0.59	0.18	42.51	0.01
Villa 49	Bernesga Mb.	1.41	5.51	7.59	1.71	0.23	0.58	0.20	40.24	0.00
Villa 50	Bernesga Mb.	1.42	5.54	7.49	1.69	0.23	0.59	0.19	41.37	0.01

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Ti Cal (ppm)	Zr/Sc	Cr/Th	Th/Sc
Villa 26	Bernesga Mb.	25.10	0.06	344.72	0.68	215.33	0.42	0.69	1.37	< D.L.	< D.L.	3.86	6961.33	< D.L.	10.17	< D.L.
Villa 27	Bernesga Mb.	24.23	0.06	362.71	0.85	212.26	0.30	0.76	1.59	< D.L.	< D.L.	4.71	7249.90	< D.L.	9.21	< D.L.
Villa 28	Bernesga Mb.	25.43	0.06	353.29	0.96	203.52	0.26	0.76	1.60	74.11	14.67	5.01	7079.80	6.43	8.74	0.79
Villa 29	Bernesga Mb.	27.51	0.06	383.59	0.90	194.65	0.22	0.76	1.57	< D.L.	< D.L.	4.84	7267.80	< D.L.	9.27	< D.L.
Villa 30	Bernesga Mb.	27.35	0.06	357.04	1.00	203.18	0.27	0.74	1.47	< D.L.	< D.L.	3.66	7042.01	< D.L.	12.09	< D.L.
Villa 31	Bernesga Mb.	27.01	0.06	370.97	< D.L.	193.05	0.23	0.67	1.65	60.57	< D.L.	4.05	7083.29	< D.L.	10.13	< D.L.
Villa 32	Bernesga Mb.	24.97	0.06	384.54	0.68	208.82	0.35	0.71	1.52	< D.L.	< D.L.	4.51	7140.00	< D.L.	8.83	< D.L.
Villa 33	Bernesga Mb.	25.17	0.06	357.04	0.89	187.08	0.22	0.70	1.59	< D.L.	< D.L.	4.59	7191.76	< D.L.	9.02	< D.L.
Villa 34	Bernesga Mb.	23.79	0.06	355.38	< D.L.	220.23	0.27	0.81	1.66	< D.L.	< D.L.	3.68	7237.92	< D.L.	12.78	< D.L.
Villa 35	Bernesga Mb.	25.34	0.06	364.85	0.94	199.34	0.37	0.68	1.11	< D.L.	< D.L.	4.72	7206.77	< D.L.	8.72	< D.L.
Villa 36	Bernesga Mb.	25.30	0.06	352.42	0.77	220.60	0.48	0.68	1.15	< D.L.	9.57	4.92	7057.04	5.95	8.23	0.68
Villa 37	Bernesga Mb.	24.80	0.06	361.93	< D.L.	205.37	0.31	0.69	1.35	< D.L.	11.77	4.58	7093.19	5.86	9.27	0.65
Villa 38	Bernesga Mb.	25.55	0.06	355.75	< D.L.	194.50	0.27	0.73	1.13	< D.L.	< D.L.	4.96	7409.07	< D.L.	9.20	< D.L.
Villa 39	Bernesga Mb.	23.38	0.06	369.19	< D.L.	205.00	0.36	0.75	1.26	< D.L.	< D.L.	4.70	7402.39	< D.L.	9.09	< D.L.
Villa 40	Bernesga Mb.	26.81	0.06	380.44	0.74	194.58	0.48	0.63	1.28	< D.L.	6.64	1.75	7143.76	3.82	18.86	0.17
Villa 41	Bernesga Mb.	24.91	0.06	352.63	0.68	207.89	0.50	0.70	1.14	< D.L.	< D.L.	4.12	7257.19	< D.L.	9.21	< D.L.
Villa 42	Bernesga Mb.	23.13	0.06	383.63	0.55	217.10	0.43	0.78	1.18	< D.L.	< D.L.	5.07	7408.24	< D.L.	8.60	< D.L.
Villa 43	Bernesga Mb.	24.50	0.06	360.28	< D.L.	183.72	0.29	0.72	1.12	< D.L.	< D.L.	4.39	7296.67	< D.L.	9.62	< D.L.
Villa 44	Bernesga Mb.	25.98	0.06	354.64	1.05	208.91	0.37	0.74	1.46	48.61	< D.L.	0.00	6545.70	< D.L.	< D.L.	< D.L.
Villa 45	Bernesga Mb.	26.24	0.06	367.48	< D.L.	179.85	0.25	0.72	1.26	< D.L.	< D.L.	5.28	7191.12	< D.L.	7.90	< D.L.
Villa 46	Bernesga Mb.	27.16	0.06	360.15	< D.L.	189.04	0.33	0.73	1.32	< D.L.	< D.L.	4.25	6787.87	< D.L.	9.31	< D.L.
Villa 47	Bernesga Mb.	24.58	0.06	334.52	1.00	165.10	0.27	0.57	1.10	45.10	< D.L.	4.79	7338.63	< D.L.	7.54	< D.L.
Villa 48	Bernesga Mb.	24.18	0.06	345.30	0.63	181.78	0.32	0.71	1.16	< D.L.	9.43	5.04	7478.69	7.01	7.90	0.73
Villa 49	Bernesga Mb.	25.47	0.06	362.05	0.95	191.18	0.44	0.67	1.14	< D.L.	< D.L.	3.07	7255.26	< D.L.	11.90	< D.L.
Villa 50	Bernesga Mb.	25.69	0.06	369.36	0.68	194.60	0.43	0.68	1.08	< D.L.	< D.L.	3.11	7257.67	< D.L.	12.41	< D.L.

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
Villa 26	Bernesga Mb.	0.66	1.51	0.02	5.57	0.96	2.01	< D.L.	0.50	1.99
Villa 27	Bernesga Mb.	0.71	1.41	0.02	6.10	0.94	1.96	< D.L.	0.48	2.10
Villa 28	Bernesga Mb.	0.70	1.42	0.02	6.11	0.93	1.97	< D.L.	0.47	2.12
Villa 29	Bernesga Mb.	0.68	1.48	0.02	6.32	0.89	1.95	< D.L.	0.48	2.07
Villa 30	Bernesga Mb.	0.63	1.59	0.02	5.72	0.85	2.13	< D.L.	0.50	1.98
Villa 31	Bernesga Mb.	0.65	1.54	0.02	6.24	0.97	2.09	< D.L.	0.40	2.47
Villa 32	Bernesga Mb.	0.67	1.49	0.02	6.14	0.95	2.13	< D.L.	0.46	2.15
Villa 33	Bernesga Mb.	0.65	1.53	0.02	5.74	0.93	2.04	< D.L.	0.44	2.26
Villa 34	Bernesga Mb.	0.67	1.49	0.02	5.74	0.83	1.84	< D.L.	0.49	2.05
Villa 35	Bernesga Mb.	0.68	1.47	0.02	6.30	1.01	1.93	< D.L.	0.61	1.65
Villa 36	Bernesga Mb.	0.71	1.40	0.02	6.43	1.06	1.76	< D.L.	0.59	1.70
Villa 37	Bernesga Mb.	0.67	1.49	0.02	6.32	0.97	2.00	< D.L.	0.51	1.95
Villa 38	Bernesga Mb.	0.66	1.51	0.02	5.99	0.91	1.79	< D.L.	0.64	1.56
Villa 39	Bernesga Mb.	0.73	1.37	0.02	6.22	0.97	1.91	< D.L.	0.59	1.68
Villa 40	Bernesga Mb.	0.73	1.36	0.02	6.12	1.16	3.25	< D.L.	0.50	2.01
Villa 41	Bernesga Mb.	0.75	1.33	0.02	5.99	1.08	1.89	< D.L.	0.61	1.64
Villa 42	Bernesga Mb.	0.76	1.32	0.02	6.63	0.98	1.71	< D.L.	0.66	1.52
Villa 43	Bernesga Mb.	0.70	1.43	0.02	6.03	0.97	1.87	< D.L.	0.65	1.55
Villa 44	Bernesga Mb.	0.71	1.42	0.02	6.22	0.95	3.81	< D.L.	0.51	1.97
Villa 45	Bernesga Mb.	0.72	1.39	0.02	6.38	1.00	1.87	< D.L.	0.57	1.75
Villa 46	Bernesga Mb.	0.75	1.33	0.02	6.45	1.02	2.10	< D.L.	0.56	1.80
Villa 47	Bernesga Mb.	0.70	1.43	0.02	6.10	1.23	2.04	< D.L.	0.51	1.95
Villa 48	Bernesga Mb.	0.86	1.16	0.02	6.73	1.22	1.98	< D.L.	0.61	1.64
Villa 49	Bernesga Mb.	0.86	1.17	0.02	7.05	1.29	2.51	< D.L.	0.58	1.71
Villa 50	Bernesga Mb.	0.80	1.25	0.02	6.92	1.17	2.21	< D.L.	0.63	1.59

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
Villa 26	Bernesga Mb.	1.33	0.78	15.17	2.99	2.45	2.02	6.33	7.63
Villa 27	Bernesga Mb.	1.57	0.95	17.65	2.79	2.46	2.38	5.29	8.40
Villa 28	Bernesga Mb.	1.31	0.79	17.58	2.24	2.85	2.15	4.53	8.27
Villa 29	Bernesga Mb.	1.26	0.77	15.76	2.11	0.00	1.90	3.41	7.62
Villa 30	Bernesga Mb.	1.49	0.83	15.48	2.06	0.00	2.06	4.14	7.81
Villa 31	Bernesga Mb.	1.74	0.86	18.00	0.00	0.00	2.10	4.14	7.29
Villa 32	Bernesga Mb.	1.09	0.80	16.35	2.62	2.02	1.77	5.66	7.60
Villa 33	Bernesga Mb.	1.69	0.65	17.59	2.23	0.00	1.97	3.93	7.78
Villa 34	Bernesga Mb.	1.32	0.82	18.99	0.00	0.00	2.34	5.22	9.27
Villa 35	Bernesga Mb.	1.03	0.86	12.62	2.27	0.00	2.14	4.71	7.65
Villa 36	Bernesga Mb.	1.17	0.90	13.13	2.51	0.00	1.94	6.28	7.71
Villa 37	Bernesga Mb.	1.17	0.95	16.02	0.00	2.09	1.77	5.03	8.19
Villa 38	Bernesga Mb.	1.17	0.91	12.76	0.00	1.99	2.07	3.45	8.19
Villa 39	Bernesga Mb.	1.34	0.83	14.13	0.00	0.00	2.12	5.03	8.39
Villa 40	Bernesga Mb.	1.79	0.66	11.81	3.31	0.00	2.46	5.64	5.87
Villa 41	Bernesga Mb.	1.00	0.79	11.68	2.74	0.00	1.87	5.89	7.14
Villa 42	Bernesga Mb.	0.77	0.83	13.12	2.60	0.00	1.43	5.70	8.65
Villa 43	Bernesga Mb.	1.17	0.79	12.39	0.00	0.00	1.47	3.62	8.02
Villa 44	Bernesga Mb.	2.96	0.85	15.80	2.90	0.00	3.04	5.91	8.01
Villa 45	Bernesga Mb.	1.08	0.73	13.11	0.00	1.93	1.73	3.29	7.50
Villa 46	Bernesga Mb.	1.32	0.70	13.14	0.00	0.00	2.31	4.32	7.29
Villa 47	Bernesga Mb.	1.50	0.48	13.25	2.16	0.00	2.15	3.55	6.81
Villa 48	Bernesga Mb.	0.88	0.68	12.28	2.79	0.00	1.76	3.90	7.48
Villa 49	Bernesga Mb.	1.26	0.71	11.48	2.43	0.00	2.30	5.01	6.71
Villa 50	Bernesga Mb.	1.04	0.61	11.21	3.00	0.00	2.04	4.78	7.04

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
Villa 26	Bernesga Mb.	0.00	11.44	28.92	22.22	7.29	0.71	19.76	0.00
Villa 27	Bernesga Mb.	0.00	11.53	28.83	21.82	7.86	0.77	19.70	0.00
Villa 28	Bernesga Mb.	0.24	11.22	27.82	21.62	7.70	0.80	19.01	0.13
Villa 29	Bernesga Mb.	0.00	10.10	25.14	19.54	6.78	0.82	17.18	0.00
Villa 30	Bernesga Mb.	0.00	10.49	26.16	22.37	6.63	0.79	17.88	0.00
Villa 31	Bernesga Mb.	0.30	10.51	26.74	22.78	7.05	0.81	18.28	0.16
Villa 32	Bernesga Mb.	0.00	11.30	28.40	22.97	7.25	0.74	19.41	0.00
Villa 33	Bernesga Mb.	0.00	11.12	28.21	22.54	7.23	0.82	19.28	0.00
Villa 34	Bernesga Mb.	0.00	11.61	29.77	21.10	7.69	0.78	20.35	0.00
Villa 35	Bernesga Mb.	0.00	11.03	27.61	21.86	7.72	0.73	18.87	0.00
Villa 36	Bernesga Mb.	0.00	11.20	28.41	20.06	8.16	0.68	19.42	0.00
Villa 37	Bernesga Mb.	0.00	11.47	28.67	23.77	7.97	0.76	19.59	0.00
Villa 38	Bernesga Mb.	0.00	10.67	25.86	20.19	7.46	0.79	17.67	0.00
Villa 39	Bernesga Mb.	0.00	11.68	28.64	21.31	8.16	0.74	19.57	0.00
Villa 40	Bernesga Mb.	0.00	10.44	29.29	30.04	6.80	0.68	20.02	0.00
Villa 41	Bernesga Mb.	0.00	11.07	29.74	19.39	7.73	0.66	20.33	0.00
Villa 42	Bernesga Mb.	0.00	11.69	29.53	19.05	8.46	0.70	20.18	0.00
Villa 43	Bernesga Mb.	0.00	11.24	28.04	20.74	7.74	0.77	19.16	0.00
Villa 44	Bernesga Mb.	0.33	11.72	27.48	41.28	7.65	0.73	18.78	0.17
Villa 45	Bernesga Mb.	0.00	10.74	26.41	19.41	7.49	0.80	18.05	0.00
Villa 46	Bernesga Mb.	0.00	10.91	27.22	20.87	7.47	0.75	18.60	0.00
Villa 47	Bernesga Mb.	0.29	11.18	28.31	24.43	8.40	0.79	19.35	0.16
Villa 48	Bernesga Mb.	0.00	11.17	28.30	20.94	9.13	0.76	19.34	0.00
Villa 49	Bernesga Mb.	0.00	10.83	26.97	25.32	8.66	0.70	18.43	0.00
Villa 50	Bernesga Mb.	0.00	10.73	26.94	22.84	8.26	0.70	18.41	0.00

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
Villa 26	Bernesga Mb.	0.96	1.05	1.60	9.30	0.32	1.47	0.17	2.05	0.01	0.00	0.00
Villa 27	Bernesga Mb.	0.96	1.04	1.65	8.30	0.39	1.38	0.14	2.44	0.01	0.00	0.00
Villa 28	Bernesga Mb.	1.19	0.84	1.66	9.71	0.28	1.37	0.14	2.09	0.01	0.00	0.00
Villa 29	Bernesga Mb.	1.06	0.94	1.66	8.76	< D.L.	1.26	0.10	2.23	0.01	0.00	0.00
Villa 30	Bernesga Mb.	0.78	1.28	1.63	8.03	< D.L.	1.33	0.12	2.53	0.01	0.00	0.00
Villa 31	Bernesga Mb.	0.83	1.20	1.71	8.17	< D.L.	1.32	0.12	2.94	0.01	0.00	0.00
Villa 32	Bernesga Mb.	1.08	0.93	1.60	9.09	0.39	1.40	0.14	1.72	0.01	0.00	0.00
Villa 33	Bernesga Mb.	1.33	0.75	1.64	11.13	< D.L.	1.35	0.13	2.70	0.01	0.00	0.00
Villa 34	Bernesga Mb.	0.89	1.13	1.65	9.42	< D.L.	1.33	0.12	2.01	0.01	0.00	0.00
Villa 35	Bernesga Mb.	1.02	0.98	1.73	9.01	< D.L.	1.22	0.09	1.67	0.01	0.00	0.00
Villa 36	Bernesga Mb.	1.04	0.96	1.75	9.07	< D.L.	1.26	0.10	1.84	0.01	0.00	0.00
Villa 37	Bernesga Mb.	0.93	1.08	1.73	8.37	0.46	1.19	0.07	1.82	0.01	0.00	0.00
Villa 38	Bernesga Mb.	0.97	1.03	1.75	8.16	0.46	1.14	0.06	1.95	0.01	0.00	0.00
Villa 39	Bernesga Mb.	1.11	0.90	1.65	9.81	< D.L.	1.30	0.11	2.04	0.01	0.00	0.00
Villa 40	Bernesga Mb.	0.47	2.11	1.54	10.37	< D.L.	2.01	0.30	3.03	0.01	0.00	0.00
Villa 41	Bernesga Mb.	0.98	1.02	1.62	9.79	< D.L.	1.43	0.16	1.59	0.01	0.00	0.00
Villa 42	Bernesga Mb.	1.22	0.82	1.68	10.24	< D.L.	1.28	0.11	1.16	0.01	0.00	0.00
Villa 43	Bernesga Mb.	1.05	0.95	1.67	9.79	< D.L.	1.31	0.12	1.85	0.01	0.00	0.00
Villa 44	Bernesga Mb.	0.00	< D.L.	1.58	9.03	< D.L.	2.45	0.39	4.44	0.01	0.03	0.28
Villa 45	Bernesga Mb.	1.29	0.77	1.66	10.20	0.38	1.24	0.09	1.80	0.01	0.00	0.00
Villa 46	Bernesga Mb.	1.12	0.89	1.60	10.73	< D.L.	1.49	0.17	2.14	0.01	0.00	0.00
Villa 47	Bernesga Mb.	1.89	0.53	1.82	17.61	< D.L.	1.21	0.08	2.38	0.01	0.00	0.00
Villa 48	Bernesga Mb.	1.40	0.71	1.77	13.49	< D.L.	1.34	0.13	1.41	0.01	0.00	0.00
Villa 49	Bernesga Mb.	0.80	1.26	1.73	12.23	< D.L.	1.53	0.18	2.05	0.01	0.00	0.00
Villa 50	Bernesga Mb.	0.93	1.08	1.73	13.47	< D.L.	1.46	0.17	1.71	0.01	0.00	0.00

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	V (wt%)	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
Villa 26	Bernesga Mb.	0.00	0.00	0.00	8.24	0.02	7.08	11.25	382130.20	1287.90	-21.64
Villa 27	Bernesga Mb.	0.00	0.00	0.00	9.98	0.03	7.38	12.19	383558.31	1189.47	-22.02
Villa 28	Bernesga Mb.	0.00	0.00	0.00	7.59	0.03	7.21	12.25	388135.70	1061.13	-23.13
Villa 29	Bernesga Mb.	0.00	0.00	0.00	8.82	0.03	7.40	11.97	410397.57	938.10	-27.59
Villa 30	Bernesga Mb.	0.00	0.00	0.00	10.38	0.03	7.17	11.27	406653.00	1053.10	-25.21
Villa 31	Bernesga Mb.	0.00	0.00	0.00	10.53	0.03	7.21	11.92	405989.11	1053.47	-24.61
Villa 32	Bernesga Mb.	0.00	0.00	0.00	8.04	0.03	7.26	11.41	385489.51	1171.03	-22.97
Villa 33	Bernesga Mb.	0.00	0.00	0.00	5.79	0.03	7.32	11.56	395143.38	943.63	-23.07
Villa 34	Bernesga Mb.	0.00	0.00	0.00	8.73	0.03	7.38	11.69	377611.86	1148.47	-21.92
Villa 35	Bernesga Mb.	0.00	0.00	0.00	9.09	0.02	7.33	12.44	399976.41	1104.63	-23.63
Villa 36	Bernesga Mb.	0.00	0.00	0.00	9.26	0.02	7.18	12.87	386677.83	1295.37	-23.26
Villa 37	Bernesga Mb.	0.00	0.00	0.00	10.22	0.02	7.22	12.38	386270.22	1055.37	-22.90
Villa 38	Bernesga Mb.	0.00	0.00	0.00	10.32	0.02	7.55	12.47	401769.61	923.57	-25.54
Villa 39	Bernesga Mb.	0.00	0.00	0.00	8.02	0.02	7.53	12.47	383488.11	1092.73	-21.99
Villa 40	Bernesga Mb.	0.00	0.00	0.00	9.33	0.02	7.24	11.49	400029.37	1369.30	-19.97
Villa 41	Bernesga Mb.	0.00	0.00	0.00	8.47	0.02	7.37	12.33	396484.85	1238.17	-22.93
Villa 42	Bernesga Mb.	0.00	0.00	0.00	7.43	0.02	7.54	12.80	382251.26	1078.47	-22.38
Villa 43	Bernesga Mb.	0.00	0.00	0.00	8.09	0.02	7.42	12.22	395208.95	804.03	-22.85
Villa 44	Bernesga Mb.	563.60	0.04	0.06	12.72	0.02	6.67	11.48	366850.68	1343.13	-10.78
Villa 45	Bernesga Mb.	0.00	0.00	0.00	6.95	0.02	7.32	12.48	406273.46	835.53	-25.73
Villa 46	Bernesga Mb.	0.00	0.00	0.00	7.09	0.02	6.91	12.16	411500.49	1079.30	-23.40
Villa 47	Bernesga Mb.	0.00	0.00	0.00	2.81	0.02	7.45	13.39	390611.69	909.23	-23.29
Villa 48	Bernesga Mb.	0.00	0.00	0.00	5.76	0.02	7.60	14.57	400577.02	904.30	-23.43
Villa 49	Bernesga Mb.	0.00	0.00	0.00	8.48	0.02	7.36	14.13	409924.48	1192.53	-22.23
Villa 50	Bernesga Mb.	0.00	0.00	0.00	6.98	0.02	7.37	13.60	410492.80	1122.20	-23.06

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
Villa 26	Bernesga Mb.	-10.11	15.74	-1.66	0.86	94.96	95.59
Villa 27	Bernesga Mb.	-10.29	15.82	-1.79	0.85	94.80	95.48
Villa 28	Bernesga Mb.	-10.81	16.22	-2.10	0.84	95.00	95.62
Villa 29	Bernesga Mb.	-12.89	18.01	-3.22	0.80	95.43	95.96
Villa 30	Bernesga Mb.	-11.78	17.35	-2.46	0.83	95.09	95.71
Villa 31	Bernesga Mb.	-11.50	17.23	-2.25	0.84	94.88	95.55
Villa 32	Bernesga Mb.	-10.73	16.06	-2.11	0.84	95.09	95.69
Villa 33	Bernesga Mb.	-10.78	16.31	-2.02	0.84	94.86	95.52
Villa 34	Bernesga Mb.	-10.24	15.51	-1.91	0.84	94.72	95.42
Villa 35	Bernesga Mb.	-11.04	16.46	-2.21	0.83	94.52	95.28
Villa 36	Bernesga Mb.	-10.87	16.09	-2.23	0.83	94.73	95.43
Villa 37	Bernesga Mb.	-10.70	15.85	-2.19	0.83	94.41	95.20
Villa 38	Bernesga Mb.	-11.93	17.05	-2.78	0.81	94.66	95.38
Villa 39	Bernesga Mb.	-10.28	15.59	-1.90	0.84	94.59	95.32
Villa 40	Bernesga Mb.	-9.33	17.25	-0.07	0.99	95.34	95.89
Villa 41	Bernesga Mb.	-10.71	16.28	-1.97	0.84	95.08	95.69
Villa 42	Bernesga Mb.	-10.46	15.44	-2.17	0.83	94.79	95.46
Villa 43	Bernesga Mb.	-10.68	16.11	-2.03	0.84	94.72	95.42
Villa 44	Bernesga Mb.	-5.04	15.32	3.19	2.73	94.36	95.16
Villa 45	Bernesga Mb.	-12.03	17.00	-2.90	0.81	95.17	95.76
Villa 46	Bernesga Mb.	-10.93	16.61	-2.01	0.84	95.26	95.83
Villa 47	Bernesga Mb.	-10.88	16.25	-2.15	0.83	94.46	95.24
Villa 48	Bernesga Mb.	-10.95	16.29	-2.20	0.83	94.98	95.62
Villa 49	Bernesga Mb.	-10.39	16.65	-1.45	0.88	94.98	95.61
Villa 50	Bernesga Mb.	-10.78	16.80	-1.75	0.86	95.00	95.63

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
Villa 26	Bernesga Mb.	84.91	4.69	-1.29	4.72
Villa 27	Bernesga Mb.	84.47	4.53	-0.92	4.56
Villa 28	Bernesga Mb.	84.95	5.01	-0.91	5.04
Villa 29	Bernesga Mb.	85.95	6.52	-0.52	6.55
Villa 30	Bernesga Mb.	85.08	5.94	-0.59	5.97
Villa 31	Bernesga Mb.	84.53	6.19	-0.05	6.22
Villa 32	Bernesga Mb.	85.23	4.74	-1.22	4.77
Villa 33	Bernesga Mb.	84.57	5.10	-0.62	5.13
Villa 34	Bernesga Mb.	84.31	4.20	-0.81	4.23
Villa 35	Bernesga Mb.	83.68	4.83	-0.02	4.87
Villa 36	Bernesga Mb.	84.26	4.37	-0.70	4.40
Villa 37	Bernesga Mb.	83.47	4.02	-0.27	4.05
Villa 38	Bernesga Mb.	83.96	5.04	0.16	5.07
Villa 39	Bernesga Mb.	83.96	4.38	-0.40	4.41
Villa 40	Bernesga Mb.	85.77	8.14	-1.37	8.18
Villa 41	Bernesga Mb.	85.16	5.02	-1.15	5.06
Villa 42	Bernesga Mb.	84.49	3.83	-0.92	3.86
Villa 43	Bernesga Mb.	84.23	4.85	-0.41	4.89
Villa 44	Bernesga Mb.	83.41	7.87	-1.69	7.89
Villa 45	Bernesga Mb.	85.34	5.50	-0.56	5.53
Villa 46	Bernesga Mb.	85.63	5.97	-1.07	6.00
Villa 47	Bernesga Mb.	83.55	4.63	0.01	4.66
Villa 48	Bernesga Mb.	84.91	5.01	-0.72	5.04
Villa 49	Bernesga Mb.	84.85	5.97	-0.80	6.00
Villa 50	Bernesga Mb.	84.88	5.72	-0.84	5.75

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
Villa 26	Bernesga Mb.	0.11	4.85	-43.36	0.84
Villa 27	Bernesga Mb.	0.53	4.83	-43.56	0.84
Villa 28	Bernesga Mb.	0.52	4.85	-43.74	0.85
Villa 29	Bernesga Mb.	0.94	4.86	-45.39	0.87
Villa 30	Bernesga Mb.	0.91	4.85	-46.18	0.85
Villa 31	Bernesga Mb.	1.50	4.81	-46.98	0.85
Villa 32	Bernesga Mb.	0.17	4.85	-42.97	0.85
Villa 33	Bernesga Mb.	0.85	4.78	-44.90	0.84
Villa 34	Bernesga Mb.	0.63	4.85	-42.52	0.84
Villa 35	Bernesga Mb.	1.55	4.82	-45.77	0.85
Villa 36	Bernesga Mb.	0.79	4.92	-43.48	0.85
Villa 37	Bernesga Mb.	1.28	4.91	-43.75	0.85
Villa 38	Bernesga Mb.	1.76	4.88	-45.41	0.86
Villa 39	Bernesga Mb.	1.08	4.77	-43.49	0.84
Villa 40	Bernesga Mb.	0.06	4.61	-49.90	0.80
Villa 41	Bernesga Mb.	0.26	4.74	-44.54	0.84
Villa 42	Bernesga Mb.	0.50	4.79	-42.10	0.85
Villa 43	Bernesga Mb.	1.08	4.75	-44.86	0.84
Villa 44	Bernesga Mb.	-0.18	4.69	-52.31	0.73
Villa 45	Bernesga Mb.	0.90	4.79	-44.69	0.86
Villa 46	Bernesga Mb.	0.33	4.67	-46.33	0.84
Villa 47	Bernesga Mb.	1.58	4.85	-44.80	0.85
Villa 48	Bernesga Mb.	0.73	4.67	-44.73	0.85
Villa 49	Bernesga Mb.	0.67	4.62	-47.68	0.83
Villa 50	Bernesga Mb.	0.64	4.67	-47.19	0.84

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
Villa 26	Bernesga Mb.	4.85	0.46	4.00	4.00	1.00	0.00	9.00
Villa 27	Bernesga Mb.	4.57	0.46	4.00	4.00	1.00	0.00	9.00
Villa 28	Bernesga Mb.	4.58	0.44	4.00	4.00	4.00	0.00	12.00
Villa 29	Bernesga Mb.	4.22	0.40	4.00	4.00	1.00	0.00	9.00
Villa 30	Bernesga Mb.	4.74	0.43	4.00	4.00	1.00	0.00	9.00
Villa 31	Bernesga Mb.	4.85	0.44	4.00	4.00	4.00	0.00	12.00
Villa 32	Bernesga Mb.	4.47	0.44	4.00	4.00	1.00	0.00	9.00
Villa 33	Bernesga Mb.	4.60	0.45	4.00	4.00	1.00	0.00	9.00
Villa 34	Bernesga Mb.	4.37	0.46	4.00	4.00	1.00	0.00	9.00
Villa 35	Bernesga Mb.	4.50	0.46	4.00	4.00	1.00	0.00	9.00
Villa 36	Bernesga Mb.	4.43	0.45	4.00	4.00	1.00	0.00	9.00
Villa 37	Bernesga Mb.	4.35	0.46	4.00	4.00	1.00	0.00	9.00
Villa 38	Bernesga Mb.	4.14	0.44	4.00	4.00	1.00	0.00	9.00
Villa 39	Bernesga Mb.	4.30	0.46	4.00	4.00	1.00	0.00	9.00
Villa 40	Bernesga Mb.	6.65	0.49	4.00	4.00	1.00	0.00	9.00
Villa 41	Bernesga Mb.	4.60	0.45	4.00	4.00	1.00	0.00	9.00
Villa 42	Bernesga Mb.	4.03	0.45	4.00	4.00	1.00	0.00	9.00
Villa 43	Bernesga Mb.	4.46	0.45	4.00	4.00	1.00	0.00	9.00
Villa 44	Bernesga Mb.	9.42	0.64	4.00	4.00	4.00	0.00	12.00
Villa 45	Bernesga Mb.	4.15	0.41	4.00	4.00	1.00	0.00	9.00
Villa 46	Bernesga Mb.	5.01	0.43	4.00	4.00	1.00	0.00	9.00
Villa 47	Bernesga Mb.	4.39	0.46	4.00	4.00	4.00	0.00	12.00
Villa 48	Bernesga Mb.	4.28	0.44	4.00	4.00	1.00	0.00	9.00
Villa 49	Bernesga Mb.	5.17	0.47	4.00	4.00	1.00	0.00	9.00
Villa 50	Bernesga Mb.	4.97	0.46	4.00	4.00	1.00	0.00	9.00

5.3 Villa 51 - 75

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
Villa 51	Bernesga Mb.	52.98	36.02	42.22	131.22	78.24
Villa 52	Bernesga Mb.	71.09	35.53	45.48	152.10	81.01
Villa 53	Bernesga Mb.	81.99	14.66	39.20	135.84	53.85
Villa 54	Bernesga Mb.	62.75	39.42	43.53	145.71	82.95
Villa 55	Bernesga Mb.	67.88	37.06	45.24	150.18	82.29
Villa 56	Bernesga Mb.	70.56	36.42	43.08	150.05	79.49
Villa 57	Bernesga Mb.	64.40	17.68	41.64	123.73	59.32
Villa 58	Bernesga Mb.	63.56	27.03	39.94	130.53	66.97
Villa 59	Bernesga Mb.	63.51	25.84	39.99	129.34	65.83
Villa 60	Bernesga Mb.	55.86	26.71	39.19	121.76	65.90
Villa 61	Bernesga Mb.	73.39	16.60	38.88	128.87	55.48
Villa 62	Bernesga Mb.	0.00	0.00	41.72	41.72	41.72
Villa 63	Bernesga Mb.	0.00	30.62	42.49	73.12	73.12
Villa 64	Bernesga Mb.	0.00	26.79	45.22	72.01	72.01
Villa 65	Bernesga Mb.	0.00	32.39	43.10	75.49	75.49
Villa 66	Bernesga Mb.	0.00	27.76	50.18	77.94	77.94
Villa 67	Bernesga Mb.	0.00	30.27	47.37	77.64	77.64
Villa 68	Bernesga Mb.	0.00	30.83	47.73	78.56	78.56
Villa 69	Bernesga Mb.	0.00	35.94	48.18	84.12	84.12
Villa 70	Bernesga Mb.	80.41	34.42	46.25	161.08	80.66
Villa 71	Bernesga Mb.	52.55	27.86	41.74	122.15	69.60
Villa 72	Bernesga Mb.	0.00	0.00	36.57	36.57	36.57
Villa 73	Bernesga Mb.	0.00	32.39	42.19	74.57	74.57
Villa 74	Bernesga Mb.	0.00	19.88	39.17	59.05	59.05
Villa 75	Bernesga Mb.	0.00	13.16	39.87	53.03	53.03

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
Villa 51	Bernesga Mb.	63.36	56.72	63.49	183.57	120.21
Villa 52	Bernesga Mb.	85.01	55.95	68.39	209.35	124.34
Villa 53	Bernesga Mb.	98.04	23.08	58.94	180.06	82.02
Villa 54	Bernesga Mb.	75.04	62.08	65.46	202.58	127.54
Villa 55	Bernesga Mb.	81.17	58.36	68.02	207.56	126.38
Villa 56	Bernesga Mb.	84.37	57.35	64.78	206.50	122.12
Villa 57	Bernesga Mb.	77.01	27.84	62.62	167.48	90.46
Villa 58	Bernesga Mb.	76.00	42.57	60.05	178.63	102.63
Villa 59	Bernesga Mb.	75.95	40.69	60.14	176.78	100.83
Villa 60	Bernesga Mb.	66.80	42.07	58.93	167.80	101.00
Villa 61	Bernesga Mb.	87.76	26.15	58.46	172.37	84.61
Villa 62	Bernesga Mb.	0.00	0.00	62.74	62.74	62.74
Villa 63	Bernesga Mb.	0.00	48.23	63.90	112.13	112.13
Villa 64	Bernesga Mb.	0.00	42.19	68.00	110.19	110.19
Villa 65	Bernesga Mb.	0.00	51.01	64.81	115.83	115.83
Villa 66	Bernesga Mb.	0.00	43.72	75.45	119.17	119.17
Villa 67	Bernesga Mb.	0.00	47.67	71.24	118.91	118.91
Villa 68	Bernesga Mb.	0.00	48.55	71.77	120.32	120.32
Villa 69	Bernesga Mb.	0.00	56.60	72.45	129.05	129.05
Villa 70	Bernesga Mb.	96.16	54.20	69.54	219.90	123.74
Villa 71	Bernesga Mb.	62.84	43.88	62.76	169.48	106.64
Villa 72	Bernesga Mb.	0.00	0.00	54.99	54.99	54.99
Villa 73	Bernesga Mb.	0.00	51.00	63.44	114.44	114.44
Villa 74	Bernesga Mb.	0.00	31.31	58.90	90.21	90.21
Villa 75	Bernesga Mb.	0.00	20.72	59.95	80.67	80.67

Sample	Formation	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al2O3*5	10Al2O3
Villa 51	Bernesga Mb.	79.20	158.40	3.19	2.52	3.37	34.93	6.75	147.92	295.83
Villa 52	Bernesga Mb.	106.27	212.53	5.96	3.68	4.93	34.14	6.15	142.00	283.99
Villa 53	Bernesga Mb.	122.55	245.10	10.33	4.25	5.69	33.44	8.67	142.28	284.55
Villa 54	Bernesga Mb.	93.80	187.60	4.21	3.19	4.27	36.27	6.68	153.83	307.66
Villa 55	Bernesga Mb.	101.47	202.93	5.28	3.50	4.69	33.18	6.55	137.36	274.72
Villa 56	Bernesga Mb.	105.47	210.93	5.77	3.65	4.89	35.70	6.73	151.23	302.46
Villa 57	Bernesga Mb.	96.27	192.53	7.31	3.29	4.41	37.03	9.14	158.75	317.51
Villa 58	Bernesga Mb.	95.00	190.00	5.95	3.24	4.34	32.92	7.49	139.22	278.44
Villa 59	Bernesga Mb.	94.93	189.87	6.10	3.23	4.33	34.16	7.44	145.38	290.77
Villa 60	Bernesga Mb.	83.50	167.00	4.84	2.72	3.65	36.18	7.68	155.99	311.98
Villa 61	Bernesga Mb.	109.70	219.40	8.79	3.81	5.10	35.99	8.35	155.20	310.39
Villa 62	Bernesga Mb.	0.00	0.00	0.00	< D.L.	< D.L.	37.35	10.22	160.32	320.65
Villa 63	Bernesga Mb.	0.00	0.00	-4.02	< D.L.	< D.L.	34.76	6.73	146.92	293.83
Villa 64	Bernesga Mb.	0.00	0.00	-3.52	< D.L.	< D.L.	36.88	7.19	155.86	311.73
Villa 65	Bernesga Mb.	0.00	0.00	-4.25	< D.L.	< D.L.	35.25	6.86	148.97	297.94
Villa 66	Bernesga Mb.	0.00	0.00	-3.64	< D.L.	< D.L.	35.99	7.17	148.46	296.92
Villa 67	Bernesga Mb.	0.00	0.00	-3.97	< D.L.	< D.L.	37.02	7.36	155.28	310.55
Villa 68	Bernesga Mb.	0.00	0.00	-4.05	< D.L.	< D.L.	36.73	7.55	153.63	307.26
Villa 69	Bernesga Mb.	0.00	0.00	-4.72	< D.L.	< D.L.	34.09	6.83	140.12	280.24
Villa 70	Bernesga Mb.	120.20	240.40	7.50	4.17	5.59	34.16	6.84	141.66	283.31
Villa 71	Bernesga Mb.	78.55	157.10	4.20	2.48	3.33	33.89	7.70	143.02	286.04
Villa 72	Bernesga Mb.	0.00	0.00	0.00	< D.L.	< D.L.	34.19	14.49	147.60	295.21
Villa 73	Bernesga Mb.	0.00	0.00	-4.25	< D.L.	< D.L.	36.77	7.23	157.15	314.30
Villa 74	Bernesga Mb.	0.00	0.00	-2.61	< D.L.	< D.L.	34.73	8.58	148.73	297.46
Villa 75	Bernesga Mb.	0.00	0.00	-1.73	< D.L.	< D.L.	35.60	9.13	152.65	305.30

Sample	Formation	15Al2O3	Al2O3/10	K2O *5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	200TiO2	300TiO2	K2O/Al2O3
Villa 51	Bernesga Mb.	443.75	2.96	19.84	0.00	14.81	-2265.45	3.69	4.74	243.83	365.75	0.13
Villa 52	Bernesga Mb.	425.99	2.84	21.37	0.00	11.90	-2910.18	3.47	4.46	240.00	360.00	0.15
Villa 53	Bernesga Mb.	426.83	2.85	18.42	0.00	11.49	14924.89	5.26	6.76	218.60	327.91	0.13
Villa 54	Bernesga Mb.	461.50	3.08	20.46	0.00	17.22	-6029.80	3.47	4.46	236.18	354.27	0.13
Villa 55	Bernesga Mb.	412.07	2.75	21.26	0.00	15.88	-1625.17	3.47	4.47	235.26	352.88	0.15
Villa 56	Bernesga Mb.	453.69	3.02	20.24	0.00	15.43	-3759.91	3.63	4.66	243.04	364.56	0.13
Villa 57	Bernesga Mb.	476.26	3.18	19.57	0.00	15.61	11032.68	5.30	6.82	231.15	346.73	0.12
Villa 58	Bernesga Mb.	417.66	2.78	18.77	0.00	13.12	6388.08	4.32	5.56	244.46	366.70	0.13
Villa 59	Bernesga Mb.	436.15	2.91	18.79	0.00	13.76	3921.37	4.24	5.45	244.14	366.22	0.13
Villa 60	Bernesga Mb.	467.97	3.12	18.42	0.00	14.81	2086.10	4.34	5.58	244.85	367.27	0.12
Villa 61	Bernesga Mb.	465.59	3.10	18.27	0.00	11.81	9036.65	5.01	6.45	240.46	360.70	0.12
Villa 62	Bernesga Mb.	480.97	3.21	19.61	0.00	12.14	20532.15	6.30	8.10	229.19	343.78	0.12
Villa 63	Bernesga Mb.	440.75	2.94	19.97	0.00	12.49	-536.26	3.83	4.93	247.00	370.50	0.14
Villa 64	Bernesga Mb.	467.59	3.12	21.25	0.00	13.68	-543.46	4.07	5.24	242.38	363.57	0.14
Villa 65	Bernesga Mb.	446.91	2.98	20.25	0.00	13.70	-1016.17	3.84	4.94	245.96	368.95	0.14
Villa 66	Bernesga Mb.	445.37	2.97	23.58	0.00	14.47	721.16	4.00	5.15	228.95	343.42	0.16
Villa 67	Bernesga Mb.	465.83	3.11	22.26	0.00	14.20	492.44	4.16	5.35	240.14	360.22	0.14
Villa 68	Bernesga Mb.	460.88	3.07	22.43	0.00	16.82	355.50	4.10	5.28	230.41	345.61	0.15
Villa 69	Bernesga Mb.	420.35	2.80	22.64	0.00	12.97	1606.13	3.87	4.98	236.07	354.10	0.16
Villa 70	Bernesga Mb.	424.97	2.83	21.73	0.00	14.69	85.93	3.76	4.83	238.20	357.31	0.15
Villa 71	Bernesga Mb.	429.06	2.86	19.61	0.00	15.31	5322.79	4.32	5.55	230.07	345.11	0.14
Villa 72	Bernesga Mb.	442.81	2.95	17.18	0.42	12.05	53839.88	9.29	11.95	214.22	321.33	0.12
Villa 73	Bernesga Mb.	471.45	3.14	19.83	0.00	14.79	-1337.05	4.02	5.18	247.05	370.57	0.13
Villa 74	Bernesga Mb.	446.19	2.97	18.41	0.00	13.03	11531.31	5.09	6.55	240.64	360.96	0.12
Villa 75	Bernesga Mb.	457.96	3.05	18.74	0.00	12.98	14406.32	5.48	7.05	235.84	353.77	0.12

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
Villa 51	Bernesga Mb.	-0.87	0.05	0.72	0.25	0.35	2.88	-0.46	21.44
Villa 52	Bernesga Mb.	-0.82	0.04	0.70	0.26	0.34	2.92	-0.47	19.38
Villa 53	Bernesga Mb.	-0.89	0.04	0.88	0.27	0.35	2.83	-0.45	21.86
Villa 54	Bernesga Mb.	-0.88	0.06	0.70	0.24	0.35	2.89	-0.46	21.75
Villa 55	Bernesga Mb.	-0.81	0.06	0.70	0.26	0.34	2.91	-0.46	18.83
Villa 56	Bernesga Mb.	-0.87	0.05	0.71	0.25	0.35	2.89	-0.46	21.57
Villa 57	Bernesga Mb.	-0.91	0.05	0.88	0.21	0.35	2.87	-0.46	23.26
Villa 58	Bernesga Mb.	-0.87	0.05	0.79	0.25	0.35	2.84	-0.45	21.08
Villa 59	Bernesga Mb.	-0.89	0.05	0.78	0.25	0.35	2.84	-0.45	21.99
Villa 60	Bernesga Mb.	-0.93	0.05	0.79	0.22	0.35	2.83	-0.45	23.97
Villa 61	Bernesga Mb.	-0.93	0.04	0.86	0.20	0.35	2.83	-0.45	24.00
Villa 62	Bernesga Mb.	-0.91	0.04	0.95	0.19	0.35	2.87	-0.46	23.45
Villa 63	Bernesga Mb.	-0.87	0.04	0.74	0.22	0.35	2.88	-0.46	21.18
Villa 64	Bernesga Mb.	-0.87	0.04	0.76	0.22	0.34	2.91	-0.46	21.38
Villa 65	Bernesga Mb.	-0.87	0.05	0.74	0.23	0.35	2.89	-0.46	21.23
Villa 66	Bernesga Mb.	-0.80	0.05	0.76	0.24	0.34	2.97	-0.47	18.71
Villa 67	Bernesga Mb.	-0.84	0.05	0.77	0.22	0.34	2.94	-0.47	20.51
Villa 68	Bernesga Mb.	-0.84	0.05	0.77	0.23	0.34	2.94	-0.47	20.17
Villa 69	Bernesga Mb.	-0.79	0.05	0.74	0.25	0.34	2.95	-0.47	18.25
Villa 70	Bernesga Mb.	-0.81	0.05	0.73	0.25	0.34	2.93	-0.47	19.08
Villa 71	Bernesga Mb.	-0.86	0.05	0.79	0.26	0.35	2.87	-0.46	20.92
Villa 72	Bernesga Mb.	-0.93	0.04	1.12	0.20	0.36	2.79	-0.45	20.48
Villa 73	Bernesga Mb.	-0.90	0.05	0.76	0.23	0.35	2.87	-0.46	22.79
Villa 74	Bernesga Mb.	-0.91	0.04	0.86	0.23	0.35	2.83	-0.45	22.87
Villa 75	Bernesga Mb.	-0.91	0.04	0.89	0.21	0.35	2.84	-0.45	23.15

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
Villa 51	Bernesga Mb.	1.38	5.35	6.75	1.77	0.25	0.57	0.18	42.78	0.01
Villa 52	Bernesga Mb.	1.47	5.74	6.15	1.82	0.26	0.55	0.17	44.21	0.01
Villa 53	Bernesga Mb.	1.30	4.99	8.67	1.86	0.27	0.54	0.26	36.74	0.00
Villa 54	Bernesga Mb.	1.41	5.51	6.68	1.72	0.24	0.58	0.16	41.42	0.01
Villa 55	Bernesga Mb.	1.46	5.71	6.55	1.82	0.26	0.55	0.18	41.52	0.01
Villa 56	Bernesga Mb.	1.40	5.45	6.73	1.77	0.25	0.57	0.17	41.55	0.01
Villa 57	Bernesga Mb.	1.37	5.28	9.14	1.63	0.21	0.61	0.24	40.48	0.00
Villa 58	Bernesga Mb.	1.32	5.07	7.49	1.78	0.25	0.56	0.22	41.95	0.01
Villa 59	Bernesga Mb.	1.32	5.08	7.44	1.77	0.25	0.57	0.21	41.54	0.01
Villa 60	Bernesga Mb.	1.30	4.98	7.68	1.65	0.22	0.61	0.20	41.68	0.01
Villa 61	Bernesga Mb.	1.29	4.95	8.35	1.58	0.20	0.63	0.23	42.06	0.01
Villa 62	Bernesga Mb.	1.37	5.29	10.22	1.56	0.19	0.64	0.28	38.23	0.00
Villa 63	Bernesga Mb.	1.39	5.38	6.73	1.67	0.22	0.60	0.19	41.20	0.01
Villa 64	Bernesga Mb.	1.46	5.71	7.19	1.65	0.22	0.61	0.19	39.90	0.00
Villa 65	Bernesga Mb.	1.40	5.45	6.86	1.69	0.23	0.59	0.18	42.79	0.01
Villa 66	Bernesga Mb.	1.59	6.30	7.17	1.74	0.24	0.57	0.19	39.32	0.00
Villa 67	Bernesga Mb.	1.51	5.97	7.36	1.66	0.22	0.60	0.19	40.17	0.00
Villa 68	Bernesga Mb.	1.52	6.01	7.55	1.69	0.23	0.59	0.19	42.35	0.01
Villa 69	Bernesga Mb.	1.54	6.06	6.83	1.78	0.25	0.56	0.20	42.21	0.01
Villa 70	Bernesga Mb.	1.49	5.83	6.84	1.77	0.25	0.56	0.19	41.94	0.01
Villa 71	Bernesga Mb.	1.37	5.29	7.70	1.81	0.26	0.55	0.22	40.71	0.00
Villa 72	Bernesga Mb.	1.44	4.88	14.49	1.57	0.20	0.64	0.45	37.23	0.00
Villa 73	Bernesga Mb.	1.38	5.34	7.23	1.71	0.23	0.58	0.18	41.93	0.01
Villa 74	Bernesga Mb.	1.30	4.98	8.58	1.70	0.23	0.59	0.24	40.93	0.00
Villa 75	Bernesga Mb.	1.32	5.07	9.13	1.62	0.21	0.62	0.26	40.46	0.00

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Ti Cal (ppm)	Zr/Sc	Cr/Th	Th/Sc
Villa 51	Bernesga Mb.	24.27	0.06	353.88	0.64	190.82	0.40	0.69	1.11	< D.L.	6.96	4.73	7307.76	5.34	8.20	0.53
Villa 52	Bernesga Mb.	23.67	0.06	345.00	0.81	201.71	0.33	0.69	1.13	< D.L.	10.00	4.66	7192.94	6.50	9.39	0.66
Villa 53	Bernesga Mb.	26.03	0.06	352.71	0.76	168.07	0.43	0.68	1.31	< D.L.	< D.L.	1.92	6551.65	< D.L.	15.99	< D.L.
Villa 54	Bernesga Mb.	26.05	0.06	344.68	0.39	230.18	0.59	0.74	1.05	< D.L.	< D.L.	5.17	7078.49	< D.L.	8.06	< D.L.
Villa 55	Bernesga Mb.	23.35	0.06	350.11	0.37	227.49	0.53	0.71	1.07	< D.L.	< D.L.	4.86	7050.74	< D.L.	8.64	< D.L.
Villa 56	Bernesga Mb.	24.89	0.06	353.62	0.71	177.58	0.29	0.72	1.17	< D.L.	< D.L.	4.78	7284.09	< D.L.	8.43	< D.L.
Villa 57	Bernesga Mb.	27.47	0.05	286.31	0.65	193.25	0.43	0.70	1.20	< D.L.	< D.L.	2.32	6927.79	< D.L.	15.93	< D.L.
Villa 58	Bernesga Mb.	22.78	0.06	366.96	0.59	187.53	0.42	0.70	1.16	< D.L.	< D.L.	3.55	7326.71	< D.L.	10.35	< D.L.
Villa 59	Bernesga Mb.	23.82	0.06	372.59	0.73	197.48	0.44	0.74	1.18	< D.L.	< D.L.	3.39	7317.12	< D.L.	11.42	< D.L.
Villa 60	Bernesga Mb.	25.48	0.07	394.27	0.57	181.31	0.35	0.72	1.31	< D.L.	< D.L.	3.51	7338.22	< D.L.	10.49	< D.L.
Villa 61	Bernesga Mb.	25.82	0.06	357.40	0.71	208.75	0.47	0.74	1.32	< D.L.	< D.L.	2.18	7206.78	< D.L.	17.32	< D.L.
Villa 62	Bernesga Mb.	27.98	0.06	365.66	0.76	206.04	0.42	0.78	1.40	< D.L.	< D.L.	0.00	6868.84	< D.L.	< D.L.	< D.L.
Villa 63	Bernesga Mb.	23.79	0.06	369.81	0.68	200.96	0.39	0.76	1.19	< D.L.	< D.L.	4.02	7402.70	< D.L.	10.40	< D.L.
Villa 64	Bernesga Mb.	25.72	0.07	405.69	0.62	190.29	0.35	0.75	1.04	< D.L.	< D.L.	3.52	7264.19	< D.L.	12.10	< D.L.
Villa 65	Bernesga Mb.	24.23	0.06	378.92	0.60	201.38	0.42	0.71	1.08	< D.L.	< D.L.	4.25	7371.67	< D.L.	9.62	< D.L.
Villa 66	Bernesga Mb.	25.94	0.06	347.77	0.83	169.17	0.35	0.59	0.92	< D.L.	< D.L.	3.64	6861.59	< D.L.	9.94	< D.L.
Villa 67	Bernesga Mb.	25.86	0.06	363.83	0.75	207.70	0.48	0.69	0.98	< D.L.	< D.L.	3.97	7197.21	< D.L.	10.32	< D.L.
Villa 68	Bernesga Mb.	26.67	0.06	348.49	0.41	186.87	0.48	0.55	0.91	< D.L.	8.13	4.05	6905.37	6.22	8.55	0.57
Villa 69	Bernesga Mb.	23.74	0.06	363.54	0.81	195.12	0.45	0.59	0.95	< D.L.	< D.L.	4.72	7075.09	< D.L.	7.96	< D.L.
Villa 70	Bernesga Mb.	23.79	0.06	356.97	0.62	205.90	0.50	0.64	0.98	< D.L.	< D.L.	4.52	7139.08	< D.L.	8.67	< D.L.
Villa 71	Bernesga Mb.	24.87	0.06	376.82	0.62	201.80	0.55	0.67	1.08	< D.L.	7.29	3.66	6895.44	6.04	9.72	0.46
Villa 72	Bernesga Mb.	27.56	0.06	361.76	0.39	188.89	0.62	0.71	1.24	< D.L.	< D.L.	0.00	6420.25	< D.L.	< D.L.	< D.L.
Villa 73	Bernesga Mb.	25.44	0.06	385.18	0.92	182.10	0.35	0.72	1.06	< D.L.	< D.L.	4.25	7404.18	< D.L.	9.38	< D.L.
Villa 74	Bernesga Mb.	24.72	0.06	376.05	0.69	177.97	0.39	0.73	1.18	< D.L.	< D.L.	2.61	7212.01	< D.L.	13.96	< D.L.
Villa 75	Bernesga Mb.	25.89	0.06	378.80	0.53	185.38	0.39	0.81	1.08	< D.L.	< D.L.	1.73	7068.32	< D.L.	23.57	< D.L.

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
Villa 51	Bernesga Mb.	0.85	1.18	0.02	6.97	1.24	2.10	< D.L.	0.62	1.61
Villa 52	Bernesga Mb.	0.73	1.36	0.02	6.65	1.06	1.89	< D.L.	0.62	1.63
Villa 53	Bernesga Mb.	1.10	0.91	0.02	8.02	1.61	3.41	< D.L.	0.52	1.93
Villa 54	Bernesga Mb.	0.88	1.14	0.02	7.25	1.19	1.63	< D.L.	0.70	1.43
Villa 55	Bernesga Mb.	0.81	1.23	0.02	7.11	1.14	1.85	< D.L.	0.66	1.51
Villa 56	Bernesga Mb.	0.91	1.10	0.02	7.40	1.26	1.71	< D.L.	0.61	1.63
Villa 57	Bernesga Mb.	0.90	1.11	0.02	5.91	1.29	2.85	< D.L.	0.58	1.71
Villa 58	Bernesga Mb.	0.86	1.17	0.02	6.76	1.23	2.55	< D.L.	0.60	1.66
Villa 59	Bernesga Mb.	0.85	1.18	0.02	6.74	1.14	2.34	< D.L.	0.63	1.59
Villa 60	Bernesga Mb.	0.80	1.26	0.02	6.57	1.11	1.83	< D.L.	0.55	1.82
Villa 61	Bernesga Mb.	0.82	1.22	0.02	6.25	1.11	2.87	< D.L.	0.56	1.80
Villa 62	Bernesga Mb.	0.82	1.23	0.02	6.51	1.04	3.34	0.47	0.56	1.79
Villa 63	Bernesga Mb.	0.79	1.27	0.02	6.46	1.03	1.76	< D.L.	0.64	1.56
Villa 64	Bernesga Mb.	0.73	1.38	0.02	6.87	0.96	2.22	< D.L.	0.72	1.38
Villa 65	Bernesga Mb.	0.72	1.38	0.02	6.46	1.02	1.77	< D.L.	0.65	1.53
Villa 66	Bernesga Mb.	0.65	1.54	0.02	6.09	1.11	1.85	< D.L.	0.64	1.57
Villa 67	Bernesga Mb.	0.72	1.38	0.02	6.53	1.05	2.37	< D.L.	0.70	1.43
Villa 68	Bernesga Mb.	0.70	1.44	0.02	6.68	1.27	2.42	< D.L.	0.60	1.67
Villa 69	Bernesga Mb.	0.76	1.32	0.02	7.44	1.29	2.11	< D.L.	0.62	1.62
Villa 70	Bernesga Mb.	0.74	1.34	0.02	6.78	1.15	2.24	< D.L.	0.66	1.52
Villa 71	Bernesga Mb.	0.90	1.12	0.02	7.82	1.34	2.35	< D.L.	0.62	1.62
Villa 72	Bernesga Mb.	0.93	1.07	0.02	6.71	1.31	4.79	< D.L.	0.57	1.75
Villa 73	Bernesga Mb.	0.81	1.23	0.02	7.03	1.13	2.15	< D.L.	0.68	1.48
Villa 74	Bernesga Mb.	0.83	1.21	0.02	6.49	1.14	3.08	< D.L.	0.62	1.62
Villa 75	Bernesga Mb.	0.80	1.26	0.02	6.47	0.99	3.10	< D.L.	0.75	1.34

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
Villa 51	Bernesga Mb.	0.85	0.51	11.99	2.71	0.00	1.73	4.76	7.43
Villa 52	Bernesga Mb.	1.18	0.71	14.20	2.69	0.00	2.19	4.68	8.74
Villa 53	Bernesga Mb.	1.80	0.81	11.79	4.36	0.00	3.30	5.04	6.12
Villa 54	Bernesga Mb.	0.91	0.58	10.95	3.27	0.00	1.27	6.45	7.68
Villa 55	Bernesga Mb.	0.91	0.70	13.05	3.98	0.00	1.47	6.98	8.67
Villa 56	Bernesga Mb.	0.85	0.66	12.32	2.68	0.00	1.89	3.54	7.55
Villa 57	Bernesga Mb.	1.60	0.57	11.29	3.62	0.00	2.36	4.90	6.60
Villa 58	Bernesga Mb.	1.33	0.64	12.39	3.78	0.00	2.24	5.25	7.47
Villa 59	Bernesga Mb.	1.30	0.62	11.98	3.30	0.00	2.41	5.28	7.55
Villa 60	Bernesga Mb.	1.28	0.51	12.17	3.11	0.00	1.76	4.30	6.68
Villa 61	Bernesga Mb.	1.54	0.67	12.38	3.67	0.00	2.61	5.81	6.89
Villa 62	Bernesga Mb.	1.97	0.00	12.37	3.43	0.00	2.62	5.23	6.91
Villa 63	Bernesga Mb.	0.82	0.00	12.56	2.51	0.00	1.71	4.86	8.06
Villa 64	Bernesga Mb.	0.93	0.00	10.71	2.89	0.00	1.80	3.80	7.73
Villa 65	Bernesga Mb.	0.92	0.00	11.88	2.69	0.00	1.61	4.99	7.78
Villa 66	Bernesga Mb.	1.14	0.00	10.87	3.25	0.00	2.68	3.85	6.91
Villa 67	Bernesga Mb.	1.17	0.00	10.71	2.81	0.00	2.11	5.16	7.48
Villa 68	Bernesga Mb.	1.04	0.00	10.62	4.42	0.00	1.81	5.11	6.38
Villa 69	Bernesga Mb.	1.09	0.00	12.26	3.11	0.00	2.51	5.57	7.59
Villa 70	Bernesga Mb.	1.11	0.80	11.88	2.94	0.00	1.81	5.90	7.84
Villa 71	Bernesga Mb.	1.36	0.52	11.42	3.17	0.00	1.98	6.29	7.04
Villa 72	Bernesga Mb.	2.92	0.00	10.14	7.36	0.00	2.87	6.28	5.81
Villa 73	Bernesga Mb.	1.45	0.00	10.62	2.60	0.00	2.41	3.76	7.19
Villa 74	Bernesga Mb.	1.38	0.00	11.26	3.15	0.00	2.16	4.36	6.94
Villa 75	Bernesga Mb.	1.74	0.00	10.13	3.69	0.00	1.96	3.92	7.56

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
Villa 51	Bernesga Mb.	0.00	11.26	28.70	22.79	9.20	0.72	19.61	0.00
Villa 52	Bernesga Mb.	0.00	11.84	29.35	23.81	9.23	0.75	20.06	0.00
Villa 53	Bernesga Mb.	0.00	11.49	30.01	30.63	9.89	0.70	20.51	0.00
Villa 54	Bernesga Mb.	0.00	10.80	27.65	16.92	9.15	0.63	18.89	0.00
Villa 55	Bernesga Mb.	0.00	12.11	32.27	22.41	9.85	0.65	22.05	0.00
Villa 56	Bernesga Mb.	0.00	11.03	28.89	17.96	9.52	0.78	19.75	0.00
Villa 57	Bernesga Mb.	0.00	10.48	28.06	26.86	8.52	0.70	19.18	0.00
Villa 58	Bernesga Mb.	0.00	11.93	30.93	27.28	9.16	0.70	21.14	0.00
Villa 59	Bernesga Mb.	0.00	11.42	29.04	23.75	8.60	0.69	19.85	0.00
Villa 60	Bernesga Mb.	0.00	10.62	27.07	17.01	7.41	0.74	18.50	0.00
Villa 61	Bernesga Mb.	0.00	10.71	28.03	26.88	7.67	0.68	19.15	0.00
Villa 62	Bernesga Mb.	0.00	10.25	28.51	29.52	7.20	0.70	19.48	0.00
Villa 63	Bernesga Mb.	0.00	11.35	28.61	18.60	8.32	0.72	19.55	0.00
Villa 64	Bernesga Mb.	0.00	10.68	27.07	22.85	7.45	0.74	18.50	0.00
Villa 65	Bernesga Mb.	0.00	11.16	28.12	19.41	7.97	0.70	19.22	0.00
Villa 66	Bernesga Mb.	0.00	11.14	28.87	21.88	7.65	0.74	19.73	0.00
Villa 67	Bernesga Mb.	0.00	10.69	27.50	25.83	7.86	0.68	18.80	0.00
Villa 68	Bernesga Mb.	0.00	10.80	28.27	28.29	8.13	0.68	19.32	0.00
Villa 69	Bernesga Mb.	0.00	11.87	30.20	27.19	9.76	0.69	20.64	0.00
Villa 70	Bernesga Mb.	0.00	11.75	30.57	27.24	9.04	0.67	20.89	0.00
Villa 71	Bernesga Mb.	0.00	11.51	30.88	24.74	9.45	0.64	21.10	0.00
Villa 72	Bernesga Mb.	0.00	11.01	38.73	39.23	7.63	0.62	26.47	0.00
Villa 73	Bernesga Mb.	0.00	10.56	26.92	21.50	8.12	0.74	18.39	0.00
Villa 74	Bernesga Mb.	0.00	11.13	28.60	29.46	7.91	0.72	19.54	0.00
Villa 75	Bernesga Mb.	0.00	10.80	28.65	29.10	7.47	0.72	19.58	0.00

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
Villa 51	Bernesga Mb.	1.79	0.56	1.78	18.19	< D.L.	1.33	0.12	1.33	0.01	0.00	0.00
Villa 52	Bernesga Mb.	1.32	0.76	1.84	13.05	< D.L.	1.16	0.06	1.77	0.01	0.00	0.00
Villa 53	Bernesga Mb.	0.47	2.12	1.64	12.15	< D.L.	2.04	0.31	2.71	0.01	0.00	0.00
Villa 54	Bernesga Mb.	1.65	0.60	1.81	15.88	< D.L.	1.21	0.08	1.48	0.01	0.00	0.00
Villa 55	Bernesga Mb.	1.44	0.70	1.82	14.12	< D.L.	1.17	0.07	1.32	0.01	0.00	0.00
Villa 56	Bernesga Mb.	1.36	0.74	1.82	14.46	< D.L.	1.28	0.11	1.36	0.01	0.00	0.00
Villa 57	Bernesga Mb.	0.72	1.38	1.71	14.86	< D.L.	1.94	0.29	2.68	0.01	0.00	0.00
Villa 58	Bernesga Mb.	1.12	0.89	1.66	14.20	< D.L.	1.65	0.22	1.96	0.01	0.00	0.00
Villa 59	Bernesga Mb.	1.07	0.93	1.64	13.93	< D.L.	1.61	0.21	2.01	0.01	0.00	0.00
Villa 60	Bernesga Mb.	1.26	0.79	1.57	14.65	< D.L.	1.68	0.23	2.11	0.01	0.00	0.00
Villa 61	Bernesga Mb.	0.60	1.68	1.59	11.48	< D.L.	1.96	0.29	2.53	0.01	0.00	0.00
Villa 62	Bernesga Mb.	< D.L.	< D.L.	1.56	< D.L.	< D.L.	2.30	0.36	3.35	0.01	0.00	0.00
Villa 63	Bernesga Mb.	< D.L.	0.00	1.67	< D.L.	< D.L.	1.37	0.14	1.27	0.01	0.00	0.00
Villa 64	Bernesga Mb.	< D.L.	0.00	1.66	< D.L.	< D.L.	1.37	0.14	1.54	0.01	0.00	0.00
Villa 65	Bernesga Mb.	< D.L.	0.00	1.70	< D.L.	< D.L.	1.36	0.13	1.45	0.01	0.00	0.00
Villa 66	Bernesga Mb.	< D.L.	0.00	1.75	< D.L.	< D.L.	1.21	0.08	1.79	0.01	0.00	0.00
Villa 67	Bernesga Mb.	< D.L.	0.00	1.75	< D.L.	< D.L.	1.34	0.13	1.92	0.01	0.00	0.00
Villa 68	Bernesga Mb.	< D.L.	0.00	1.83	< D.L.	< D.L.	1.31	0.12	1.69	0.01	0.00	0.00
Villa 69	Bernesga Mb.	< D.L.	0.00	1.91	< D.L.	< D.L.	1.22	0.09	1.61	0.01	0.00	0.00
Villa 70	Bernesga Mb.	1.13	0.89	1.80	11.28	< D.L.	1.24	0.09	1.66	0.01	0.00	0.00
Villa 71	Bernesga Mb.	1.40	0.72	1.74	18.21	< D.L.	1.57	0.20	2.06	0.01	0.00	0.00
Villa 72	Bernesga Mb.	< D.L.	< D.L.	1.44	< D.L.	< D.L.	3.86	0.59	4.56	0.01	0.00	0.00
Villa 73	Bernesga Mb.	< D.L.	0.00	1.72	< D.L.	< D.L.	1.45	0.16	2.41	0.01	0.00	0.00
Villa 74	Bernesga Mb.	< D.L.	0.00	1.57	< D.L.	< D.L.	1.98	0.30	2.17	0.01	0.00	0.00
Villa 75	Bernesga Mb.	< D.L.	0.00	1.56	< D.L.	< D.L.	2.09	0.32	2.81	0.01	0.00	0.00

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	V (wt%)	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
Villa 51	Bernesga Mb.	0.00	0.00	0.00	3.19	0.02	7.42	14.40	401053.44	1016.43	-22.90
Villa 52	Bernesga Mb.	0.00	0.00	0.00	5.96	0.02	7.32	13.87	391766.33	1032.43	-22.21
Villa 53	Bernesga Mb.	0.00	0.00	0.00	10.33	0.02	6.64	14.89	398234.64	1255.10	-16.80
Villa 54	Bernesga Mb.	0.00	0.00	0.00	4.21	0.02	7.20	14.90	409941.93	1257.03	-24.94
Villa 55	Bernesga Mb.	0.00	0.00	0.00	5.28	0.02	7.18	14.32	378969.92	1228.07	-21.12
Villa 56	Bernesga Mb.	0.00	0.00	0.00	5.77	0.02	7.41	15.25	410324.31	869.67	-23.86
Villa 57	Bernesga Mb.	0.00	0.00	0.00	7.31	0.02	7.04	14.31	409861.67	1221.03	-20.46
Villa 58	Bernesga Mb.	0.00	0.00	0.00	5.95	0.02	7.44	13.49	379462.15	1103.70	-18.95
Villa 59	Bernesga Mb.	0.00	0.00	0.00	6.10	0.02	7.43	13.23	394033.38	1184.07	-20.63
Villa 60	Bernesga Mb.	0.00	0.00	0.00	4.84	0.02	7.45	12.23	405752.32	999.30	-22.78
Villa 61	Bernesga Mb.	0.00	0.00	0.00	8.79	0.02	7.32	12.60	393961.08	1384.27	-20.54
Villa 62	Bernesga Mb.	0.00	0.00	0.00	0.00	0.02	6.99	12.22	404257.59	3225.80	-17.79
Villa 63	Bernesga Mb.	0.00	0.00	0.00	-4.02	0.02	7.53	12.94	384921.49	1021.70	-22.22
Villa 64	Bernesga Mb.	0.00	0.00	0.00	-3.52	0.02	7.39	12.30	405505.54	924.43	-23.57
Villa 65	Bernesga Mb.	0.00	0.00	0.00	-4.25	0.02	7.49	12.56	392428.07	1041.13	-22.68
Villa 66	Bernesga Mb.	0.00	0.00	0.00	-3.64	0.02	6.97	12.02	398724.08	1026.33	-22.07
Villa 67	Bernesga Mb.	0.00	0.00	0.00	-3.97	0.02	7.32	12.92	405456.36	1194.27	-23.16
Villa 68	Bernesga Mb.	0.00	0.00	0.00	-4.05	0.02	7.01	13.23	404814.30	1125.03	-22.96
Villa 69	Bernesga Mb.	0.00	0.00	0.00	-4.72	0.02	7.19	14.47	381293.05	1197.37	-20.55
Villa 70	Bernesga Mb.	0.00	0.00	0.00	7.50	0.02	7.26	13.56	384419.54	1156.20	-21.24
Villa 71	Bernesga Mb.	0.00	0.00	0.00	4.20	0.02	7.00	14.31	393043.82	1250.87	-19.85
Villa 72	Bernesga Mb.	0.00	0.00	0.00	0.00	0.02	6.51	11.92	373436.51	1430.50	-5.69
Villa 73	Bernesga Mb.	0.00	0.00	0.00	-4.25	0.02	7.52	13.51	417637.59	1025.43	-24.01
Villa 74	Bernesga Mb.	0.00	0.00	0.00	-2.61	0.02	7.32	12.45	393457.31	1027.60	-18.80
Villa 75	Bernesga Mb.	0.00	0.00	0.00	-1.73	0.02	7.19	12.07	393189.65	949.47	-18.51

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
Villa 51	Bernesga Mb.	-10.70	15.97	-2.12	0.83	94.89	95.54
Villa 52	Bernesga Mb.	-10.38	15.34	-2.14	0.83	94.28	95.09
Villa 53	Bernesga Mb.	-7.85	15.37	0.40	1.05	95.01	95.63
Villa 54	Bernesga Mb.	-11.66	16.61	-2.73	0.81	94.97	95.61
Villa 55	Bernesga Mb.	-9.87	14.83	-1.90	0.84	94.09	94.96
Villa 56	Bernesga Mb.	-11.15	16.33	-2.38	0.82	94.92	95.57
Villa 57	Bernesga Mb.	-9.56	17.15	-0.35	0.96	95.33	95.88
Villa 58	Bernesga Mb.	-8.86	15.04	-0.78	0.92	94.80	95.47
Villa 59	Bernesga Mb.	-9.64	15.70	-1.21	0.89	95.04	95.65
Villa 60	Bernesga Mb.	-10.65	16.85	-1.60	0.87	95.48	96.00
Villa 61	Bernesga Mb.	-9.60	16.76	-0.60	0.94	95.49	96.00
Villa 62	Bernesga Mb.	-8.31	17.32	0.99	1.13	95.37	95.91
Villa 63	Bernesga Mb.	-10.39	15.87	-1.86	0.85	94.82	95.49
Villa 64	Bernesga Mb.	-11.01	16.83	-1.97	0.85	94.86	95.53
Villa 65	Bernesga Mb.	-10.60	16.09	-1.96	0.84	94.83	95.50
Villa 66	Bernesga Mb.	-10.31	16.03	-1.70	0.86	94.02	94.93
Villa 67	Bernesga Mb.	-10.82	16.77	-1.82	0.86	94.61	95.35
Villa 68	Bernesga Mb.	-10.73	16.59	-1.82	0.86	94.51	95.28
Villa 69	Bernesga Mb.	-9.60	15.13	-1.48	0.87	93.87	94.81
Villa 70	Bernesga Mb.	-9.93	15.30	-1.71	0.85	94.17	95.02
Villa 71	Bernesga Mb.	-9.27	15.45	-0.98	0.90	94.75	95.44
Villa 72	Bernesga Mb.	-2.66	15.94	5.90	-0.82	94.76	95.34
Villa 73	Bernesga Mb.	-11.22	16.97	-2.10	0.84	95.22	95.80
Villa 74	Bernesga Mb.	-8.79	16.06	-0.16	0.98	95.25	95.81
Villa 75	Bernesga Mb.	-8.65	16.49	0.20	1.02	95.31	95.86

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
Villa 51	Bernesga Mb.	84.69	4.35	-1.00	4.39
Villa 52	Bernesga Mb.	83.19	3.53	-0.21	3.57
Villa 53	Bernesga Mb.	85.09	6.40	-1.76	6.43
Villa 54	Bernesga Mb.	84.82	4.41	-0.94	4.44
Villa 55	Bernesga Mb.	82.79	2.45	-0.78	2.48
Villa 56	Bernesga Mb.	84.73	4.52	-0.88	4.55
Villa 57	Bernesga Mb.	85.74	7.48	-1.63	7.51
Villa 58	Bernesga Mb.	84.59	4.47	-1.49	4.50
Villa 59	Bernesga Mb.	85.13	5.02	-1.44	5.06
Villa 60	Bernesga Mb.	86.22	6.34	-1.56	6.37
Villa 61	Bernesga Mb.	86.25	7.49	-1.52	7.53
Villa 62	Bernesga Mb.	85.84	9.27	-1.56	9.30
Villa 63	Bernesga Mb.	84.52	4.68	-0.76	4.72
Villa 64	Bernesga Mb.	84.52	5.61	-0.47	5.64
Villa 65	Bernesga Mb.	84.53	4.70	-0.78	4.74
Villa 66	Bernesga Mb.	82.49	4.13	0.05	4.16
Villa 67	Bernesga Mb.	83.88	5.36	-0.26	5.39
Villa 68	Bernesga Mb.	83.64	4.75	-0.53	4.78
Villa 69	Bernesga Mb.	82.21	3.34	-0.12	3.37
Villa 70	Bernesga Mb.	82.93	3.33	-0.53	3.36
Villa 71	Bernesga Mb.	84.39	4.54	-1.45	4.57
Villa 72	Bernesga Mb.	85.82	11.78	-3.58	11.81
Villa 73	Bernesga Mb.	85.47	5.82	-0.99	5.85
Villa 74	Bernesga Mb.	85.65	6.58	-1.74	6.61
Villa 75	Bernesga Mb.	85.77	7.46	-1.73	7.49

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
Villa 51	Bernesga Mb.	0.44	4.70	-44.46	0.85
Villa 52	Bernesga Mb.	1.32	4.77	-43.80	0.85
Villa 53	Bernesga Mb.	-0.40	4.51	-48.64	0.79
Villa 54	Bernesga Mb.	0.53	4.80	-44.78	0.86
Villa 55	Bernesga Mb.	0.75	4.90	-42.26	0.85
Villa 56	Bernesga Mb.	0.58	4.67	-45.25	0.85
Villa 57	Bernesga Mb.	-0.21	4.61	-49.92	0.81
Villa 58	Bernesga Mb.	-0.11	4.66	-43.98	0.82
Villa 59	Bernesga Mb.	-0.06	4.62	-45.07	0.83
Villa 60	Bernesga Mb.	-0.20	4.62	-46.27	0.83
Villa 61	Bernesga Mb.	-0.18	4.62	-47.38	0.81
Villa 62	Bernesga Mb.	-0.14	4.53	-52.60	0.78
Villa 63	Bernesga Mb.	0.69	4.78	-43.63	0.84
Villa 64	Bernesga Mb.	1.05	4.74	-46.67	0.84
Villa 65	Bernesga Mb.	0.68	4.76	-44.36	0.84
Villa 66	Bernesga Mb.	1.71	4.88	-46.72	0.84
Villa 67	Bernesga Mb.	1.32	4.78	-47.27	0.84
Villa 68	Bernesga Mb.	1.06	4.86	-46.95	0.84
Villa 69	Bernesga Mb.	1.48	4.88	-44.40	0.83
Villa 70	Bernesga Mb.	1.02	4.86	-43.87	0.84
Villa 71	Bernesga Mb.	-0.03	4.70	-45.49	0.82
Villa 72	Bernesga Mb.	-2.20	4.31	-57.66	0.69
Villa 73	Bernesga Mb.	0.45	4.59	-46.97	0.84
Villa 74	Bernesga Mb.	-0.38	4.56	-47.44	0.80
Villa 75	Bernesga Mb.	-0.35	4.59	-48.74	0.79

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
Villa 51	Bernesga Mb.	4.32	0.45	4.00	4.00	1.00	0.00	9.00
Villa 52	Bernesga Mb.	4.13	0.46	4.00	4.00	1.00	0.00	9.00
Villa 53	Bernesga Mb.	6.88	0.52	4.00	4.00	1.00	0.00	9.00
Villa 54	Bernesga Mb.	4.20	0.44	4.00	4.00	1.00	0.00	9.00
Villa 55	Bernesga Mb.	4.22	0.49	4.00	4.00	1.00	0.00	9.00
Villa 56	Bernesga Mb.	4.27	0.44	4.00	4.00	1.00	0.00	9.00
Villa 57	Bernesga Mb.	6.56	0.49	4.00	4.00	1.00	0.00	9.00
Villa 58	Bernesga Mb.	5.06	0.50	4.00	4.00	1.00	0.00	9.00
Villa 59	Bernesga Mb.	4.97	0.47	4.00	4.00	1.00	0.00	9.00
Villa 60	Bernesga Mb.	5.06	0.45	4.00	4.00	1.00	0.00	9.00
Villa 61	Bernesga Mb.	5.96	0.47	4.00	4.00	1.00	0.00	9.00
Villa 62	Bernesga Mb.	7.86	0.52	1.00	< D.L.	1.00	< D.L.	< D.L.
Villa 63	Bernesga Mb.	4.44	0.46	1.00	< D.L.	1.00	< D.L.	< D.L.
Villa 64	Bernesga Mb.	4.80	0.45	1.00	< D.L.	1.00	< D.L.	< D.L.
Villa 65	Bernesga Mb.	4.46	0.46	1.00	< D.L.	1.00	< D.L.	< D.L.
Villa 66	Bernesga Mb.	5.00	0.49	1.00	< D.L.	1.00	< D.L.	< D.L.
Villa 67	Bernesga Mb.	4.95	0.47	1.00	< D.L.	1.00	< D.L.	< D.L.
Villa 68	Bernesga Mb.	5.09	0.48	1.00	< D.L.	1.00	< D.L.	< D.L.
Villa 69	Bernesga Mb.	4.69	0.50	1.00	< D.L.	1.00	< D.L.	< D.L.
Villa 70	Bernesga Mb.	4.51	0.49	4.00	4.00	1.00	0.00	9.00
Villa 71	Bernesga Mb.	5.37	0.50	4.00	4.00	1.00	0.00	9.00
Villa 72	Bernesga Mb.	12.40	0.69	1.00	< D.L.	1.00	< D.L.	< D.L.
Villa 73	Bernesga Mb.	4.66	0.44	1.00	< D.L.	1.00	< D.L.	< D.L.
Villa 74	Bernesga Mb.	6.05	0.50	1.00	< D.L.	1.00	< D.L.	< D.L.
Villa 75	Bernesga Mb.	6.64	0.51	1.00	< D.L.	1.00	< D.L.	< D.L.

5.4 Villa 76 - 100

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
Villa 76	Bernesga Mb.	0.00	0.00	36.18	36.18	36.18
Villa 77	Bernesga Mb.	0.00	34.23	38.95	73.18	73.18
Villa 78	Bernesga Mb.	0.00	33.20	39.69	72.89	72.89
Villa 79	Bernesga Mb.	0.00	22.81	39.91	62.72	62.72
Villa 80	Bernesga Mb.	0.00	28.58	39.76	68.34	68.34
Villa 81	Bernesga Mb.	47.53	28.42	37.36	113.32	65.78
Villa 82	Bernesga Mb.	67.50	16.88	40.60	124.98	57.48
Villa 83	Bernesga Mb.	64.42	33.13	41.50	139.05	74.63
Villa 84	Bernesga Mb.	68.88	39.68	39.59	148.16	79.27
Villa 85	Bernesga Mb.	67.39	18.08	36.91	122.38	54.99
Villa 86	Bernesga Mb.	78.72	28.42	37.72	144.87	66.15
Villa 87	Bernesga Mb.	74.77	0.00	35.83	110.60	35.83
Villa 88	Bernesga Mb.	69.51	24.18	40.38	134.07	64.56
Villa 89	Bernesga Mb.	77.38	32.22	39.68	149.28	71.90
Villa 90	Bernesga Mb.	73.90	28.41	38.57	140.89	66.99
Villa 91	Bernesga Mb.	77.05	27.26	40.10	144.41	67.37
Villa 92	Bernesga Mb.	74.55	26.77	38.68	140.01	65.46
Villa 93	Bernesga Mb.	72.56	38.90	37.51	148.97	76.41
Villa 94	Bernesga Mb.	76.47	28.46	36.44	141.37	64.90
Villa 95	Bernesga Mb.	110.54	34.54	40.78	185.87	75.33
Villa 96	Bernesga Mb.	90.83	24.67	37.42	152.92	62.10
Villa 97	Bernesga Mb.	73.55	45.32	39.27	158.14	84.60
Villa 98	Bernesga Mb.	65.79	26.62	38.88	131.28	65.50
Villa 99	Bernesga Mb.	80.46	23.64	38.14	142.24	61.78
Villa 100	Bernesga Mb.	55.46	0.00	35.04	90.50	35.04

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
Villa 76	Bernesga Mb.	0.00	0.00	54.41	54.41	54.41
Villa 77	Bernesga Mb.	0.00	53.91	58.57	112.48	112.48
Villa 78	Bernesga Mb.	0.00	52.28	59.69	111.97	111.97
Villa 79	Bernesga Mb.	0.00	35.92	60.01	95.93	95.93
Villa 80	Bernesga Mb.	0.00	45.01	59.79	104.80	104.80
Villa 81	Bernesga Mb.	56.84	44.76	56.18	157.78	100.94
Villa 82	Bernesga Mb.	80.72	26.59	61.05	168.35	87.63
Villa 83	Bernesga Mb.	77.04	52.17	62.40	191.61	114.57
Villa 84	Bernesga Mb.	82.37	62.49	59.54	204.40	122.03
Villa 85	Bernesga Mb.	80.59	28.48	55.50	164.56	83.98
Villa 86	Bernesga Mb.	94.13	44.76	56.73	195.62	101.49
Villa 87	Bernesga Mb.	89.41	0.00	53.87	143.29	53.87
Villa 88	Bernesga Mb.	83.12	38.08	60.72	181.92	98.80
Villa 89	Bernesga Mb.	92.53	50.75	59.66	202.94	110.41
Villa 90	Bernesga Mb.	88.37	44.75	58.01	191.13	102.75
Villa 91	Bernesga Mb.	92.13	42.93	60.30	195.37	103.24
Villa 92	Bernesga Mb.	89.15	42.16	58.17	189.48	100.33
Villa 93	Bernesga Mb.	86.77	61.25	56.41	204.44	117.66
Villa 94	Bernesga Mb.	91.44	44.83	54.79	191.06	99.62
Villa 95	Bernesga Mb.	132.19	54.40	61.33	247.92	115.73
Villa 96	Bernesga Mb.	108.61	38.85	56.28	203.74	95.13
Villa 97	Bernesga Mb.	87.95	71.37	59.06	218.38	130.43
Villa 98	Bernesga Mb.	78.67	41.92	58.46	179.05	100.38
Villa 99	Bernesga Mb.	96.21	37.23	57.36	190.80	94.58
Villa 100	Bernesga Mb.	66.32	0.00	52.70	119.02	52.70

Sample	Formation	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al2O3*5	10Al2O3
Villa 76	Bernesga Mb.	0.00	0.00	0.00	< D.L.	< D.L.	33.14	10.88	142.56	285.11
Villa 77	Bernesga Mb.	0.00	0.00	-4.49	< D.L.	< D.L.	33.24	7.09	141.44	282.88
Villa 78	Bernesga Mb.	0.00	0.00	-4.36	< D.L.	< D.L.	37.33	7.02	161.45	322.90
Villa 79	Bernesga Mb.	0.00	0.00	-2.99	< D.L.	< D.L.	34.90	7.37	149.14	298.28
Villa 80	Bernesga Mb.	0.00	0.00	-3.75	< D.L.	< D.L.	38.04	7.36	164.94	329.89
Villa 81	Bernesga Mb.	71.05	142.10	3.38	2.08	2.79	35.86	7.03	155.48	310.95
Villa 82	Bernesga Mb.	100.90	201.80	7.87	3.47	4.66	35.00	7.97	149.22	298.43
Villa 83	Bernesga Mb.	96.30	192.60	5.28	3.29	4.41	36.45	6.82	155.95	311.89
Villa 84	Bernesga Mb.	102.97	205.93	5.09	3.56	4.76	32.95	6.53	139.57	279.14
Villa 85	Bernesga Mb.	100.73	201.47	7.70	3.47	4.65	36.12	9.57	157.04	314.08
Villa 86	Bernesga Mb.	117.67	235.33	8.04	4.08	5.47	33.69	7.88	144.39	288.78
Villa 87	Bernesga Mb.	111.77	223.53	11.18	3.88	5.20	34.22	10.52	148.18	296.36
Villa 88	Bernesga Mb.	103.90	207.80	7.22	3.59	4.81	35.96	7.73	154.14	308.28
Villa 89	Bernesga Mb.	115.67	231.33	7.34	4.02	5.38	34.72	6.35	148.37	296.73
Villa 90	Bernesga Mb.	110.47	220.93	7.32	3.83	5.14	34.86	6.44	149.77	299.53
Villa 91	Bernesga Mb.	115.17	230.33	7.94	4.00	5.36	35.44	6.85	151.74	303.49
Villa 92	Bernesga Mb.	111.43	222.87	7.63	3.87	5.18	36.61	7.29	158.42	316.85
Villa 93	Bernesga Mb.	108.47	216.93	5.74	3.76	5.04	35.43	6.16	153.23	306.47
Villa 94	Bernesga Mb.	114.30	228.60	7.69	3.97	5.32	35.74	6.90	155.44	310.89
Villa 95	Bernesga Mb.	165.23	330.47	11.99	5.43	7.28	34.75	5.96	147.86	295.72
Villa 96	Bernesga Mb.	135.77	271.53	10.34	4.65	6.23	34.17	6.89	146.98	293.95
Villa 97	Bernesga Mb.	109.93	219.87	5.05	3.81	5.11	33.07	5.05	140.38	280.77
Villa 98	Bernesga Mb.	98.33	196.67	6.34	3.37	4.52	34.67	7.34	148.60	297.20
Villa 99	Bernesga Mb.	120.27	240.53	8.92	4.17	5.59	35.22	7.79	151.82	303.63
Villa 100	Bernesga Mb.	82.90	165.80	8.29	2.70	3.61	35.02	9.50	152.68	305.36

Sample	Formation	15Al2O3	Al2O3/10	K2O *5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	200TiO2	300TiO2	K2O/Al2O3
Villa 76	Bernesga Mb.	427.67	2.85	17.00	0.00	11.42	30412.00	6.81	8.77	232.46	348.69	0.12
Villa 77	Bernesga Mb.	424.32	2.83	18.30	0.00	12.34	3556.37	4.10	5.27	242.20	363.31	0.13
Villa 78	Bernesga Mb.	484.35	3.23	18.65	0.00	13.66	-3166.57	3.96	5.09	247.86	371.79	0.12
Villa 79	Bernesga Mb.	447.42	2.98	18.75	0.00	11.98	3699.71	4.32	5.55	246.00	369.00	0.13
Villa 80	Bernesga Mb.	494.83	3.30	18.68	0.00	13.50	-1619.18	4.20	5.41	248.87	373.30	0.11
Villa 81	Bernesga Mb.	466.43	3.11	17.56	0.00	12.22	-515.73	4.06	5.23	242.86	364.28	0.11
Villa 82	Bernesga Mb.	447.65	2.98	19.08	0.00	11.22	8409.85	4.79	6.16	237.90	356.85	0.13
Villa 83	Bernesga Mb.	467.84	3.12	19.50	0.00	14.58	-3774.36	3.75	4.82	236.90	355.35	0.13
Villa 84	Bernesga Mb.	418.71	2.79	18.60	0.00	13.24	-503.43	3.64	4.69	245.12	367.68	0.13
Villa 85	Bernesga Mb.	471.12	3.14	17.34	0.00	10.07	18335.13	5.99	7.71	243.50	365.25	0.11
Villa 86	Bernesga Mb.	433.17	2.89	17.73	0.00	12.09	8437.26	4.66	6.00	241.35	362.02	0.12
Villa 87	Bernesga Mb.	444.55	2.96	16.84	0.00	0.00	34373.19	7.36	9.47	236.74	355.11	0.11
Villa 88	Bernesga Mb.	462.42	3.08	18.98	0.00	10.64	5836.79	4.66	6.00	235.51	353.27	0.12
Villa 89	Bernesga Mb.	445.10	2.97	18.64	0.00	11.31	-2768.50	3.65	4.69	233.80	350.69	0.13
Villa 90	Bernesga Mb.	449.30	3.00	18.13	0.00	14.24	-4571.80	3.51	4.51	238.44	357.66	0.12
Villa 91	Bernesga Mb.	455.23	3.03	18.85	0.00	14.42	-2343.59	3.78	4.86	239.70	359.55	0.12
Villa 92	Bernesga Mb.	475.27	3.17	18.18	0.00	15.43	-1733.95	4.02	5.17	240.99	361.48	0.11
Villa 93	Bernesga Mb.	459.70	3.06	17.63	0.00	10.99	-5180.19	3.54	4.55	245.66	368.49	0.12
Villa 94	Bernesga Mb.	466.33	3.11	17.12	0.00	11.85	-1142.96	4.00	5.14	240.37	360.56	0.11
Villa 95	Bernesga Mb.	443.58	2.96	19.17	0.00	11.05	-5177.51	3.40	4.37	226.88	340.32	0.13
Villa 96	Bernesga Mb.	440.93	2.94	17.59	0.00	10.71	1774.10	4.07	5.23	231.64	347.46	0.12
Villa 97	Bernesga Mb.	421.15	2.81	18.46	0.00	10.43	-9097.45	2.81	3.61	241.34	362.01	0.13
Villa 98	Bernesga Mb.	445.80	2.97	18.27	0.00	11.22	4194.16	4.35	5.60	227.78	341.66	0.12
Villa 99	Bernesga Mb.	455.45	3.04	17.92	0.00	12.01	5885.13	4.61	5.93	234.82	352.22	0.12
Villa 100	Bernesga Mb.	458.03	3.05	16.47	0.00	11.02	18346.01	5.87	7.56	215.12	322.68	0.11

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
Villa 76	Bernesga Mb.	-0.92	0.04	0.99	0.20	0.36	2.78	-0.44	23.31
Villa 77	Bernesga Mb.	-0.89	0.04	0.77	0.24	0.35	2.83	-0.45	21.84
Villa 78	Bernesga Mb.	-0.94	0.04	0.75	0.21	0.35	2.84	-0.45	24.57
Villa 79	Bernesga Mb.	-0.90	0.04	0.79	0.22	0.35	2.84	-0.45	22.60
Villa 80	Bernesga Mb.	-0.95	0.04	0.78	0.20	0.35	2.84	-0.45	25.06
Villa 81	Bernesga Mb.	-0.95	0.04	0.76	0.21	0.36	2.80	-0.45	24.80
Villa 82	Bernesga Mb.	-0.89	0.04	0.84	0.21	0.35	2.85	-0.46	22.31
Villa 83	Bernesga Mb.	-0.90	0.05	0.73	0.22	0.35	2.86	-0.46	22.91
Villa 84	Bernesga Mb.	-0.88	0.05	0.72	0.25	0.35	2.84	-0.45	21.28
Villa 85	Bernesga Mb.	-0.96	0.03	0.93	0.20	0.36	2.79	-0.45	25.29
Villa 86	Bernesga Mb.	-0.91	0.04	0.82	0.23	0.36	2.81	-0.45	22.86
Villa 87	Bernesga Mb.	-0.94	0.00	1.02	0.21	0.36	2.77	-0.44	24.42
Villa 88	Bernesga Mb.	-0.91	0.03	0.82	0.21	0.35	2.85	-0.45	23.14
Villa 89	Bernesga Mb.	-0.90	0.04	0.72	0.25	0.35	2.84	-0.45	22.58
Villa 90	Bernesga Mb.	-0.92	0.05	0.70	0.22	0.35	2.82	-0.45	23.31
Villa 91	Bernesga Mb.	-0.91	0.05	0.73	0.21	0.35	2.84	-0.45	22.90
Villa 92	Bernesga Mb.	-0.94	0.05	0.76	0.21	0.35	2.82	-0.45	24.60
Villa 93	Bernesga Mb.	-0.94	0.04	0.70	0.23	0.36	2.80	-0.45	24.37
Villa 94	Bernesga Mb.	-0.96	0.04	0.76	0.22	0.36	2.79	-0.44	25.28
Villa 95	Bernesga Mb.	-0.89	0.04	0.69	0.23	0.35	2.85	-0.46	22.02
Villa 96	Bernesga Mb.	-0.92	0.04	0.76	0.23	0.36	2.80	-0.45	23.42
Villa 97	Bernesga Mb.	-0.88	0.04	0.60	0.25	0.35	2.83	-0.45	21.54
Villa 98	Bernesga Mb.	-0.91	0.04	0.79	0.22	0.35	2.83	-0.45	22.98
Villa 99	Bernesga Mb.	-0.93	0.04	0.82	0.20	0.36	2.81	-0.45	23.83
Villa 100	Bernesga Mb.	-0.97	0.04	0.92	0.22	0.36	2.76	-0.44	25.59

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
Villa 76	Bernesga Mb.	1.22	4.62	10.88	1.59	0.20	0.63	0.34	40.25	0.00
Villa 77	Bernesga Mb.	1.30	4.96	7.09	1.75	0.24	0.57	0.21	43.43	0.01
Villa 78	Bernesga Mb.	1.31	5.04	7.02	1.62	0.21	0.62	0.18	43.04	0.01
Villa 79	Bernesga Mb.	1.32	5.07	7.37	1.65	0.22	0.61	0.21	43.08	0.01
Villa 80	Bernesga Mb.	1.32	5.05	7.36	1.58	0.20	0.63	0.18	43.40	0.01
Villa 81	Bernesga Mb.	1.25	4.77	7.03	1.61	0.21	0.62	0.19	43.61	0.01
Villa 82	Bernesga Mb.	1.34	5.15	7.97	1.64	0.21	0.61	0.23	41.17	0.01
Villa 83	Bernesga Mb.	1.36	5.26	6.82	1.65	0.22	0.61	0.17	43.08	0.01
Villa 84	Bernesga Mb.	1.31	5.03	6.53	1.79	0.25	0.56	0.19	43.33	0.01
Villa 85	Bernesga Mb.	1.24	4.71	9.57	1.60	0.20	0.62	0.27	39.58	0.00
Villa 86	Bernesga Mb.	1.26	4.81	7.88	1.69	0.23	0.59	0.23	42.33	0.01
Villa 87	Bernesga Mb.	1.21	4.58	10.52	1.64	0.21	0.61	0.36	39.13	0.00
Villa 88	Bernesga Mb.	1.33	5.13	7.73	1.63	0.21	0.62	0.22	41.38	0.01
Villa 89	Bernesga Mb.	1.31	5.04	6.35	1.76	0.25	0.57	0.18	42.97	0.01
Villa 90	Bernesga Mb.	1.29	4.91	6.44	1.65	0.22	0.61	0.17	45.99	0.01
Villa 91	Bernesga Mb.	1.33	5.09	6.85	1.63	0.21	0.61	0.18	45.56	0.01
Villa 92	Bernesga Mb.	1.29	4.92	7.29	1.61	0.21	0.62	0.18	45.23	0.01
Villa 93	Bernesga Mb.	1.26	4.78	6.16	1.69	0.23	0.59	0.17	46.97	0.01
Villa 94	Bernesga Mb.	1.23	4.65	6.90	1.67	0.22	0.60	0.18	45.87	0.01
Villa 95	Bernesga Mb.	1.34	5.18	5.96	1.71	0.23	0.59	0.16	45.87	0.01
Villa 96	Bernesga Mb.	1.26	4.77	6.89	1.68	0.23	0.59	0.20	46.52	0.01
Villa 97	Bernesga Mb.	1.30	4.99	5.05	1.77	0.25	0.56	0.14	48.96	0.01
Villa 98	Bernesga Mb.	1.29	4.95	7.34	1.67	0.22	0.60	0.21	44.20	0.01
Villa 99	Bernesga Mb.	1.27	4.86	7.79	1.57	0.20	0.64	0.22	45.53	0.01
Villa 100	Bernesga Mb.	1.19	4.49	9.50	1.67	0.22	0.60	0.28	40.14	0.00

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Ti Cal (ppm)	Zr/Sc	Cr/Th	Th/Sc
Villa 76	Bernesga Mb.	24.53	0.06	357.64	0.51	202.96	0.52	0.79	1.34	< D.L.	< D.L.	0.00	6966.96	< D.L.	< D.L.	< D.L.
Villa 77	Bernesga Mb.	23.36	0.06	375.83	0.97	197.60	0.40	0.79	1.12	< D.L.	< D.L.	4.49	7258.95	< D.L.	9.37	< D.L.
Villa 78	Bernesga Mb.	26.06	0.06	385.56	0.89	172.65	0.28	0.74	1.22	< D.L.	< D.L.	4.36	7428.48	< D.L.	9.09	< D.L.
Villa 79	Bernesga Mb.	24.25	0.06	374.79	0.87	171.56	0.30	0.71	1.19	< D.L.	< D.L.	2.99	7372.78	< D.L.	12.76	< D.L.
Villa 80	Bernesga Mb.	26.51	0.06	370.84	0.91	182.54	0.29	0.78	1.18	< D.L.	9.22	3.75	7458.69	6.04	11.25	0.54
Villa 81	Bernesga Mb.	25.61	0.07	398.79	0.76	193.23	0.34	0.85	1.23	< D.L.	< D.L.	3.73	7278.47	< D.L.	11.56	< D.L.
Villa 82	Bernesga Mb.	25.09	0.06	378.00	0.79	190.15	0.36	0.74	1.32	< D.L.	< D.L.	2.22	7129.89	< D.L.	17.49	< D.L.
Villa 83	Bernesga Mb.	26.33	0.06	368.30	0.51	231.44	0.55	0.77	1.11	< D.L.	< D.L.	4.35	7100.06	< D.L.	9.90	< D.L.
Villa 84	Bernesga Mb.	22.78	0.06	347.28	0.71	189.61	0.37	0.76	1.12	< D.L.	7.14	5.21	7346.40	5.73	7.83	0.62
Villa 85	Bernesga Mb.	25.80	0.07	397.53	0.66	213.97	0.43	0.97	1.35	< D.L.	< D.L.	2.37	7297.89	< D.L.	18.79	< D.L.
Villa 86	Bernesga Mb.	23.93	0.06	382.37	0.72	225.02	0.55	0.80	1.27	< D.L.	< D.L.	3.73	7233.35	< D.L.	10.78	< D.L.
Villa 87	Bernesga Mb.	25.04	0.06	386.33	0.67	192.97	0.47	0.75	1.50	38.07	< D.L.	0.00	7095.15	< D.L.	< D.L.	< D.L.
Villa 88	Bernesga Mb.	26.18	0.06	381.96	0.78	180.25	0.28	0.72	1.49	< D.L.	< D.L.	3.17	7058.41	< D.L.	11.96	< D.L.
Villa 89	Bernesga Mb.	25.38	0.06	355.07	< D.L.	183.34	0.28	0.74	1.47	< D.L.	12.01	4.23	7006.97	7.37	9.29	0.65
Villa 90	Bernesga Mb.	25.12	0.06	380.72	0.54	224.81	0.49	0.74	1.24	< D.L.	< D.L.	3.73	7146.12	< D.L.	11.10	< D.L.
Villa 91	Bernesga Mb.	25.32	0.06	382.43	0.42	202.89	0.43	0.71	1.11	< D.L.	< D.L.	3.58	7183.97	< D.L.	11.34	< D.L.
Villa 92	Bernesga Mb.	26.30	0.06	367.43	0.63	209.10	0.48	0.69	1.21	< D.L.	< D.L.	3.51	7222.48	< D.L.	10.78	< D.L.
Villa 93	Bernesga Mb.	24.95	0.06	383.96	< D.L.	185.44	0.26	0.81	1.20	< D.L.	9.17	5.10	7362.45	5.54	8.75	0.71
Villa 94	Bernesga Mb.	25.87	0.07	390.77	0.73	179.57	0.30	0.73	1.36	< D.L.	9.55	3.74	7204.04	5.30	10.29	0.50
Villa 95	Bernesga Mb.	26.07	0.06	370.02	< D.L.	176.26	0.30	0.66	1.16	54.14	< D.L.	4.53	6799.73	< D.L.	8.47	< D.L.
Villa 96	Bernesga Mb.	25.38	0.06	358.48	0.90	178.01	0.31	0.70	1.27	40.92	< D.L.	3.24	6942.36	< D.L.	11.77	< D.L.
Villa 97	Bernesga Mb.	23.27	0.06	367.90	< D.L.	179.51	0.22	0.72	1.22	< D.L.	11.19	5.95	7233.06	6.27	7.28	0.91
Villa 98	Bernesga Mb.	26.10	0.06	389.25	0.96	192.73	0.36	0.72	1.33	< D.L.	10.03	3.49	6826.55	4.99	11.02	0.49
Villa 99	Bernesga Mb.	25.86	0.06	376.11	0.75	194.74	0.35	0.73	1.33	< D.L.	< D.L.	3.10	7037.55	< D.L.	12.85	< D.L.
Villa 100	Bernesga Mb.	28.39	0.07	413.61	0.77	184.66	0.41	0.82	1.40	< D.L.	< D.L.	0.00	6447.20	< D.L.	< D.L.	< D.L.

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
Villa 76	Bernesga Mb.	0.84	1.20	0.02	5.88	1.06	3.65	< D.L.	0.59	1.69
Villa 77	Bernesga Mb.	0.78	1.29	0.02	6.38	0.98	1.96	< D.L.	0.71	1.41
Villa 78	Bernesga Mb.	0.76	1.32	0.02	6.30	1.02	2.05	< D.L.	0.61	1.65
Villa 79	Bernesga Mb.	0.76	1.31	0.02	6.25	1.07	2.03	0.32	0.60	1.67
Villa 80	Bernesga Mb.	0.77	1.30	0.02	6.21	0.99	2.32	0.36	0.66	1.51
Villa 81	Bernesga Mb.	0.77	1.30	0.02	6.47	0.91	2.13	< D.L.	0.69	1.46
Villa 82	Bernesga Mb.	0.80	1.25	0.02	6.67	1.08	2.53	< D.L.	0.56	1.78
Villa 83	Bernesga Mb.	0.76	1.32	0.02	6.60	0.99	2.20	< D.L.	0.69	1.44
Villa 84	Bernesga Mb.	0.90	1.11	0.02	6.87	1.19	2.21	< D.L.	0.68	1.48
Villa 85	Bernesga Mb.	0.96	1.04	0.02	7.21	0.99	3.58	< D.L.	0.72	1.38
Villa 86	Bernesga Mb.	0.90	1.12	0.02	7.11	1.12	2.79	< D.L.	0.63	1.57
Villa 87	Bernesga Mb.	1.05	0.96	0.02	7.50	1.38	4.29	< D.L.	0.50	1.98
Villa 88	Bernesga Mb.	0.79	1.27	0.02	6.68	1.08	2.43	< D.L.	0.49	2.06
Villa 89	Bernesga Mb.	0.90	1.11	0.02	7.33	1.23	1.97	< D.L.	0.50	2.00
Villa 90	Bernesga Mb.	0.68	1.47	0.02	6.03	0.91	1.67	< D.L.	0.60	1.66
Villa 91	Bernesga Mb.	0.69	1.46	0.02	6.28	0.97	2.31	< D.L.	0.64	1.56
Villa 92	Bernesga Mb.	0.72	1.38	0.02	6.05	1.05	1.82	< D.L.	0.57	1.74
Villa 93	Bernesga Mb.	0.72	1.38	0.02	6.26	0.90	1.62	< D.L.	0.67	1.48
Villa 94	Bernesga Mb.	0.76	1.32	0.02	6.44	1.03	1.96	< D.L.	0.54	1.86
Villa 95	Bernesga Mb.	0.69	1.45	0.02	6.58	1.05	1.37	< D.L.	0.57	1.77
Villa 96	Bernesga Mb.	0.82	1.22	0.02	6.95	1.18	2.15	< D.L.	0.55	1.82
Villa 97	Bernesga Mb.	0.68	1.46	0.02	6.29	0.95	0.76	< D.L.	0.59	1.70
Villa 98	Bernesga Mb.	0.66	1.52	0.02	6.07	0.92	2.28	< D.L.	0.54	1.85
Villa 99	Bernesga Mb.	0.69	1.44	0.02	6.05	0.95	2.53	< D.L.	0.55	1.82
Villa 100	Bernesga Mb.	0.76	1.32	0.02	6.42	0.92	3.39	< D.L.	0.59	1.70

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
Villa 76	Bernesga Mb.	2.04	0.00	12.11	5.59	0.00	2.87	6.28	7.17
Villa 77	Bernesga Mb.	1.25	0.00	11.88	2.65	0.00	2.57	4.77	8.43
Villa 78	Bernesga Mb.	0.87	0.00	11.45	2.08	0.00	1.85	3.15	6.95
Villa 79	Bernesga Mb.	1.13	0.00	12.13	3.09	0.00	2.70	3.61	7.26
Villa 80	Bernesga Mb.	1.04	0.00	10.92	2.56	0.00	2.32	3.20	7.25
Villa 81	Bernesga Mb.	1.25	0.43	11.45	3.13	0.00	2.39	3.88	7.86
Villa 82	Bernesga Mb.	1.67	0.64	13.12	3.15	0.00	2.49	4.68	7.36
Villa 83	Bernesga Mb.	0.99	0.58	11.26	3.73	0.00	1.89	6.20	7.82
Villa 84	Bernesga Mb.	0.95	0.70	12.25	2.66	0.00	1.89	4.55	8.28
Villa 85	Bernesga Mb.	2.29	0.61	11.13	3.05	0.00	2.02	4.83	8.05
Villa 86	Bernesga Mb.	2.00	0.77	12.43	3.35	0.00	2.40	6.83	7.89
Villa 87	Bernesga Mb.	3.93	0.71	12.57	5.48	0.00	3.66	5.96	6.34
Villa 88	Bernesga Mb.	1.78	0.64	14.36	2.50	0.00	1.96	4.07	6.98
Villa 89	Bernesga Mb.	1.19	0.74	15.00	0.00	0.00	2.26	4.17	7.50
Villa 90	Bernesga Mb.	0.94	0.70	13.02	3.25	0.00	1.76	6.35	7.83
Villa 91	Bernesga Mb.	0.95	0.72	11.86	3.87	0.00	1.64	5.05	7.58
Villa 92	Bernesga Mb.	1.28	0.66	11.82	3.41	0.00	2.16	5.69	6.78
Villa 93	Bernesga Mb.	0.93	0.67	12.25	0.00	0.00	1.98	3.17	8.26
Villa 94	Bernesga Mb.	1.27	0.69	13.02	2.22	0.00	1.62	3.91	7.01
Villa 95	Bernesga Mb.	1.07	1.06	13.01	0.00	0.00	1.51	3.90	7.36
Villa 96	Bernesga Mb.	1.62	0.87	13.36	2.40	0.00	2.17	4.10	7.35
Villa 97	Bernesga Mb.	0.74	0.74	14.84	0.00	2.19	0.90	3.34	8.75
Villa 98	Bernesga Mb.	1.43	0.63	13.61	2.43	0.00	2.33	4.91	7.34
Villa 99	Bernesga Mb.	1.42	0.75	13.51	2.72	0.00	2.03	4.68	7.44
Villa 100	Bernesga Mb.	1.91	0.51	11.45	3.47	0.00	2.66	4.69	6.74

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
Villa 76	Bernesga Mb.	0.00	11.48	35.58	33.12	7.59	0.66	24.32	0.00
Villa 77	Bernesga Mb.	0.00	11.71	29.41	20.78	8.23	0.71	20.10	0.00
Villa 78	Bernesga Mb.	0.00	10.28	26.06	19.28	7.10	0.78	17.81	0.00
Villa 79	Bernesga Mb.	0.00	11.11	28.36	20.79	7.79	0.77	19.38	0.00
Villa 80	Bernesga Mb.	0.00	10.12	25.34	21.53	7.16	0.77	17.32	0.00
Villa 81	Bernesga Mb.	0.00	10.75	26.62	19.84	7.18	0.75	18.19	0.00
Villa 82	Bernesga Mb.	0.00	11.13	26.13	25.19	7.96	0.74	17.85	0.00
Villa 83	Bernesga Mb.	0.00	10.58	26.74	22.39	7.71	0.64	18.27	0.00
Villa 84	Bernesga Mb.	0.00	11.78	29.85	24.16	9.84	0.73	20.40	0.00
Villa 85	Bernesga Mb.	0.00	10.53	27.09	29.53	7.96	0.70	18.52	0.00
Villa 86	Bernesga Mb.	0.00	11.29	29.70	27.42	8.80	0.65	20.30	0.00
Villa 87	Bernesga Mb.	0.33	11.15	29.93	36.05	8.78	0.68	20.45	0.17
Villa 88	Bernesga Mb.	0.00	10.67	27.37	23.39	7.57	0.78	18.70	0.00
Villa 89	Bernesga Mb.	0.00	11.08	27.68	20.12	9.21	0.78	18.92	0.00
Villa 90	Bernesga Mb.	0.00	10.92	28.25	17.59	7.14	0.67	19.31	0.00
Villa 91	Bernesga Mb.	0.00	10.78	27.91	24.72	7.34	0.70	19.07	0.00
Villa 92	Bernesga Mb.	0.00	10.27	26.90	17.89	7.09	0.67	18.38	0.00
Villa 93	Bernesga Mb.	0.00	10.78	26.78	16.57	7.40	0.79	18.30	0.00
Villa 94	Bernesga Mb.	0.00	10.53	27.05	18.76	7.22	0.77	18.48	0.00
Villa 95	Bernesga Mb.	0.24	11.15	28.03	15.44	7.73	0.77	19.15	0.13
Villa 96	Bernesga Mb.	0.33	11.19	28.43	22.57	8.65	0.77	19.43	0.17
Villa 97	Bernesga Mb.	0.00	11.87	29.44	9.26	8.32	0.82	20.12	0.00
Villa 98	Bernesga Mb.	0.00	10.99	28.25	23.39	6.77	0.73	19.30	0.00
Villa 99	Bernesga Mb.	0.00	10.82	28.02	25.67	7.05	0.74	19.15	0.00
Villa 100	Bernesga Mb.	0.00	10.53	28.06	27.77	6.19	0.71	19.17	0.00

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
Villa 76	Bernesga Mb.	< D.L.	< D.L.	1.45	< D.L.	< D.L.	2.86	0.46	3.08	0.01	0.00	0.00
Villa 77	Bernesga Mb.	< D.L.	0.00	1.61	< D.L.	< D.L.	1.60	0.20	1.87	0.01	0.00	0.00
Villa 78	Bernesga Mb.	< D.L.	0.00	1.61	< D.L.	< D.L.	1.52	0.18	1.49	0.01	0.00	0.00
Villa 79	Bernesga Mb.	< D.L.	0.00	1.62	< D.L.	< D.L.	1.65	0.22	1.78	0.01	0.00	0.00
Villa 80	Bernesga Mb.	< D.L.	0.00	1.63	< D.L.	< D.L.	1.61	0.21	1.82	0.01	0.00	0.00
Villa 81	Bernesga Mb.	1.57	0.63	1.53	16.63	< D.L.	1.65	0.22	2.06	0.01	0.00	0.00
Villa 82	Bernesga Mb.	0.66	1.52	1.61	12.47	< D.L.	1.79	0.25	2.64	0.01	0.00	0.00
Villa 83	Bernesga Mb.	1.35	0.74	1.69	13.21	< D.L.	1.37	0.14	1.64	0.01	0.00	0.00
Villa 84	Bernesga Mb.	1.52	0.66	1.76	14.12	< D.L.	1.40	0.15	1.40	0.01	0.00	0.00
Villa 85	Bernesga Mb.	0.71	1.41	1.54	13.14	< D.L.	2.47	0.39	3.81	0.01	0.00	0.00
Villa 86	Bernesga Mb.	0.95	1.05	1.65	11.43	< D.L.	1.88	0.27	3.06	0.01	0.00	0.00
Villa 87	Bernesga Mb.	0.00	< D.L.	1.54	12.32	< D.L.	3.12	0.49	6.17	0.01	0.00	0.00
Villa 88	Bernesga Mb.	0.92	1.09	1.61	11.88	< D.L.	1.76	0.24	2.90	0.01	0.00	0.00
Villa 89	Bernesga Mb.	1.10	0.91	1.75	12.50	< D.L.	1.40	0.15	1.87	0.01	0.00	0.00
Villa 90	Bernesga Mb.	1.01	0.99	1.62	10.24	< D.L.	1.38	0.14	1.49	0.01	0.00	0.00
Villa 91	Bernesga Mb.	0.93	1.07	1.67	10.24	< D.L.	1.43	0.16	1.53	0.01	0.00	0.00
Villa 92	Bernesga Mb.	0.95	1.06	1.65	10.68	< D.L.	1.58	0.20	2.15	0.01	0.00	0.00
Villa 93	Bernesga Mb.	1.41	0.71	1.63	11.07	< D.L.	1.43	0.16	1.52	0.01	0.00	0.00
Villa 94	Bernesga Mb.	0.98	1.02	1.59	10.39	< D.L.	1.67	0.22	2.09	0.01	0.00	0.00
Villa 95	Bernesga Mb.	0.82	1.22	1.70	7.32	< D.L.	1.27	0.10	1.68	0.01	0.00	0.00
Villa 96	Bernesga Mb.	0.72	1.40	1.71	9.91	< D.L.	1.65	0.22	2.52	0.01	0.00	0.00
Villa 97	Bernesga Mb.	1.62	0.62	1.73	11.24	0.34	1.09	0.04	1.10	0.01	0.00	0.00
Villa 98	Bernesga Mb.	1.07	0.94	1.55	10.83	< D.L.	1.70	0.23	2.25	0.01	0.00	0.00
Villa 99	Bernesga Mb.	0.77	1.29	1.59	9.41	< D.L.	1.84	0.26	2.28	0.01	0.00	0.00
Villa 100	Bernesga Mb.	0.00	< D.L.	1.37	12.07	< D.L.	2.55	0.41	3.08	0.01	0.00	0.00

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	V (wt%)	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
Villa 76	Bernesga Mb.	0.00	0.00	0.00	0.00	0.02	7.08	11.45	363048.42	1380.33	-12.10
Villa 77	Bernesga Mb.	0.00	0.00	0.00	-4.49	0.02	7.39	12.32	381383.97	1098.57	-20.15
Villa 78	Bernesga Mb.	0.00	0.00	0.00	-4.36	0.02	7.55	12.14	415424.50	854.53	-25.21
Villa 79	Bernesga Mb.	0.00	0.00	0.00	-2.99	0.02	7.49	12.30	388140.23	2764.03	-21.26
Villa 80	Bernesga Mb.	0.00	0.00	0.00	-3.75	0.02	7.59	12.50	418280.92	2529.33	-25.26
Villa 81	Bernesga Mb.	0.00	0.00	0.00	3.38	0.02	7.41	11.81	398574.37	1032.00	-23.50
Villa 82	Bernesga Mb.	0.00	0.00	0.00	7.87	0.02	7.25	12.58	386758.22	1131.30	-19.83
Villa 83	Bernesga Mb.	0.00	0.00	0.00	5.28	0.02	7.23	12.72	404886.16	1335.37	-24.57
Villa 84	Bernesga Mb.	0.00	0.00	0.00	5.09	0.02	7.47	14.54	381594.67	951.23	-21.11
Villa 85	Bernesga Mb.	0.00	0.00	0.00	7.70	0.02	7.43	13.24	401559.77	1138.37	-17.97
Villa 86	Bernesga Mb.	0.00	0.00	0.00	8.04	0.02	7.35	13.45	380458.53	1410.47	-19.10
Villa 87	Bernesga Mb.	0.00	0.00	0.00	11.18	0.02	7.19	13.77	383843.01	1508.87	-11.73
Villa 88	Bernesga Mb.	0.00	0.00	0.00	7.22	0.02	7.17	12.35	397439.53	983.73	-21.36
Villa 89	Bernesga Mb.	0.00	0.00	0.00	7.34	0.02	7.12	14.46	401675.73	1009.93	-23.13
Villa 90	Bernesga Mb.	0.00	0.00	0.00	7.32	0.02	7.27	11.32	388864.34	1285.90	-23.89
Villa 91	Bernesga Mb.	0.00	0.00	0.00	7.94	0.02	7.31	11.80	392207.92	1074.17	-23.50
Villa 92	Bernesga Mb.	0.00	0.00	0.00	7.63	0.02	7.34	11.90	406521.52	1316.17	-24.32
Villa 93	Bernesga Mb.	0.00	0.00	0.00	5.74	0.02	7.50	12.00	403817.73	835.77	-24.59
Villa 94	Bernesga Mb.	0.00	0.00	0.00	7.69	0.02	7.32	11.88	407347.54	909.07	-23.69
Villa 95	Bernesga Mb.	0.00	0.00	0.00	11.99	0.02	6.91	12.09	392188.16	846.87	-23.79
Villa 96	Bernesga Mb.	0.00	0.00	0.00	10.34	0.02	7.06	13.46	386646.60	974.53	-21.53
Villa 97	Bernesga Mb.	0.00	0.00	0.00	5.05	0.02	7.36	12.36	381346.20	629.27	-23.86
Villa 98	Bernesga Mb.	0.00	0.00	0.00	6.34	0.02	6.94	10.65	389775.67	1139.63	-21.03
Villa 99	Bernesga Mb.	0.00	0.00	0.00	8.92	0.02	7.16	11.32	384013.65	1077.60	-21.00
Villa 100	Bernesga Mb.	0.00	0.00	0.00	8.29	0.02	6.56	10.01	399409.29	1188.43	-17.31

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
Villa 76	Bernesga Mb.	-5.65	15.40	2.61	1.86	95.36	95.89
Villa 77	Bernesga Mb.	-9.42	15.28	-1.21	0.89	95.00	95.62
Villa 78	Bernesga Mb.	-11.78	17.44	-2.42	0.83	95.60	96.09
Villa 79	Bernesga Mb.	-9.94	16.11	-1.29	0.89	95.18	95.76
Villa 80	Bernesga Mb.	-11.80	17.81	-2.24	0.84	95.69	96.16
Villa 81	Bernesga Mb.	-10.98	16.79	-1.97	0.85	95.65	96.12
Villa 82	Bernesga Mb.	-9.27	16.12	-0.61	0.94	95.11	95.71
Villa 83	Bernesga Mb.	-11.48	16.84	-2.44	0.82	95.25	95.82
Villa 84	Bernesga Mb.	-9.87	15.07	-1.77	0.85	94.86	95.51
Villa 85	Bernesga Mb.	-8.40	16.96	0.71	1.09	95.74	96.20
Villa 86	Bernesga Mb.	-8.93	15.59	-0.55	0.94	95.25	95.81
Villa 87	Bernesga Mb.	-5.48	16.00	3.11	2.31	95.58	96.07
Villa 88	Bernesga Mb.	-9.98	16.65	-1.04	0.91	95.30	95.86
Villa 89	Bernesga Mb.	-10.81	16.02	-2.20	0.83	95.18	95.76
Villa 90	Bernesga Mb.	-11.16	16.17	-2.48	0.82	95.35	95.89
Villa 91	Bernesga Mb.	-10.98	16.39	-2.18	0.83	95.25	95.82
Villa 92	Bernesga Mb.	-11.36	17.11	-2.18	0.84	95.61	96.09
Villa 93	Bernesga Mb.	-11.49	16.55	-2.60	0.82	95.57	96.06
Villa 94	Bernesga Mb.	-11.07	16.79	-2.05	0.84	95.74	96.20
Villa 95	Bernesga Mb.	-11.12	15.97	-2.54	0.81	95.04	95.66
Villa 96	Bernesga Mb.	-10.06	15.87	-1.53	0.87	95.37	95.90
Villa 97	Bernesga Mb.	-11.15	15.16	-3.01	0.79	94.93	95.56
Villa 98	Bernesga Mb.	-9.83	16.05	-1.21	0.89	95.27	95.83
Villa 99	Bernesga Mb.	-9.81	16.40	-1.01	0.91	95.46	95.97
Villa 100	Bernesga Mb.	-8.09	16.49	0.77	1.10	95.80	96.24

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
Villa 76	Bernesga Mb.	86.05	8.32	-2.71	8.35
Villa 77	Bernesga Mb.	85.09	4.73	-1.44	4.76
Villa 78	Bernesga Mb.	86.49	6.68	-1.14	6.71
Villa 79	Bernesga Mb.	85.47	5.82	-1.22	5.86
Villa 80	Bernesga Mb.	86.72	7.38	-1.14	7.42
Villa 81	Bernesga Mb.	86.71	6.57	-1.44	6.60
Villa 82	Bernesga Mb.	85.28	6.46	-1.22	6.50
Villa 83	Bernesga Mb.	85.57	5.56	-1.01	5.59
Villa 84	Bernesga Mb.	84.72	3.78	-1.30	3.82
Villa 85	Bernesga Mb.	86.96	9.21	-1.93	9.25
Villa 86	Bernesga Mb.	85.73	5.87	-1.75	5.91
Villa 87	Bernesga Mb.	86.61	11.31	-1.56	11.34
Villa 88	Bernesga Mb.	85.74	7.05	-1.07	7.09
Villa 89	Bernesga Mb.	85.47	5.24	-0.97	5.27
Villa 90	Bernesga Mb.	85.92	4.88	-1.39	4.92
Villa 91	Bernesga Mb.	85.63	5.23	-1.26	5.26
Villa 92	Bernesga Mb.	86.55	6.28	-1.56	6.31
Villa 93	Bernesga Mb.	86.50	5.87	-1.12	5.90
Villa 94	Bernesga Mb.	86.98	6.67	-1.52	6.70
Villa 95	Bernesga Mb.	85.10	4.89	-0.71	4.92
Villa 96	Bernesga Mb.	86.03	5.86	-1.41	5.89
Villa 97	Bernesga Mb.	84.90	3.46	-0.73	3.49
Villa 98	Bernesga Mb.	85.73	6.18	-1.34	6.21
Villa 99	Bernesga Mb.	86.21	6.74	-1.57	6.77
Villa 100	Bernesga Mb.	87.19	8.86	-2.39	8.89

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
Villa 76	Bernesga Mb.	-1.43	4.52	-49.24	0.74
Villa 77	Bernesga Mb.	-0.09	4.69	-43.46	0.83
Villa 78	Bernesga Mb.	0.23	4.61	-46.27	0.85
Villa 79	Bernesga Mb.	0.16	4.68	-44.92	0.83
Villa 80	Bernesga Mb.	0.23	4.59	-47.28	0.84
Villa 81	Bernesga Mb.	-0.14	4.66	-44.77	0.84
Villa 82	Bernesga Mb.	0.18	4.69	-46.43	0.81
Villa 83	Bernesga Mb.	0.41	4.77	-45.02	0.85
Villa 84	Bernesga Mb.	0.07	4.72	-42.16	0.84
Villa 85	Bernesga Mb.	-0.63	4.39	-50.66	0.78
Villa 86	Bernesga Mb.	-0.43	4.64	-44.83	0.81
Villa 87	Bernesga Mb.	-0.30	4.16	-53.65	0.74
Villa 88	Bernesga Mb.	0.32	4.65	-47.11	0.82
Villa 89	Bernesga Mb.	0.40	4.67	-44.37	0.85
Villa 90	Bernesga Mb.	-0.05	4.82	-42.32	0.86
Villa 91	Bernesga Mb.	0.13	4.80	-43.67	0.85
Villa 92	Bernesga Mb.	-0.22	4.70	-45.35	0.85
Villa 93	Bernesga Mb.	0.19	4.62	-43.82	0.86
Villa 94	Bernesga Mb.	-0.24	4.58	-45.27	0.84
Villa 95	Bernesga Mb.	0.69	4.83	-43.07	0.86
Villa 96	Bernesga Mb.	-0.10	4.71	-43.87	0.83
Villa 97	Bernesga Mb.	0.63	4.81	-39.98	0.87
Villa 98	Bernesga Mb.	0.01	4.71	-45.24	0.83
Villa 99	Bernesga Mb.	-0.24	4.74	-45.20	0.82
Villa 100	Bernesga Mb.	-1.15	4.49	-49.96	0.78

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
Villa 76	Bernesga Mb.	8.38	0.59	1.00	< D.L.	1.00	< D.L.	< D.L.
Villa 77	Bernesga Mb.	4.84	0.47	1.00	< D.L.	1.00	< D.L.	< D.L.
Villa 78	Bernesga Mb.	4.56	0.41	1.00	< D.L.	1.00	< D.L.	< D.L.
Villa 79	Bernesga Mb.	5.02	0.46	1.00	< D.L.	1.00	< D.L.	< D.L.
Villa 80	Bernesga Mb.	4.83	0.42	1.00	< D.L.	1.00	< D.L.	< D.L.
Villa 81	Bernesga Mb.	4.78	0.42	4.00	4.00	1.00	0.00	9.00
Villa 82	Bernesga Mb.	5.76	0.48	4.00	4.00	1.00	0.00	9.00
Villa 83	Bernesga Mb.	4.53	0.43	4.00	4.00	1.00	0.00	9.00
Villa 84	Bernesga Mb.	4.25	0.46	4.00	4.00	1.00	0.00	9.00
Villa 85	Bernesga Mb.	7.03	0.50	4.00	4.00	1.00	0.00	9.00
Villa 86	Bernesga Mb.	5.53	0.48	4.00	4.00	1.00	0.00	9.00
Villa 87	Bernesga Mb.	8.89	0.55	4.00	4.00	4.00	0.00	12.00
Villa 88	Bernesga Mb.	5.66	0.46	4.00	4.00	1.00	0.00	9.00
Villa 89	Bernesga Mb.	4.46	0.43	4.00	4.00	1.00	0.00	9.00
Villa 90	Bernesga Mb.	4.20	0.42	4.00	4.00	1.00	0.00	9.00
Villa 91	Bernesga Mb.	4.51	0.43	4.00	4.00	1.00	0.00	9.00
Villa 92	Bernesga Mb.	4.77	0.43	4.00	4.00	1.00	0.00	9.00
Villa 93	Bernesga Mb.	4.12	0.40	4.00	4.00	1.00	0.00	9.00
Villa 94	Bernesga Mb.	4.76	0.41	4.00	4.00	1.00	0.00	9.00
Villa 95	Bernesga Mb.	4.28	0.42	4.00	4.00	4.00	0.00	12.00
Villa 96	Bernesga Mb.	5.02	0.44	4.00	4.00	4.00	0.00	12.00
Villa 97	Bernesga Mb.	3.32	0.40	4.00	4.00	1.00	0.00	9.00
Villa 98	Bernesga Mb.	5.46	0.45	4.00	4.00	1.00	0.00	9.00
Villa 99	Bernesga Mb.	5.61	0.46	4.00	4.00	1.00	0.00	9.00
Villa 100	Bernesga Mb.	7.81	0.50	4.00	4.00	1.00	0.00	9.00

5.5 Villa 101 - 111

Sample	Formation	U API (oersted)	Th API (oersted)	K API (oersted)	Gamma Ray Log (U, Th + K) (oersted)	Computed Gamma Ray (oersted)
Villa 101	Bernesga Mb.	71.25	13.72	38.04	123.00	51.76
Villa 102	Bernesga Mb.	51.15	27.21	39.75	118.10	66.96
Villa 103	Bernesga Mb.	85.65	52.85	40.29	178.80	93.14
Villa 104	Bernesga Mb.	76.58	40.23	41.71	158.52	81.94
Villa 105	Bernesga Mb.	71.78	24.71	39.22	135.70	63.92
Villa 106	Bernesga Mb.	76.98	35.39	39.66	152.03	75.05
Villa 107	Bernesga Mb.	71.07	29.68	39.43	140.18	69.11
Villa 108	Bernesga Mb.	65.36	0.00	32.20	97.56	32.20
Villa 109	Bernesga Mb.	63.66	18.33	30.52	112.50	48.85
Villa 110	Bernesga Mb.	93.97	28.47	44.36	166.81	72.84
Villa 111	Bernesga Mb.	54.92	0.00	35.90	90.83	35.90

Sample	Formation	U API (Standard)	Th API (Standard)	K API (Standard)	Gamma Ray Log (U, Th + K) (Standard)	Computed Gamma Ray (Standard)
Villa 101	Bernesga Mb.	85.20	21.60	57.20	164.00	78.80
Villa 102	Bernesga Mb.	61.16	42.85	59.77	163.78	102.62
Villa 103	Bernesga Mb.	102.43	83.23	60.59	246.25	143.82
Villa 104	Bernesga Mb.	91.57	63.35	62.73	217.65	126.07
Villa 105	Bernesga Mb.	85.84	38.91	58.97	183.72	97.88
Villa 106	Bernesga Mb.	92.05	55.73	59.63	207.42	115.37
Villa 107	Bernesga Mb.	84.99	46.75	59.29	191.02	106.04
Villa 108	Bernesga Mb.	78.16	0.00	48.41	126.57	48.41
Villa 109	Bernesga Mb.	76.12	28.87	45.89	150.88	74.76
Villa 110	Bernesga Mb.	112.37	44.84	66.71	223.92	111.55
Villa 111	Bernesga Mb.	65.68	0.00	53.99	119.67	53.99

Sample	Formation	U*10	U*20	Uauth	TOC Wt%	OM (organic matter)	Al2O3+K2O+Na2O	Fe2O3+MgO	Al2O3*5	10Al2O3
Villa 101	Bernesga Mb.	106.50	213.00	8.85	3.69	4.94	35.12	9.26	151.36	302.72
Villa 102	Bernesga Mb.	76.45	152.90	4.07	2.38	3.18	34.79	6.65	148.69	297.39
Villa 103	Bernesga Mb.	128.03	256.07	5.87	4.42	5.92	34.46	5.20	146.70	293.41
Villa 104	Bernesga Mb.	114.47	228.93	6.17	3.98	5.33	35.14	6.14	149.28	298.55
Villa 105	Bernesga Mb.	107.30	214.60	7.49	3.72	4.98	32.99	6.66	140.02	280.04
Villa 106	Bernesga Mb.	115.07	230.13	6.86	4.00	5.35	35.82	6.61	153.89	307.78
Villa 107	Bernesga Mb.	106.23	212.47	6.73	3.68	4.93	36.05	7.34	155.20	310.40
Villa 108	Bernesga Mb.	97.70	195.40	9.77	3.35	4.49	33.78	18.79	148.17	296.35
Villa 109	Bernesga Mb.	95.15	190.30	7.11	3.24	4.34	27.76	5.50	119.07	238.13
Villa 110	Bernesga Mb.	140.47	280.93	10.31	4.79	6.41	35.05	7.04	147.24	294.48
Villa 111	Bernesga Mb.	82.10	164.20	8.21	2.66	3.56	34.82	10.51	151.15	302.30

Sample	Formation	15Al2O3	Al2O3/10	K2O *5	CaO*2	MgO *10	Fex (reactive)	Fe (wt%)	FeO (wt%)	200TiO2	300TiO2	K2O/Al2O3
Villa 101	Bernesga Mb.	454.09	3.03	17.88	0.00	11.35	16782.35	5.68	7.31	229.54	344.31	0.12
Villa 102	Bernesga Mb.	446.08	2.97	18.68	0.00	11.22	-669.82	3.87	4.98	235.59	353.39	0.13
Villa 103	Bernesga Mb.	440.11	2.93	18.94	0.00	11.65	-10631.36	2.82	3.63	246.08	369.12	0.13
Villa 104	Bernesga Mb.	447.83	2.99	19.60	0.00	12.58	-5351.22	3.42	4.39	244.39	366.58	0.13
Villa 105	Bernesga Mb.	420.06	2.80	18.43	0.00	10.22	2408.30	3.95	5.08	230.38	345.57	0.13
Villa 106	Bernesga Mb.	461.67	3.08	18.64	0.00	11.65	-2657.41	3.81	4.90	237.99	356.99	0.12
Villa 107	Bernesga Mb.	465.59	3.10	18.53	0.00	12.50	1490.89	4.26	5.48	238.92	358.38	0.12
Villa 108	Bernesga Mb.	444.52	2.96	15.13	0.41	10.38	84936.23	12.41	15.97	179.51	269.26	0.10
Villa 109	Bernesga Mb.	357.20	2.38	14.34	0.00	0.00	6983.55	3.85	4.95	204.18	306.27	0.12
Villa 110	Bernesga Mb.	441.72	2.94	20.85	0.00	10.29	3048.88	4.20	5.40	245.58	368.37	0.14
Villa 111	Bernesga Mb.	453.45	3.02	16.87	0.00	10.20	26348.46	6.63	8.54	214.77	322.16	0.11

Sample	Formation	log (K2O/Al2O3)	MgO/Al2O3	Log Fe2O3	Log (SiO2/Al2O3)	Na2O/K2O	K2O/Na2O	Log (Na2O/K2O)	Al2O3/(CaO+Na2O)
Villa 101	Bernesga Mb.	-0.93	0.04	0.91	0.19	0.36	2.81	-0.45	23.81
Villa 102	Bernesga Mb.	-0.90	0.04	0.74	0.23	0.35	2.84	-0.45	22.60
Villa 103	Bernesga Mb.	-0.89	0.04	0.61	0.25	0.35	2.85	-0.45	22.06
Villa 104	Bernesga Mb.	-0.88	0.04	0.69	0.24	0.35	2.87	-0.46	21.84
Villa 105	Bernesga Mb.	-0.88	0.04	0.75	0.25	0.35	2.83	-0.45	21.51
Villa 106	Bernesga Mb.	-0.92	0.04	0.74	0.21	0.35	2.84	-0.45	23.43
Villa 107	Bernesga Mb.	-0.92	0.04	0.78	0.21	0.35	2.83	-0.45	23.74
Villa 108	Bernesga Mb.	-0.99	0.04	1.25	0.20	0.37	2.70	-0.43	22.39
Villa 109	Bernesga Mb.	-0.92	0.00	0.74	0.38	0.38	2.67	-0.43	22.14
Villa 110	Bernesga Mb.	-0.85	0.04	0.78	0.21	0.34	2.90	-0.46	20.51
Villa 111	Bernesga Mb.	-0.95	0.03	0.98	0.22	0.36	2.78	-0.44	24.87

Sample	Formation	CaO+Na2O	CaO+Na2O+K2O	Fe2O3+MgO	SiO2/Al2O3	Log (SiO2/Al2O3)	Al2O3/SiO2	Fe2O/Al2O3	Rb/K2O	Rb/K
Villa 101	Bernesga Mb.	1.27	4.85	9.26	1.57	0.19	0.64	0.27	41.57	0.01
Villa 102	Bernesga Mb.	1.32	5.05	6.65	1.68	0.23	0.59	0.19	44.82	0.01
Villa 103	Bernesga Mb.	1.33	5.12	5.20	1.76	0.25	0.57	0.14	48.91	0.01
Villa 104	Bernesga Mb.	1.37	5.29	6.14	1.72	0.24	0.58	0.16	45.91	0.01
Villa 105	Bernesga Mb.	1.30	4.99	6.66	1.78	0.25	0.56	0.20	43.29	0.01
Villa 106	Bernesga Mb.	1.31	5.04	6.61	1.63	0.21	0.61	0.18	45.23	0.01
Villa 107	Bernesga Mb.	1.31	5.01	7.34	1.63	0.21	0.61	0.20	44.00	0.01
Villa 108	Bernesga Mb.	1.32	4.35	18.79	1.58	0.20	0.63	0.60	35.07	0.00
Villa 109	Bernesga Mb.	1.08	3.94	5.50	2.38	0.38	0.42	0.23	41.43	0.01
Villa 110	Bernesga Mb.	1.44	5.61	7.04	1.64	0.21	0.61	0.20	42.70	0.01
Villa 111	Bernesga Mb.	1.22	4.59	10.51	1.65	0.22	0.61	0.31	39.52	0.00

Sample	Formation	Al2O3/TiO2	TiO2/Nb	Ti/Nb	Cu/Zn	Cr + Ni	Ni/V	Cr/Rb	V/Rb	V/Mo	V/Sc	Th/3	Ti Cal (ppm)	Zr/Sc	Cr/Th	Th/Sc
Villa 101	Bernesga Mb.	26.38	0.07	406.07	0.68	169.33	0.37	0.69	1.22	< D.L.	< D.L.	1.80	6879.46	< D.L.	18.88	< D.L.
Villa 102	Bernesga Mb.	25.25	0.06	368.24	0.63	190.27	0.30	0.75	1.27	< D.L.	8.15	3.57	7060.88	4.37	11.73	0.41
Villa 103	Bernesga Mb.	23.85	0.06	353.81	< D.L.	189.84	0.29	0.71	1.07	< D.L.	< D.L.	6.94	7375.17	< D.L.	6.33	< D.L.
Villa 104	Bernesga Mb.	24.43	0.06	369.50	< D.L.	184.18	0.32	0.65	1.17	< D.L.	< D.L.	5.28	7324.36	< D.L.	7.35	< D.L.
Villa 105	Bernesga Mb.	24.31	0.06	359.53	0.88	186.84	0.34	0.78	1.16	< D.L.	7.03	3.24	6904.57	4.41	12.81	0.37
Villa 106	Bernesga Mb.	25.86	0.06	387.37	0.65	196.06	0.34	0.76	1.17	< D.L.	6.82	4.64	7132.73	4.24	9.21	0.48
Villa 107	Bernesga Mb.	25.98	0.06	389.19	0.76	197.10	0.41	0.70	1.24	< D.L.	< D.L.	3.90	7160.49	< D.L.	9.73	< D.L.
Villa 108	Bernesga Mb.	33.02	0.07	406.67	0.30	208.88	0.69	0.90	1.54	< D.L.	< D.L.	0.00	5379.90	< D.L.	< D.L.	< D.L.
Villa 109	Bernesga Mb.	23.33	0.06	337.80	< D.L.	132.22	0.31	0.69	1.37	< D.L.	< D.L.	2.41	6119.30	< D.L.	11.34	< D.L.
Villa 110	Bernesga Mb.	23.98	0.06	381.28	< D.L.	197.81	0.33	0.69	1.25	< D.L.	< D.L.	3.74	7360.06	< D.L.	11.01	< D.L.
Villa 111	Bernesga Mb.	28.15	0.07	412.55	0.86	179.27	0.35	0.80	1.58	< D.L.	< D.L.	0.00	6436.77	< D.L.	< D.L.	< D.L.

Sample	Formation	Zr/Rb	Rb/Zr	Zr/Ti	Zr/Nb	Zr/Cr	Ba/Rb	Ni/Co	Cr/V	V/Cr
Villa 101	Bernesga Mb.	0.75	1.33	0.02	6.57	1.09	3.13	0.26	0.56	1.78
Villa 102	Bernesga Mb.	0.68	1.47	0.02	5.94	0.91	1.81	< D.L.	0.59	1.69
Villa 103	Bernesga Mb.	0.73	1.38	0.02	6.45	1.02	0.93	< D.L.	0.66	1.51
Villa 104	Bernesga Mb.	0.70	1.42	0.02	6.38	1.09	1.70	< D.L.	0.55	1.82
Villa 105	Bernesga Mb.	0.73	1.37	0.02	6.05	0.93	1.93	< D.L.	0.67	1.49
Villa 106	Bernesga Mb.	0.72	1.38	0.02	6.64	0.95	1.84	< D.L.	0.65	1.53
Villa 107	Bernesga Mb.	0.74	1.35	0.02	6.56	1.06	2.19	< D.L.	0.56	1.78
Villa 108	Bernesga Mb.	0.80	1.25	0.02	6.39	0.89	6.41	< D.L.	0.58	1.72
Villa 109	Bernesga Mb.	1.40	0.71	0.03	9.20	2.04	2.31	< D.L.	0.50	1.99
Villa 110	Bernesga Mb.	0.70	1.43	0.02	6.44	1.01	2.01	< D.L.	0.55	1.81
Villa 111	Bernesga Mb.	0.84	1.18	0.02	7.21	1.06	3.67	< D.L.	0.51	1.98

Sample	Formation	As/Al (x10^-4)	U/Al (x10^-4)	V/Al (x10^-4)	Zn/Al (x10^-4)	Pb/Al (x10^-4)	Cu/Al (x10^-4)	Ni/Al (x10^-4)	Cr/Al (x10^-4)
Villa 101	Bernesga Mb.	1.78	0.66	11.30	3.54	0.00	2.39	4.21	6.36
Villa 102	Bernesga Mb.	1.19	0.49	13.50	2.60	0.00	1.64	4.10	7.98
Villa 103	Bernesga Mb.	0.55	0.82	12.77	0.00	0.00	0.81	3.75	8.48
Villa 104	Bernesga Mb.	0.88	0.72	13.38	0.00	0.00	1.49	4.29	7.36
Villa 105	Bernesga Mb.	1.35	0.72	12.50	2.52	0.00	2.21	4.20	8.41
Villa 106	Bernesga Mb.	1.01	0.71	12.08	2.35	0.00	1.53	4.16	7.88
Villa 107	Bernesga Mb.	1.36	0.65	12.30	2.39	0.00	1.81	5.08	6.92
Villa 108	Bernesga Mb.	3.11	0.62	10.44	10.18	0.00	3.09	7.24	6.08
Villa 109	Bernesga Mb.	1.71	0.76	12.95	0.00	0.00	2.47	4.00	6.49
Villa 110	Bernesga Mb.	1.48	0.90	14.33	0.00	0.00	2.70	4.77	7.92
Villa 111	Bernesga Mb.	2.20	0.51	13.16	3.61	0.00	3.09	4.56	6.65

Sample	Formation	Mo/Al (x10^-4)	Sr/Al (x10^-4)	Mn/Al (x10^-4)	Ba/Al (x10^-4)	Zr/Al (x10^-4)	V/(V+Ni)	MnO/Al2O3	Mo/Al2O3
Villa 101	Bernesga Mb.	0.00	10.76	27.76	29.08	6.95	0.73	18.97	0.00
Villa 102	Bernesga Mb.	0.00	11.17	28.13	19.29	7.23	0.77	19.22	0.00
Villa 103	Bernesga Mb.	0.00	11.40	28.35	11.05	8.66	0.77	19.37	0.00
Villa 104	Bernesga Mb.	0.00	11.14	28.38	19.42	8.00	0.76	19.40	0.00
Villa 105	Bernesga Mb.	0.00	11.68	29.87	20.73	7.84	0.75	20.42	0.00
Villa 106	Bernesga Mb.	0.00	10.71	27.19	19.01	7.50	0.74	18.58	0.00
Villa 107	Bernesga Mb.	0.00	10.62	26.75	21.70	7.35	0.71	18.28	0.00
Villa 108	Bernesga Mb.	0.00	10.69	26.31	43.40	5.39	0.59	17.98	0.00
Villa 109	Bernesga Mb.	0.00	13.50	34.63	21.82	13.22	0.76	23.67	0.00
Villa 110	Bernesga Mb.	0.00	11.31	28.65	22.99	7.98	0.75	19.58	0.00
Villa 111	Bernesga Mb.	0.00	10.74	28.27	30.61	7.04	0.74	19.32	0.00

Sample	Formation	Th/U	U/Th	(Zr+Rb)/Sr	Zr/U	U/Pb	Fe2O3/K2O	Log (Fe2O3/K2O)	As/10	Cr (wt%)	S (wt%)	S (wt%) *10
Villa 101	Bernesga Mb.	0.51	1.97	1.51	10.46	< D.L.	2.27	0.36	2.85	0.01	0.00	0.00
Villa 102	Bernesga Mb.	1.40	0.71	1.60	14.89	< D.L.	1.48	0.17	1.88	0.01	0.00	0.00
Villa 103	Bernesga Mb.	1.63	0.62	1.81	10.51	< D.L.	1.06	0.03	0.85	0.01	0.00	0.00
Villa 104	Bernesga Mb.	1.38	0.72	1.74	11.04	< D.L.	1.25	0.10	1.39	0.01	0.00	0.00
Villa 105	Bernesga Mb.	0.91	1.10	1.59	10.83	< D.L.	1.53	0.18	2.00	0.01	0.00	0.00
Villa 106	Bernesga Mb.	1.21	0.83	1.67	10.62	< D.L.	1.46	0.16	1.65	0.01	0.00	0.00
Villa 107	Bernesga Mb.	1.10	0.91	1.63	11.36	< D.L.	1.64	0.22	2.23	0.01	0.00	0.00
Villa 108	Bernesga Mb.	0.00	< D.L.	1.14	8.66	< D.L.	5.87	0.77	4.88	0.01	0.06	0.61
Villa 109	Bernesga Mb.	0.76	1.32	1.68	17.51	< D.L.	1.92	0.28	2.15	0.01	0.00	0.00
Villa 110	Bernesga Mb.	0.80	1.25	1.72	8.85	< D.L.	1.44	0.16	2.30	0.01	0.00	0.00
Villa 111	Bernesga Mb.	0.00	< D.L.	1.43	13.71	< D.L.	2.81	0.45	3.52	0.01	0.03	0.32

Sample	Formation	S2	SO (wt%)	SO2 (wt%)	Uauth	V (wt%)	(Cr+Ti)/1000	Zr/10	Si+Al	Cu+Co+Ni)*10	FeS2 (%)
Villa 101	Bernesga Mb.	0.00	0.00	0.00	8.85	0.02	6.98	11.14	381850.85	3617.33	-17.59
Villa 102	Bernesga Mb.	0.00	0.00	0.00	4.07	0.02	7.19	11.39	391330.68	903.63	-22.53
Villa 103	Bernesga Mb.	0.00	0.00	0.00	5.87	0.02	7.51	13.45	396697.74	707.10	-25.28
Villa 104	Bernesga Mb.	0.00	0.00	0.00	6.17	0.02	7.44	12.64	398025.01	913.83	-24.05
Villa 105	Bernesga Mb.	0.00	0.00	0.00	7.49	0.02	7.03	11.62	380724.35	949.77	-20.29
Villa 106	Bernesga Mb.	0.00	0.00	0.00	6.86	0.02	7.26	12.22	397113.89	926.03	-23.92
Villa 107	Bernesga Mb.	0.00	0.00	0.00	6.73	0.02	7.27	12.07	400304.17	1130.93	-22.85
Villa 108	Bernesga Mb.	1216.31	0.09	0.12	9.77	0.02	5.48	8.46	376366.65	1619.13	3.74
Villa 109	Bernesga Mb.	0.00	0.00	0.00	7.11	0.02	6.20	16.66	391223.98	815.43	-15.74
Villa 110	Bernesga Mb.	0.00	0.00	0.00	10.31	0.02	7.48	12.43	381245.32	1164.10	-21.18
Villa 111	Bernesga Mb.	631.05	0.05	0.06	8.21	0.02	6.54	11.26	393394.19	1223.87	-14.63

Sample	Formation	Fe (pyrite)	Fe (alum)	Fex (reactive)	DOP	PIA (Plagioclase Index of Alteration)	CIW (Chemical Index of Weathering)
Villa 101	Bernesga Mb.	-8.22	16.35	0.56	1.07	95.45	95.97
Villa 102	Bernesga Mb.	-10.53	16.06	-1.90	0.85	95.18	95.76
Villa 103	Bernesga Mb.	-11.81	15.84	-3.30	0.78	95.05	95.66
Villa 104	Bernesga Mb.	-11.24	16.12	-2.58	0.81	94.99	95.62
Villa 105	Bernesga Mb.	-9.48	15.12	-1.36	0.87	94.92	95.56
Villa 106	Bernesga Mb.	-11.18	16.62	-2.25	0.83	95.37	95.91
Villa 107	Bernesga Mb.	-10.68	16.76	-1.67	0.86	95.44	95.96
Villa 108	Bernesga Mb.	1.75	16.00	10.34	0.14	95.26	95.72
Villa 109	Bernesga Mb.	-7.36	12.86	-0.45	0.94	95.12	95.68
Villa 110	Bernesga Mb.	-9.90	15.90	-1.36	0.88	94.63	95.35
Villa 111	Bernesga Mb.	-6.84	16.32	1.93	1.39	95.67	96.13

Sample	Formation	CIA (Chemical Index of Alteration)	Discriminant Function 1	Discriminant Function 2	Discriminant Function 1a
Villa 101	Bernesga Mb.	86.20	8.01	-1.91	8.04
Villa 102	Bernesga Mb.	85.48	5.51	-1.02	5.54
Villa 103	Bernesga Mb.	85.15	3.91	-0.62	3.95
Villa 104	Bernesga Mb.	84.95	4.60	-0.70	4.64
Villa 105	Bernesga Mb.	84.88	4.79	-1.15	4.82
Villa 106	Bernesga Mb.	85.93	5.99	-0.99	6.03
Villa 107	Bernesga Mb.	86.10	6.53	-1.26	6.56
Villa 108	Bernesga Mb.	87.20	16.24	-5.21	16.27
Villa 109	Bernesga Mb.	85.79	4.79	-1.56	4.81
Villa 110	Bernesga Mb.	84.01	5.27	-0.36	5.31
Villa 111	Bernesga Mb.	86.82	9.54	-2.47	9.57

Sample	Formation	Discriminant Function 2a	Discriminant function 1 (tectonic)	Discriminant function 2 (tectonic)	Al2O3/Al2O3+Fe2O3+MnO
Villa 101	Bernesga Mb.	-0.59	4.65	-48.18	0.79
Villa 102	Bernesga Mb.	0.35	4.73	-44.07	0.84
Villa 103	Bernesga Mb.	0.76	4.74	-41.49	0.88
Villa 104	Bernesga Mb.	0.72	4.73	-43.52	0.86
Villa 105	Bernesga Mb.	0.21	4.73	-43.30	0.83
Villa 106	Bernesga Mb.	0.38	4.74	-44.39	0.85
Villa 107	Bernesga Mb.	0.11	4.68	-45.85	0.83
Villa 108	Bernesga Mb.	-3.95	4.09	-66.65	0.62
Villa 109	Bernesga Mb.	-0.44	4.24	-43.39	0.81
Villa 110	Bernesga Mb.	1.13	4.78	-44.89	0.83
Villa 111	Bernesga Mb.	-1.20	4.45	-51.81	0.76

Sample	Formation	Fe2O3/TiO2	Index of Comp Variability (ICV)	U > 6ppm	Th/U > 3	Mo/Al2O3 > 0.08	Zr/U > 65	Geochemical Classification
Villa 101	Bernesga Mb.	7.08	0.51	4.00	4.00	1.00	0.00	9.00
Villa 102	Bernesga Mb.	4.69	0.44	4.00	4.00	1.00	0.00	9.00
Villa 103	Bernesga Mb.	3.28	0.40	4.00	4.00	1.00	0.00	9.00
Villa 104	Bernesga Mb.	4.00	0.43	4.00	4.00	1.00	0.00	9.00
Villa 105	Bernesga Mb.	4.90	0.46	4.00	4.00	1.00	0.00	9.00
Villa 106	Bernesga Mb.	4.57	0.42	4.00	4.00	1.00	0.00	9.00
Villa 107	Bernesga Mb.	5.09	0.44	4.00	4.00	1.00	0.00	9.00
Villa 108	Bernesga Mb.	19.78	0.81	4.00	4.00	1.00	0.00	9.00
Villa 109	Bernesga Mb.	5.39	0.44	4.00	4.00	1.00	0.00	9.00
Villa 110	Bernesga Mb.	4.89	0.47	4.00	4.00	1.00	0.00	9.00
Villa 111	Bernesga Mb.	8.83	0.54	4.00	4.00	1.00	0.00	9.00

Sedimentary log appendix C (locality photo-plates)

Contents

1. Aralla photo-plates 959
2. Caldas de Luna photo-plates 970
3. La Majua photo-plates 971
4. Sena de Luna photo-plates 973
5. Villanueva photo-plates 974

1. Aralla photo-plates

Figures (field images) associated with the Aralla section

Photo 00687; Capturing the basal Formigoso Fm (Bernesga Member) - Masses of monograptid graptolites. The tape is for scale (10m).

Photo 00688; Next section of the basal Bernesga Member, tape for scale (10m from sign to field bag).

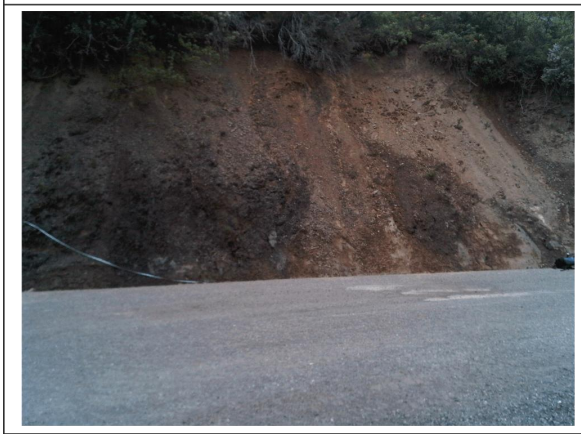

Photo 00689; The next 10m of the basal Formigoso Fm. The shales are slightly lighter - less organically enriched + the graptolites are less abundant.

Photo 00690; Shales lighter in colour - The monograptids less abundant (~3m with Photo 00691 inc)

Photo 00691; Approaching the sands and silts of the upper Villasimpliz Member.

Photo 00692; Tape measure is 3m across + the scale/orientation card is 15cm (centre of photo). The first sands and silts of the upper Villasimpliz Member. Intercalations less than 1cm in width.

Photo 00693; The tape is 2m across - Sands and silts of the upper Villasimpliz Member. The intercalations are less than 1cm in width.

Photo 00696; Tape is 3m across the sands are ~2cm in width at this point - the terrestrial input is starting to dominate the marine black shale facies.

Photo 00697; Villasimpliz Member, Scale card (15cm in length).

Photo 00698; Gap in section (Images 00698, 00699 and 00700) the gap in the log section measures 27.3m.

Photo 00699; Gap in section (Images 00698, 00699 and 00700) the gap in the log section measures 27.3m.

Photo 00700; Gap in section (Images 00698, 00699 and 00700) the gap in the log section measures 27.3m. The sand/Silts of the Villasimpliz Member can be seen towards the right side of the image.

Photo 00701; Sand bands starting to become more dominant - the thicker units express ripples on tops and heavy bioturbation at the bases.

Photo 00702; Villasimpliz Member, Scale card (15cm in length)

Photo 00704; Villasimpliz Member, Scale card (15cm in length)

Photo 00705; Villasimpliz Member, Scale card (15cm in length)

Photo 00706; Villasimpliz Member, Scale card (15cm in length)

Photo 00707; Villasimpliz Member, Scale card (15cm in length)

Photo 00708; Villasimpliz Member, Scale card (15cm in length)

Photo 00709; Villasimpliz Member, Scale card (15cm in length)

Photo 00710; Villasimpliz Member, Scale card (15cm in length)

Photo 00711; Villasimpliz Member, Scale card (15cm in length)

Photo 00712; Villasimpliz Member, Scale card (15cm in length)

Photo 00713; Villasimpliz Member, Scale card (15cm in length)

Photo 00714; Villasimpliz Member, Scale card (15cm in length)

Photo 00753; Villasimpliz Member, Scale card (15cm in length)

Photo 00754; Villasimpliz Member, Scale card (15cm in length)

Photo 00755; No exposure centre of photo ~1.5m. Villasimpliz Member, Scale card (15cm in length)

Photo 00756; Villasimpliz Member, Scale card (15cm in length). These 3 sandstone units were used as a marker horizon - named the 'Cantabrian Three Chimneys'.

Photo 00757; Villasimpliz Member, Scale card (15cm in length). No sandstone intercalations within this section - silt dominated.

Photo 00758; Villasimpliz Member, Scale card (15cm in length)

Photo 00759; Villasimpliz Member, Scale card (15cm in length) - silts appear to be slightly altered (weathering effect?). Massive bedded sandstone units seen towards the right of the photo).

Photo 00760; Villasimpliz Member, Scale card (15cm in length). The Massive bedded sandstone units (channel deposits). Truncating beds seen towards the centre of the image.

Photo 00761; Villasimpliz Member, Scale card (15cm in length), The sandstone unit expressing cross bedding. The sandstone units within this section show ripples on the tops and bioturbation at bases.

Photo 00762; Villasimpliz Member, Scale card (15cm in length), cross laminations apparent. Bioturbation at sandstone bases - oxygen rich sediments from the terrestrial hinterland into the anoxic zone.

Photo 00764; Villasimpliz Member, Scale card (15cm in length)

Photo 00765; Villasimpliz Member, Scale card (15cm in length)

Photo 00766; Villasimpliz Member, Scale card (15cm in length)

Photo 00771; Villasimpliz Member, Scale card (15cm in length). sandstone units heavily fractured (weathering process).

Photo 00772; Villasimpliz Member, Scale card (15cm in length)

Photo 00774; Villasimpliz Member, Scale card (15cm in length). Intercalated sands and silts - slightly altered by weathering?.

Photo 00775; Villasimpliz Member, Scale card (15cm in length). Intercalated sands and silts - slightly altered by weathering?.

Photo 00776; Villasimpliz Member, Scale card (15cm in length). Intercalated sands and silts - slightly altered by weathering?.

Photo 00777; Villasimpliz Member, Scale card (15cm in length). Intercalated sands and silts.

Photo 00778; Villasimpliz Member, Scale card (15cm in length). Intercalated sands and silts.

Photo 00779; Villasimpliz Member, Scale card (15cm in length). Intercalated sands and silts.

Photo 00780; Villasimpliz Member, Scale card (15cm in length). Intercalated sands and silts. Silt dominated

Photo 00781; Villasimpliz Member, Scale card (15cm in length). Possible shear zone (extensional fault). Shaly fabric.

Photo 00782; Villasimpliz Member, Scale card (15cm in length). Intercalated sands and silts. Symmetrical ripples indicate a palaeocurrent of N/S direction.

Photo 00783; Villasimpliz Member, Scale card (15cm in length). Section effected by normal fault.

Photo 00784; Villasimpliz Member, Scale card (15cm in length). Section effected by normal fault.

Photo 00785; Villasimpliz Member, Scale card (15cm in length). The thicker sandstone units are channelled - truncating beds.

Photo 00786; Villasimpliz Member, Scale card (15cm in length). Massive sandstone units (truncating) - channelled.

Photo 00787; Villasimpliz Member, Scale card (15cm in length).

Photo 00789; Villasimpliz Member, Scale card (15cm in length). Within fault zone (extensional). - Silts and sands intercalated

Photo 00790; Villasimpliz Member, Scale card (15cm in length). Heavily fractured sands.

Photo 00838; Villasimpliz Member, Scale card (15cm in length). Abundance of ripples (tops of sands) and bioturbation (base of sands).

Photo 00839; Villasimpliz Member, Scale card (15cm in length).

Photo 00840; Villasimpliz Member, Scale card (15cm in length). Heavily weathered sand and silts.

Photo 00841; Villasimpliz Member, Scale card (15cm in length). Approaching the boundary between the upper sands and silts of the Villasimpliz Member and the overlying San Pedro Fm.

Figures (field images) associated with the Aralla section continued..

Photo 00842; Villasimpliz Member, Scale card (15cm in length). Boundary between the Formigoso Fm and the overlying San Pedro Fm. Hematised sands in the centre of the image.

Figures associated with the high resolution (1cm) Aralla section

The following images are associated with the high resolution log section at the base of the Aralla section (pink shaded region at the base of the log section) ~ 3.78m were analysed at a 1cm resolution with the Niton Xl3t XRF. 31 readings were taken from the Getino beds at the Aralla section (the intervals can be seen in the photos below) and 339 readings of the basal Formigoso Fm (Bernesga Member). The 339 readings of the basal Formigoso Fm. were equivalent to ~ 17 samples (at the 25cm resolution). The 17 samples of the 25cm resolution log represented the first major cycle in the Uppm readings. The idea was to see if there was a higher order cyclicity superimposed upon the 25cm resolution cyclicity.

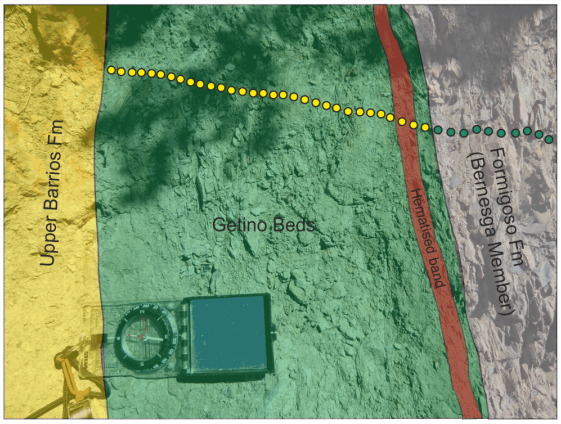

Photo 100-2275; The Getino Beds, the yellow dots represent the area analysed (31 readings at 1cm resolution for the Getino Beds), the green dots represent the basal Formigoso Fm. section analysed.

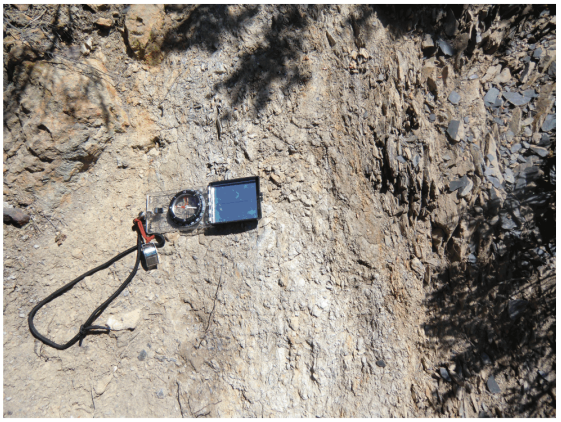

Photo 100-2277; Showing the basal high resolution log section, the boundaries and analysis zones can be seen on **Photo 100-2275** to the left.

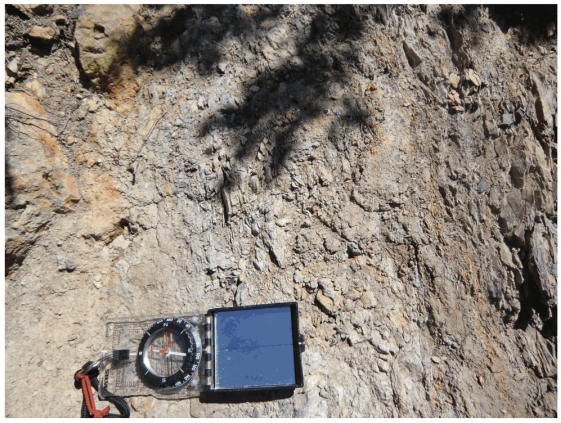

Photo 100-2278; Showing the basal high resolution log section, the boundaries and analysis zones can be seen on **Photo 100-2275**.

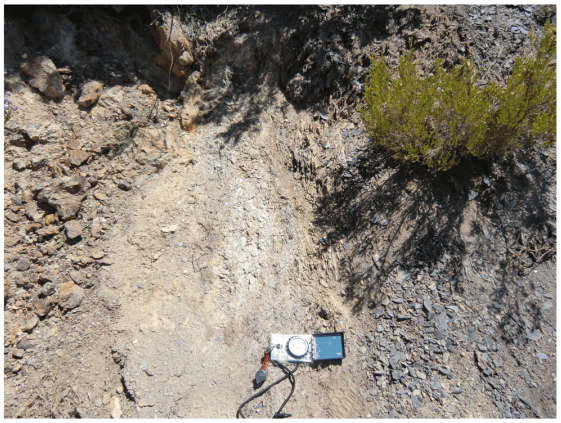

Photo 100-2279; Showing the basal high resolution log section, the boundaries and analysis zones can be seen on **Photo 100-2275**.

2. Caldas de Luna photo-plates

Figures (field images) associated with the Caldas de la Luna section

Photo 100-0569; Overview photo of the locality orientated towards the west (opposite side of the valley). Below the Barrios (Luna) ridge towards the left of the image are the supposed glacial deposits.

Photo 100-0570; Bioturbation within the sandstone intercalations of the supposed glaciomarine deposits. Fifty pence piece for scale.

Photo 100-0571; Overview shot of the glaciomarine deposits hammer for scale (~30cm). Orientated towards the west.

Photo 100-0595; Overview shot of the glaciomarine deposits hammer for scale (~30cm). Orientated towards the west.

Photo 100-0596; Contact between the supposed glaciomarine deposits and the Luna quartzite - The Formigoso Fm is found above this Luna quartzite. Hammer on boundary (Hammer ~ 30cm).

Photo 100-0597; Contact between the Barrios (Luna quartzite) seen on the left of the image and the basal Formigoso Fm. There are no Getino Beds exposed at this locality.

3. La Majua photo-plates

Figures (field images) associated with the La Majua section	Page 1 of 3

Photo 100-0573; Showing the contact (orientated towards the west) the Barrios Fm. is seen towards the front right of the photo, the Getino beds lie directly on top of the Barrios Fm,

Photo 100-0575; Fabric of the Getino beds. Hammer for scale (head ~ 30cm).

Photo 100-0576; Covering the basal section of the Getino beds - shaly sands. Hammer for scale (head ~ 30cm).

Photo 100-0577; The sharp contact, mainly showing the upper Barrios Fm. Contact on the upper left of the image. Hammer for scale (head ~ 30cm).

Photo 100-0578; Basal section of the Getino Beds. ~ 50cm as seen on tape.

Photo 100-0579; Finely bedded sandstone, ~ 30cm as seen on tape.

Figures (field images) associated with the La Majua section

Photo 100-0580; Finely bedded sandstones, Fining upwards into shaly fabric, pyrite crystals found. ~ 30cm as shown on tape

Photo 100-0581; Thicker sandstone units, Hematised bed found here (as with the hematised upper section of the Getino beds at Aralla).

Photo 100-0582; Ripples and bioturbation found, ~30cm as shown on the tape.

Photo 100-0583; finely laminated sandstone units - fining upwards into shaly fabric. ~30cm as shown on tape. Last section of the basal Getino beds - Moving to more prominent upper sands of the Getino.

Photo 100-0584; Thick sandstone unit - expressing bioturbation and symmetrical ripples.

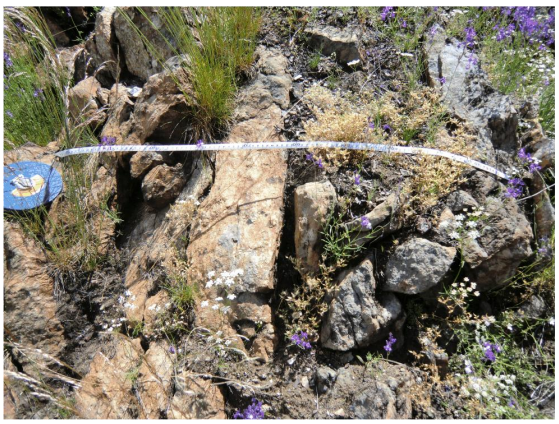

Photo 100-0585; Thickly bedded sandstone units, ~1m across shown on the tape.

Figures (field images) associated with the La Majua section

Photo 100-0586; Thickly bedded sandstone units, ~40cm as shown on the tape. Approaching the upper parts of the Getino Beds.

Photo 100-0587; Sharp contact between the underlying Getino Beds (on the right of the image) and the basal Bernesga Member of the Formigoso Fm. Hammer for scale (head ~30cm).

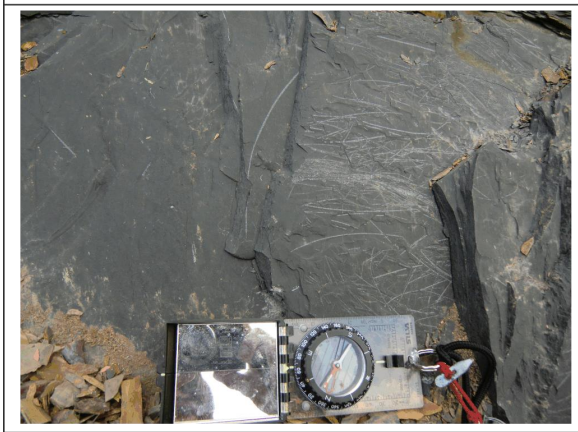

Photo 100-0588; Abundance of monograptid graptolites found within the quarried section at La Majua (upper log section). The graptolites are in situ - palaeoflow readings were taken.

Photo 100-0589; Showing the side profile of the quarried section, can just about make out the nodular weathering of the basal shales towards the centre right of the image. ~5m across.

4. Sena de Luna photo-plates

Figures (field images) associated with the Sena de la Luna section

Photo 100-0622; Truncating beds of the upper Barrios Fm, Cross lamination is apparent. The image is orientated towards the west. The sharp end to the Barrios Formation is seen towards the centre top.

Photo 100-0623; Image expressing the Getino Beds, every bed was sampled. The image is orientated towards the west. A sharp contact is seen with the overlying basal Formigoso Fm. yet very poor exposure.

5. Villanueva photo-plates

Figures (field images) associated with the Villanueva section

Villanueva de la Tercia: [a] Overview of the locality orientated towards the north-east. The pylons can be used to estimate the scale of the location. All formations have been labelled. The formations are overturned, youngest of these, the San Pedro Fm, lying underneath the older strata. The yellow line represents the sampling location - the Formigoso Fm sampled to 25cm intervals.