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Publications in this series have not been edited; they are released as submitted by the author.

INTRODUCTION

This publication reports on the geochemistry of the Canadian portion of the High Arctic Large Igneous Province (HALIP) exposed on Axel Heiberg Island and Ellesmere Island. The study was carried out in Year 1 of the HALIP Activity, Western Arctic Region Project, in the second phase of the Geo-mapping for Energy and Minerals (GEM) program[1] (Dewing, 2015; Williamson, 2016). The aim of this report is to release new whole rock and trace element data of volcanic rocks of the HALIP, and expand the existing regional coverage of geochemical databases (e.g., Ernst and Buchan, 2010).

The data presented here are for samples collected by the second author as part of her Ph.D. studies at Dalhousie University (Williamson, 1988). The samples are now archived at the Geological Survey of Canada (Saumur, 2015).

GEOLOGICAL BACKGROUND

The HALIP consists of Cretaceous volcanic and intrusive rocks (sills and dykes) exposed in Canada's Arctic Islands, northern Greenland, Svalbard, Franz Joseph Land and the New Siberian Islands (e.g., Senger et al., 2014; Saumur et al., 2016, and references therein). In the Canadian Arctic Islands, two dominant pulses of magmatism occurred at ~ 125 and ~ 90 Ma, with additional subordinate pulses between 130 and 80 Ma (e.g., Villeneuve and Williamson, 2006; Evenchick et al., 2015).

Volcanic rocks, which form part of the stratigraphy of the Sverdrup Basin succession, are limited to Axel Heiberg Island, northwestern Ellesmere Island and minor exposures in northern Amund Ringnes Island (Figure 1; Embry and Osadetz, 1988). Basaltic volcanic rocks occur within the Isachsen Formation (Valganian to Aptian) and the Strand Fiord Formation (Albian – Cenomanian). The Isachsen Formation is sandstone dominated and basalt only occurs within relatively restricted members of the Formation. The Paterson Island Member (Valanginian – Lower Barremian) is at most only 20 m thick (Tozer, 1963), whereas the much thicker Walker Island Member has a maximum thickness of 220 m (Embry and Osadetz, 1988). The Strand Fiord Formation consists of flood basalts associated with minor volcaniclastic rocks, and are the thickest known lavas in the HALIP (estimated maximum thickness 700-1000 m; Embry and Osadetz, 1988; Ricketts et al., 1985; Williamson and MacRae, 2015; Williamson et al., 2016). These magmas are broadly contemporaneous with ferrobasaltic lavas and intrusive rocks exposed northeast of Tanquary Fiord, on northern Ellesmere Island (Jowitt et al., 2014). A final stage of magmatism, between the Campanian and Maastrichtian, resulted in the emplacement of bimodal basaltic to rhyolitic lavas and associated intrusions between the Cenomanian and Maastrichitian (Hansen Point Volcanics, northern Ellesmere Island; e.g., Estrada, 2014).

[1] https://www.nrcan.gc.ca/earth-sciences/resources/federal-programs/geomapping-energy-minerals/18215

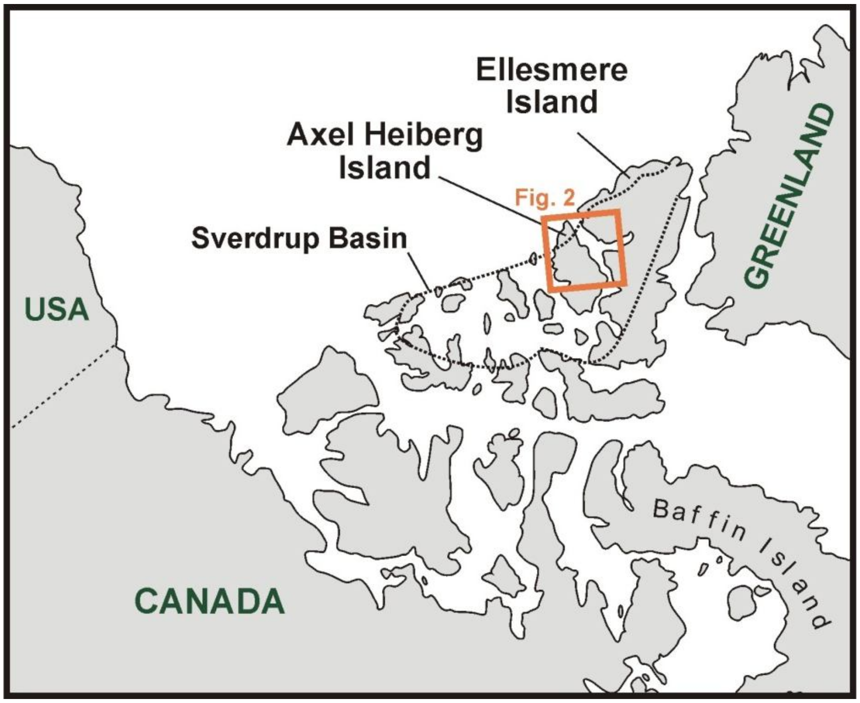

Figure 1: Location of the study area on Axel Heiberg Island, Nunavut.

SAMPLES

This report presents analyses from the Isachsen Formation (n = 13) and Strand Fiord Formation (n = 53); details on sample locations are presented in Figure 2 and Table 1. The Hansen Point Volcanics were not part of this legacy collection, and will not be discussed.

All samples are fine-grained to aphanitic basalts with holocrystalline to hypocrystalline groundmasses. Phenocrysts consist of plagioclase or clinopyroxene, with relatively minor iddingsitized olivine. Oxides form at most 1-2 modal% of the samples, and consist mostly of ilmenite with variable amounts of secondary titano-magnetite. Basalts show variable amounts of alteration (hematite, chlorite). Some samples are amygdaloidal, and particular effort was made during sample preparation to cut amygdules out of otherwise massive lava to obtain primary basaltic compositions. Details on the petrography of these rocks will be provided in a future report.

Strand Fiord Formation

Basalts of the Strand Fiord Formation are considered prospective for magmatic Ni-Cu-PGE mineralization based on similarities in geochemistry and geodynamic setting to that observed at the world class Ni-Cu-PGE camp of Norils'k, Russia (e.g., Williamson and MacRae, 2015; Jowitt et al., 2014). The Strand Fiord Formation is chiefly exposed in two areas: (1) at the type locality in the vicinity of Strand Fiord and Expedition Fiord, in west central Axel Heiberg Island, and (2) near Bunde Fiord in the northwestern portion of the island. Samples from both localities were available for analysis (Figure 1); however, exposures in the Strand-Expedition Fiord area are much greater in spatial extent and volume than those in the northwest, and accordingly represent the bulk of analysed samples reported here.

A total of 53 analyses of basalts of the Strand Fiord Formation are presented in this report. The stations shown in Figure 2 represent the positions of sections measured and sampled by Williamson (1988). Representative samples were taken for each individual flow within the section and for distinct intraflow lithologies, where appropriate. A complete suite of samples were analysed for the sections measured at five localities: Twisted Ridge, Index Ridge, Amarok River, Glacier Fiord Syncline E and Castle Mountain. A subgroup of samples from the Bastion Ridge and Celluloid Creek sections was also analysed, as well as one sample from Expedition Ridge, Camp Ridge and Split Mountain, respectively (Figure 2; Table 1).

Isachsen Formation

Basalts of the Isachsen Formation are exposed at various localities in the northern half of Axel Heiberg Island and in the Blue Mountains area north of Greely Fiord, Western Ellesmere Island (Figure 2). Sample analyses reported here include a complete section of four flows exposed at Blue Mountains (Blackwelder Ridge, Ellesmere Island) and a partial section exposed at "Scree Ridge" (Bunde Fiord), both of which are part of the Walker Island Member. Selected samples were also analysed from Bjarnason Island; these likely form part of the Paterson Island Member, reported to occur on the island (Embry and Osadetz, 1988).

The mafic unit sampled at Mokka Fiord was initially identified as a flow, and a mafic unit in the area was used for paleomagnetic interpretations (Wynne et al., 1988). However, the area was revisited in 2015, and these recent investigations suggest that these units may instead represent discordant intrusion (C. Evenchick, pers. comm., 2015). The analysis is nonetheless included in this report.

The Isachsen Formation is the focus of a doctoral Ph.D. thesis currently in progress at Carleton University (Kingsbury et al., 2014; 2015a; 2015b). The reader is referred to this work for an in depth analysis of the geochemistry and genesis of these basalts.

METHODS

Original samples were cut and prepared for geochemistry at NRCan's facilities in Tunney's pasture. Sample crushing, pulverization, alkaline fusion and analyses were performed at the laboratory facilities of the INRS Eau Terre Environnement (Québec City). Whole rock geochemistry was obtained by inductively coupled plasma atomic emission spectroscopy (ICP-AES). Trace element data were obtained via inductively coupled plasma mass spectroscopy (ICP-MS). The reader is referred to Varfalvy et al. (1997) and Leclerc et al. (2011) for detailed methods. The data are presented in Appendix A.

Reference materials used by INRS-ETE included WPR-1a (Peridotite with Rare Earth and Platinum Group Elements and SY-4 (Diorite Gneiss), and two in-house standards. Two additional standards were analysed: TDB-1 (Diabase) and WGB-1 (Gabbro). Values for these standards are available at http://www.nrcan.gc.ca/mining-materials/certified-reference-materials/8001. Values obtained from analyses are compared to certified values in Appendix B.

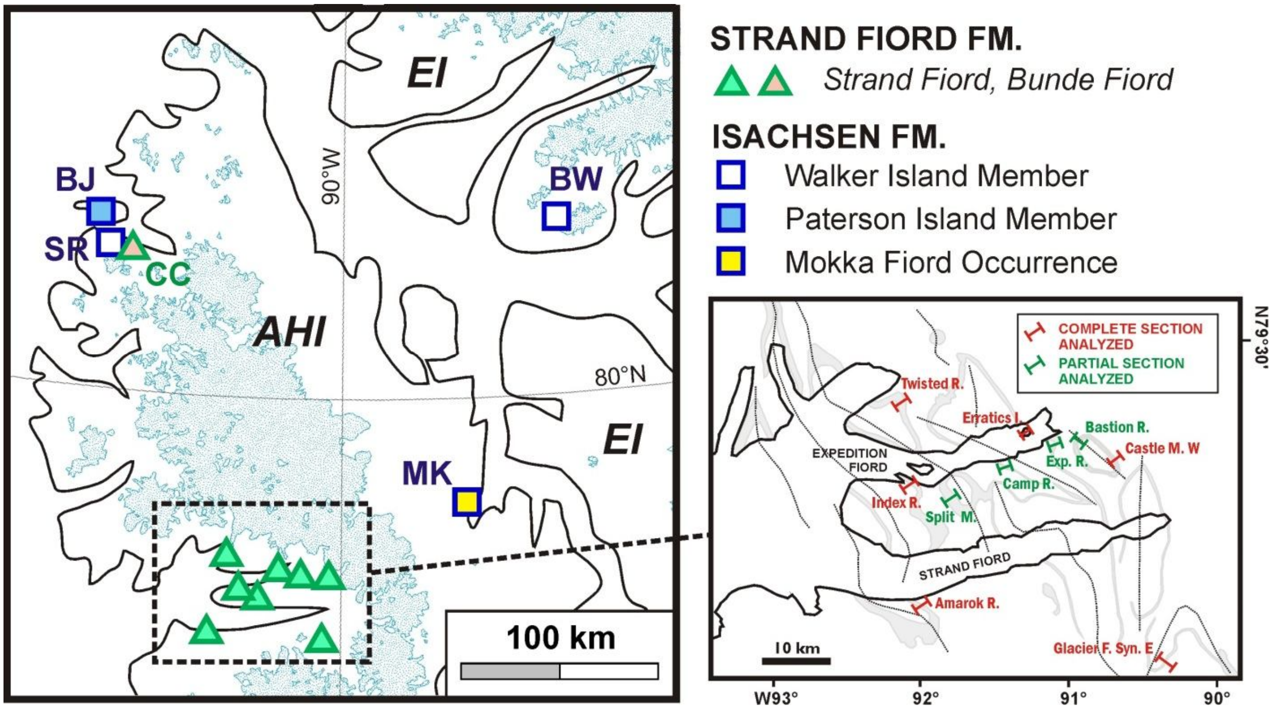

Figure 2: Sites of Sampling: **BJ**, Bjarnason Island**; SR**, Scree Ridge; **CC**, Camp Five Creek; **BW**, Blackwelder Ridge; **MK**, Mokka Fiord. Triangles represent the Strand Fiord Formation, squares represent the Isachsen Formation. The inset map shows the positions of sections of Strand Fiord Formation measured in the Kanguk Peninsula area. See Table 1 for further information on each sampling locality.

RESULTS AND DISCUSSION

The new analyses presented here confirm that the Strand Fiord Formation is basaltic (Figure 3). A few altered samples plot in the trachybasalt field. Sample AX83-040 shows a composition high in incompatible trace elements. We suspect this is secondary in origin as this sample was highly amygdaloidal, and does not represent a magmatic composition. Basalts of the Isachsen Formation reported here plot in the basaltic field in the TAS diagram (Figure 3). Overall, samples are tholeiitic (Figure 4), consistent with previously reported data for basalts of the Isachsen Formation and Strand Fiord Formation (Williamson, 1988; Jowitt et al., 2014). The extent of the tholeiitic character of the Isachsen volcanics onto Ellesmere Island (Blue Mountains) is noteworthy, since later (~ Strand Fiord age) magmas exposed on NW Ellesmere are mildly alkaline (Jowitt et al., 2014). Both suites of magmas plot as continental flood basalts (Figure 5), consistent with their well-established environment of formation within an intracontinental volcanic basin (Williamson, 2015).

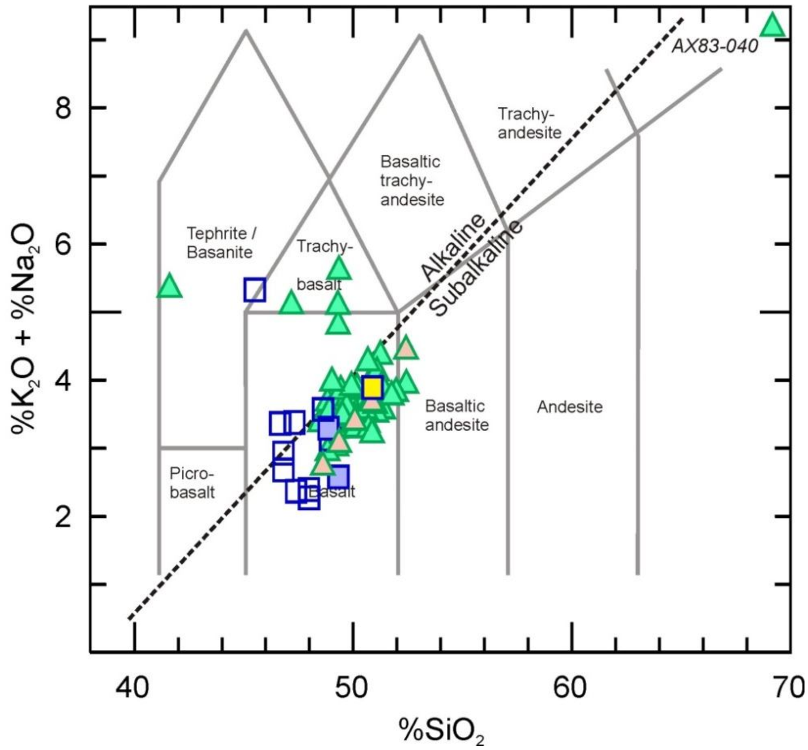

Figure 3: Total Alkalis Silica (TAS) diagram (after Le Maître et al., 1989). Symbols are keyed to Figure 2.

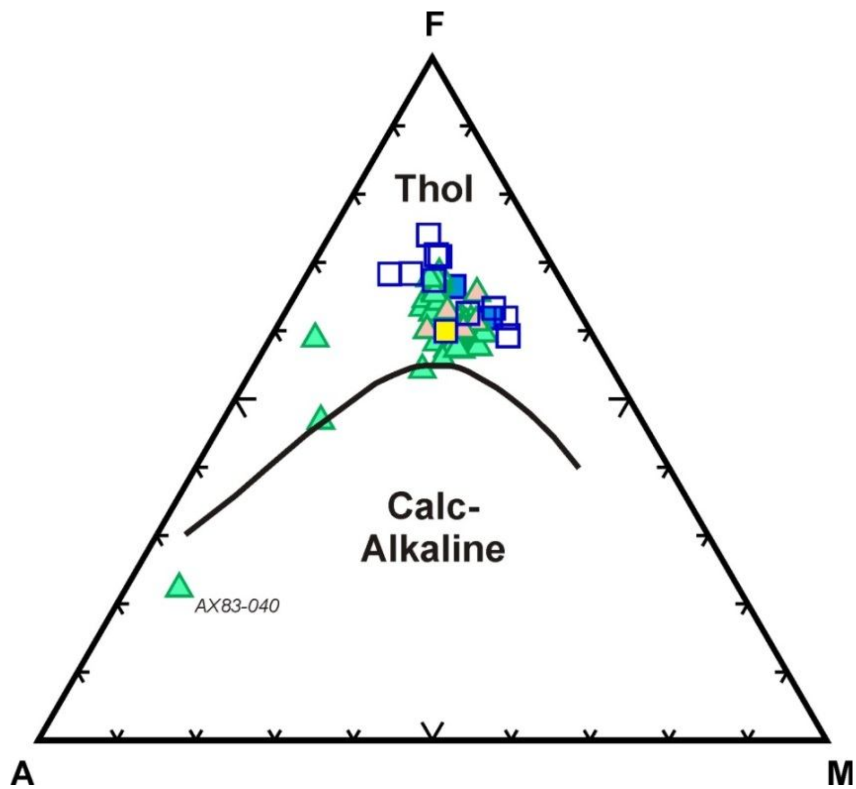

Figure 4. AFM diagram (after Irvine and Baragar, 1971). Symbols are keyed to Figure 2.

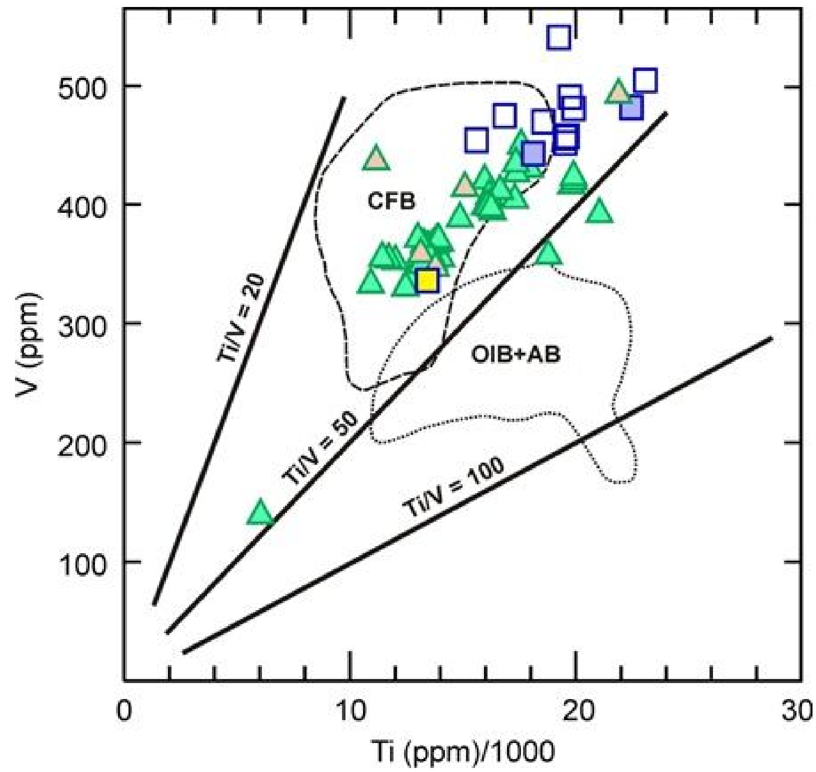

Figure 5. V (ppm) vs. Ti (ppm), after Shervais (1982). **CFB**, Continental Flood Basalt; **OIB + AB**, Ocean Island basalt and Alkali Basalt. Symbols are keyed to Figure 2.

In terms of Ni-Cu-PGE prospectivity, basalts of the Strand Fiord Formation tend to lie close to under the Ni-depletion trend defined by basaltic defined by units of the Norils'k-Talnakh Ni-Cu-PGE mining camp (Figure 6). It is noteworthy that one sample from Bunde Fiord, BND83-007, is relatively high in Ni and is chemically similar to chalcophile undepleted magmas of Norils'k in terms of Ni and SiO2 (Tk-basalts, Figure 6). Basaltic rocks from the Isachsen Formation plot to the left of the Ni-depletion trend, indicating that parental magmas were likely low in Ni and chalcophile elements. These geochemical signatures are also found in the mildly alkaline magmas of Tanquary Fiord and Lake Hazen, northern Ellesmere Island (Williamson, 2015). Jowitt et al. (2014) proposed that tholeiitic magmas of the HALIP were relatively prospective for Ni-Cu-PGEs whereas midly alkaline (ferrobasaltic) magmas were relatively unprospective. However, the data presented here indicate that portions of the Isachsen formation, despite their tholeiitic nature, are also relatively unprospective for Ni-Cu-PGEs. Future work will include PGE geochemistry, which will allow a more thorough assessment of the metal potential of the HALIP.

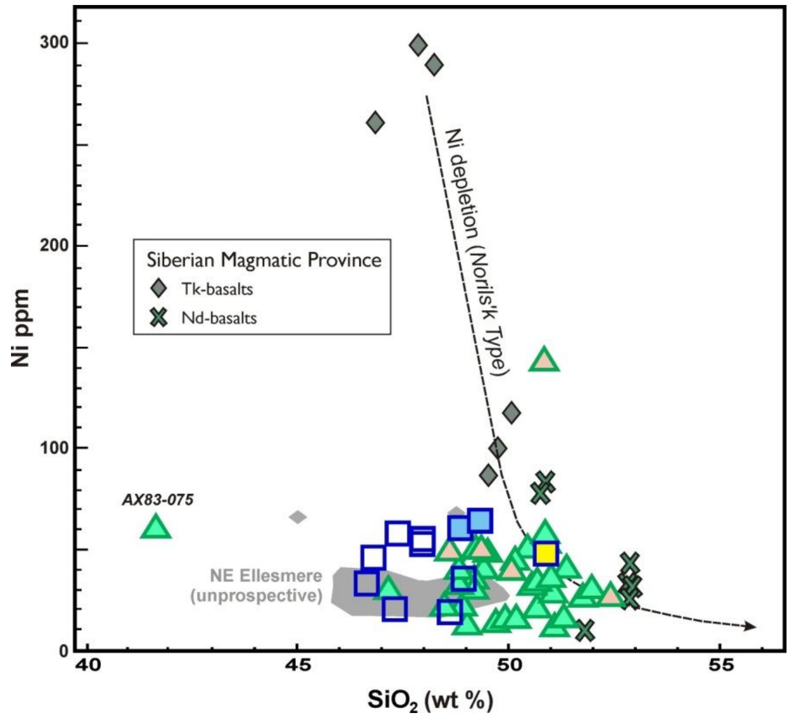

Figure 6. Prospectivity based on whole rock vs. SiO2 (volatile free) (after Williamson and MacRae, 2015). Values for sample AX83-040 are not shown. Data from Norils`k-Talnakh are from Lightfoot et al. (1993) and Fedorenko et al. (1996). The NE Ellesmere field is after Williamson (2015). Symbols are keyed to Figure 2.

Geochemical signatures of basaltic rocks in the Isachsen Formation and Strand Fiord Formation have been successfully compared to HALIP intrusive rocks to infer with which magma pulse such intrusive units are associated (Kingsbury et al., 2015a). Cases in point are the discordant mafic units at Mokka Fiord; the sample analysed here is more compositionally similar to basaltic rocks of the Strand Fiord Formation than to those of the Isachsen Formation (Figures 3-6). The data suggest that the Mokka Fiord unit could be related to the Strand Fiord event. However, further detailed work is required to ascertain its origin and clarify contact relationships with the Isachsen Formation.

In conclusion, volcanic rocks of the HALIP show spatial and temporal variations in chemistry and Ni-Cu-PGE prospectivity. A detailed interpretation of the observed compositional variations will be reported in a forthcoming publication that will further expand the spatial distribution of geochemical analyses to include volcanic and intrusive rocks of the HALIP throughout Canada's High Arctic. These samples will be obtained from GSC legacy collections and sites of 2015 and 2016 fieldwork.

ACKNOWLEDGEMENTS

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APPENDIX A: Data

APPENDIX B: Standard Compositions

TABLE 1: Details on sample localities. PI: Paterson Island Member; WI: Walker Island Member.

ISLAND	LOCALITY	SUB-LOCALITY	LAT	LONG	FORMATION	Number of Samples	Sample Range in SMS (WJA prefix)	NOTES
Axel Heiberg	**Kanguk Peninsula**	Twisted Ridge	79.417	-92.283	Strand Fiord	13	AX83-056 to -070	Complete section (10 Flows) analysed
		Glacier Fiord Syncline E	79.227	-90.302	Strand Fiord	9	AX83-033 to -043	Complete section analysed
		Index Ridge	79.309	-92.158	Strand Fiord	9	AX83-087 to -095	Complete section analysed
		Castle Mountain W	79.338	-90.679	Strand Fiord	6	AX83-075 to -080	Complete section (7 flows) analysed
		Amarok River	79.153	-92.526	Strand Fiord	6	AX83-081 to -086	Complete section (3 flows) analysed
		Erratics Island	79.363	-91.289	Strand Fiord	3	AX83-098 to -102	Complete section analysed
		Bastion Ridge	79.350	-90.783	Strand Fiord	4	AX83-011 to -031	Selected samples of section (11 Flows)
		Expedition Ridge	79.335	-91.017	Strand Fiord	1	AX83-001	Selected sample, for regional distribution
		Camp Ridge	79.325	-91.476	Strand Fiord	1	AX83-009	Selected sample, for regional distribution
		Split Mountain	79.279	-91.847	Strand Fiord	1	AX83-116	Selected sample, for regional distribution
	Bunde Fiord	Celluloid Creek	80.539	-94.810	Strand Fiord	5	BND83-005 to -017	Selected samples of section
		Scree Ridge	80.581	-95.235	Isachsen (PI)	6	AX85-098 to -104	Partial section
		Bjarnason Island	80.655	-95.515	Isachsen (WI)	2	BJN83-123 to -125	Selected samples of section
	Mokka Fiord	Mokka Fiord	79.633	-87.167	Isachsen (?)	1	EL84-274	Westernmost Unit
Ellesmere	**Blue Mountains**	Blackwelder Ridge	80.633	-85.333	Isachsen (WI)	4	EL84-254 to -257	Complete section (4 flows) analysed

APPENDIX A - Whole Rock & Trace Element Data

Results from ICP-AES (INRS-ETE)

SAMPLE ID	Section Locality	Notes	Area	Strat.	Total	LOI	Al_2O_3	CaO	Fe_2O_3	K_2O	MgO	MnO	Na_2O	P_2O_5 *	SiO_2	S*	TiO_2	Cd	Co	Cr	Cu	Ni	Sc	V	Zn
					wt%	*wt%*	*wt%*	*wt%*	*wt%*	*wt%*	*wt%*	*wt%*	*wt%*	*wt%*	*wt%*	*wt%*	*wt%*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*
AX83-001	Expedition Ridge		Kanguk P.	SFF	102	2.8	13.7	9.6	16.2	0.32	4	0.25	3	0.34	47.9	0.007	3.26	1.8	46	43	22	21	32.5	411	159
AX83-009	Camp Ridge		Kanguk P.	SFF	99	1.1	13.8	9.9	13.8	0.46	5.12	0.188	2.81	0.23	49.1	0.089	2.17	< 0.7	42	94	85	43	33	347	118
AX83-013	Bastion Ridge	Flow #10	Kanguk P.	SFF	101	1.8	13.8	10.2	14.1	0.62	4.89	0.205	2.72	0.25	50.5	0.023	2.12	< 1.3	39	43	58	30	31.2	333	122
AX83-018	Bastion Ridge	Flow #7	Kanguk P.	SFF	101	1.2	14.4	7.99	15.2	1.18	5.03	0.481	3.6	0.27	49.2	0.007	2.18	< 1.1	43	41	63	40	32.4	337	125
AX83-024	Bastion Ridge	Flow #4	Kanguk P.	SFF	101	0.7	14	10.3	14	0.62	5.16	0.199	2.72	0.24	50.5	0.08	2.15	1.2	41	89	98	50	34	336	130
AX83-031	Bastion Ridge	1st cycle, top	Kanguk P.	SFF	101	1.2	14.1	9.3	12.9	1.11	4.71	0.195	2.81	0.22	52.4	0.038	2	1.2	43	18	99	24	38.1	352	110
AX83-033	E Glacier F Syn.	basal flow	Kanguk P.	SFF	102	1.4	14	10.00	14.7	0.36	5.17	0.201	2.94	0.23	50	0.071	2.25	< 0.8	44	25	70	32	31.9	364	123
AX83-036	E Glacier F Syn.		Kanguk P.	SFF	102	5.3	17.6	4.37	13.5	0.55	4.84	0.221	4.86	0.27	47.7	0.005	2.57	< 0.8	47	73	78	39	38.8	406	172
AX83-037	E Glacier F Syn.		Kanguk P.	SFF	102	2.4	14.7	10.20	14.5	0.57	5.23	0.204	3.09	0.24	48.8	0.014	2.25	< 0.7	42	61	70	32	33.1	351	124
AX83-038	E Glacier F Syn.		Kanguk P.	SFF	100	11.3	15.8	16.30	5.74	0.48	1.38	0.125	4.02	0.34	41.7	0.04	2.38	< 0.8	49	60	80	26	34.4	360	110
AX83-039	E Glacier F Syn.		Kanguk P.	SFF	101	1.1	14	10.00	14.3	0.47	4.99	0.189	2.9	0.24	50	0.066	2.19	< 0.7	42	59	70	29	31.7	343	127
AX83-040	E Glacier F Syn.		Kanguk P.	SFF	100	5.2	15.2	0.238	3.01	7.9	0.832	0.0159	0.772	0.059	65.4	0.006	0.95	< 0.7	13	200	26	33	15	131	68
AX83-041	E Glacier F Syn.	2nd flow	Kanguk P.	SFF	100	1.0	14	10	14.0	0.44	5.03	0.193	2.96	0.24	50.2	0.055	2.19	< 0.6	41	58	63	28	31.3	337	119
AX83-042	E Glacier F Syn.		Kanguk P.	SFF	101	0.8	14.1	9.9	14.3	0.59	5.05	0.19	2.97	0.24	50.3	0.067	2.19	1	43	57	66	30	31.5	336	121
AX83-043	E Glacier F Syn.	top flow	Kanguk P.	SFF	102	0.9	14.3	10.1	14.1	0.88	4.60	0.174	2.88	0.25	51	0.057	2.23	< 0.9	44	53	67	29	32.3	348	122
AX83-056A	Twisted Ridge	Flow #1	Kanguk P.	SFF	102	2.2	13.8	9.5	14.1	1	4.92	0.198	2.53	0.22	51.1	0.059	1.94	< 1.3	46	38	114	40	38.5	352	115
AX83-057	Twisted Ridge	Flow #2	Kanguk P.	SFF	101	0.7	14	9.2	13.6	1.01	5.01	0.201	2.8	0.2	52	0.055	1.82	< 1.2	44	21	94	30	37	333	105
AX83-058	Twisted Ridge	Flow #3	Kanguk P.	SFF	99	1.6	13	8.32	14.7	1.07	3.95	0.192	2.87	0.4	49.6	0.082	3.05	< 0.9	36	55	138	51	30.8	348	135
AX83-059	Twisted Ridge	Flow #4	Kanguk P.	SFF	103	0.7	13.2	9.2	16.7	0.96	4.34	0.229	2.96	0.36	50.9	0.071	2.94	1.5	43	40	134	30	35.4	412	174
AX83-060	Twisted Ridge	Flow #5	Kanguk P.	SFF	101	1.4	13.8	8.86	14.7	0.68	4.49	0.212	3.11	0.27	51.4	0.046	2.34	< 1.2	40	55	52	40	31.7	355	122
AX83-062	Twisted Ridge	Flow #6 (lower cu)	Kanguk P.	SFF	101	1.7	13.6	9	15.2	0.64	4.46	0.219	2.99	0.28	50.6	0.09	2.47	< 1.3	44	43	68	30	31.6	387	130
AX83-063	Twisted Ridge	Flow #6 (upper cu)	Kanguk P.	SFF	99	0.9	12.6	8.33	17.2	0.49	4.01	0.231	3.06	0.31	48.2	0.126	3.25	1.7	40	42	17.3	29	30.1	411	152
AX83-064	Twisted Ridge	Flow #7	Kanguk P.	SFF	99	1.1	12.8	8.46	17.6	0.49	3.88	0.23	2.98	0.31	48.1	0.103	3.26	< 0.8	39	43	18	21	30.4	416	155
AX83-065	Twisted Ridge	Flow #8	Kanguk P.	SFF	99	0.7	12.9	8.35	17	0.52	3.97	0.216	3.17	0.3	49.1	0.115	2.89	< 0.8	43	28	41	23	30.9	444	147
AX83-066B	Twisted Ridge	Flow #9	Kanguk P.	SFF	99	1.8	14.4	9.7	13.4	0.81	5.28	0.147	2.93	0.21	48.2	0.005	2.2	< 0.7	42	77	86	39	34.1	350	79
AX83-067	Twisted Ridge	Flow #9	Kanguk P.	SFF	100	2.3	14.3	10.1	13.8	0.77	5.17	0.165	2.59	0.22	48.4	< 0.005	2.19	< 0.7	44	74	51	39	33.7	356	118
AX83-068	Twisted Ridge	Flow #9	Kanguk P.	SFF	99	2.2	13.7	9.6	14.2	0.5	4.73	0.195	2.68	0.24	48.9	0.069	2.23	< 0.7	41	31	63	30	32.1	356	122
AX83-070	Twisted Ridge	Flow #10	Kanguk P.	SFF	98	2.1	13.5	9.5	14.2	0.72	4.75	0.191	2.6	0.23	48.2	0.017	2.22	0.9	41	31	69	27	32.2	356	121
AX83-075	W Castle Mtn	Flow 1/chilled	Kanguk P.	SFF	102	16.0	15.5	17.6	8.45	0.26	0.744	0.208	4.32	0.33	35.7	0.108	2.38	< 1.2	46	86	99	50	36.2	353	92
AX83-076	W Castle Mtn	Flow 2	Kanguk P.	SFF	101	1.2	14.1	10.1	14.1	0.46	5.18	0.191	2.85	0.23	50.3	0.09	2.22	< 0.9	42	114	92	33	34.1	349	117
AX83-077	W Castle Mtn	Flow 4	Kanguk P.	SFF	102	1.4	14.5	10	14.4	0.48	5.16	0.214	2.98	0.23	50.3	0.079	2.25	< 0.8	45	58	74	30	34.2	358	121
AX83-078	W Castle Mtn	Flow 5	Kanguk P.	SFF	101	2.9	14.7	10	13.3	0.3	5.63	0.318	2.89	0.22	48.1	0.013	2.16	< 0.8	43	60	71	34	34.6	358	124
AX83-079	W Castle Mtn	Flow 6	Kanguk P.	SFF	100	2.8	14.6	6.45	14.7	0.51	5.58	0.249	4.43	0.21	47.9	0.02	2.21	0.9	44	59	74	36	34	355	121
AX83-080	W Castle Mtn	Flow 7	Kanguk P.	SFF	100	1.7	13.9	10.2	13.6	0.59	4.59	0.168	2.89	0.24	49.9	0.081	2.17	< 0.9	44	52	59	33	31.3	345	120
AX83-081	Amarok River	Flow 1, Upper cu	Kanguk P.	SFF	99	1.6	13.9	9.4	13.9	0.54	4.2	0.185	2.87	0.24	49.7	0.063	2.27	< 0.8	44	33	65	27	33	358	125
AX83-082	Amarok River	Flow 1, 2nd cu	Kanguk P.	SFF	100	1.6	13.8	9.5	14.2	0.46	4.64	0.22	3.03	0.24	49.7	0.108	2.28	< 0.8	42	34	64	31	32.9	364	122
AX83-083	Amarok River	Flow 1, 3rd cu	Kanguk P.	SFF	103	2.7	14.8	10.8	14.4	0.38	5.1	0.257	2.65	0.25	49.6	0.081	2.3	1.3	46	86	91	50	36.3	355	122
AX83-084	Amarok River	Flow 1, Bottom	Kanguk P.	SFF	99	1.5	13.9	10	13.8	0.44	5.01	0.186	2.77	0.23	49	0.061	2.2	< 0.8	40	109	86	39	34.7	349	117
AX83-085	Amarok River	Flow 2	Kanguk P.	SFF	101	2.2	13.1	8.44	17	0.58	3.79	0.258	2.96	0.32	49	0.066	2.95	< 0.8	76	28	33	13	30.7	424	151
AX83-086	Amarok River	Flow 3	Kanguk P.	SFF	100	1.2	13	8.25	16.6	0.67	3.97	0.215	3.15	0.3	49.6	0.072	2.86	< 0.7	41	36	32	15	31	421	142

SFF: Strand Fiord Formation; IF: Isachsen Formation; PIM : Paterson Island Member; WIM: Walker Island Member
** Potential loss during fusion*

APPENDIX A - Whole Rock & Trace Element Data (ctd.)

Results from ICP-AES (INRS-ETE), continued

SAMPLE ID	Section Locality	Notes	Area	Strat.	Total	LOI	Al_2O_3	CaO	Fe_2O_3	K_2O	MgO	MnO	Na_2O	P_2O_5 *	SiO_2	S*	TiO_2	Cd	Co	Cr	Cu	Ni	Sc	V	Zn
					wt%	*wt%*	*wt%*	*wt%*	*wt%*	*wt%*	*wt%*	*wt%*	*wt%*	*wt%*	*wt%*	*wt%*	*wt%*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*
AX83-087	Index Ridge	Unit 1	Kanguk P.	SFF	102	2.3	13	8.37	15.5	1.28	3.77	0.222	3.04	0.315	50.9	0.034	2.68	2.6	50	12.5	34	14	28.6	397	146
AX83-088	Index Ridge	Unit 2	Kanguk P.	SFF	102	2.3	12.8	8.46	16.1	0.786	3.93	0.229	3.17	0.31	51	0.032	2.71	1.9	86	13.4	30	14	28.7	393	143
AX83-089	Index Ridge	Unit 3	Kanguk P.	SFF	100	1.4	12.8	8.43	16	0.853	3.76	0.227	3.21	0.31	50.5	0.043	2.63	1.9	84	13.7	30	11	28.4	394	141
AX83-090	Index Ridge	Unit 4	Kanguk P.	SFF	98	1.4	12.5	8.4	15.5	0.584	3.66	0.223	3.18	0.31	49.6	0.041	2.59	2.1	80	16.4	34	15	28.2	385	143
AX83-091	Index Ridge	Unit 4	Kanguk P.	SFF	100	1.6	12.5	8.36	16.2	1.25	3.81	0.227	2.93	0.32	49.8	0.029	2.66	1.6	74	18	31	20	27.8	390	140
AX83-092	Index Ridge	Unit 5	Kanguk P.	SFF	97	1.5	13.4	10.4	13.5	0.763	5.14	0.169	2.56	0.24	47.5	< 0.004	2.02	1	42	68	88	46	31.9	323	115
AX83-093	Index Ridge	Unit 6	Kanguk P.	SFF	98	2.4	13.3	9.7	13	0.609	4.65	0.204	2.87	0.25	48.9	0.039	2.1	1.1	56	17.6	70	34	30.3	335	123
AX83-094	Index Ridge		Kanguk P.	SFF	97	2.2	13	10.1	13.1	0.42	5.05	0.194	2.69	0.24	48.2	0.023	1.97	1.5	68	63	83	50	31.1	314	112
AX83-095	Index Ridge		Kanguk P.	SFF	98	1.6	13.3	10.3	13	0.42	4.96	0.188	2.66	0.24	49	0.026	2	< 1	60	61	94	55	31.3	318	122
AX83-098	Erratics Island	mid-portion flow	Kanguk P.	SFF	100	1.1	13.2	8.4	16.5	0.67	4.01	0.212	3.18	0.3	49.4	0.076	2.86	1.1	44	29	33	15.1	29.8	430	146
AX83-099	Erratics Island	bottom	Kanguk P.	SFF	100	0.7	12.7	8.15	17.9	1.04	3.78	0.235	2.9	0.4	48.8	0.045	3.49	1	38	9	17.8	12	30.4	390	161
AX83-102	Erratics Island		Kanguk P.	SFF	99	3.0	14.1	10.5	13.7	0.44	5.54	0.186	2.39	0.21	47.1	0.021	2.09	0.9	46	59	64	38	34.7	358	116
AX83-116	Split Mtn.	Flow 2	Kanguk P.	SFF	100	2.4	14	9	12.8	1	4.92	0.161	2.65	0.19	50.3	0.049	1.85	1.2	41	22	91	25	36.6	345	106
AX85-098	Scree Ridge	Unit 2	Bunde	IF (WIM)	102	4.7	14	10	15.3	0.152	5.69	0.174	2.15	0.27	46.1	0.051	3.2	< 0.8	45	180	242	56	43.1	477	121
AX85-099	Scree Ridge	Unit 2	Bunde	IF (WIM)	102	3.1	13.2	9.7	15.8	0.116	6.52	0.197	2.12	0.26	47.3	0.037	3.05	1.5	45	170	226	54	41.3	463	128
AX85-100	Scree Ridge	Unit 2	Bunde	IF (WIM)	104	4.7	14.4	9.8	14.5	0.162	6.6	0.184	2.21	0.28	47.6	0.053	3.29	1	46	177	251	52	43.8	477	121
AX85-101	Scree Ridge	Unit 3	Bunde	IF (WIM)	102	11.0	15.8	13.3	10.9	0.25	1.88	0.236	2.41	0.28	42.6	0.086	2.92	0.8	45	89	332	42	50.4	492	166
AX85-103	Scree Ridge	Unit 3	Bunde	IF (WIM)	101	9.1	14	11.9	15.1	0.49	2.3	0.265	1.98	0.25	43.2	0.06	2.59	1.1	45	66	299	42	44.2	438	153
AX85-104	Scree Ridge	Unit 3	Bunde	IF (WIM)	101	1.9	14.5	9.5	15.1	0.696	5.05	0.238	2.4	0.23	48.4	0.036	2.57	0.7	43	73	286	35	44.4	449	140
BJN83-123	Bjarnason Island	Unit A	Bunde	IF (PIM)	100	0.6	12.1	8.9	17.3	0.9	4.57	0.239	2.38	0.43	48.7	0.21	3.73	1.6	42	138	154	60	40.4	480	158
BJN83-125	Bjarnason Island	Unit C	Bunde	IF (PIM)	100	2.8	12.8	9.9	14.7	0.27	5.65	0.199	2.23	0.28	47.9	0.048	2.93	1.1	44	130	190	62	39.7	430	118
BND83-005	Celluloid Creek	Flow #8	Bunde	SFF	100	1.2	13.5	10.10	14.9	0.59	5.46	0.265	2.44	0.24	48.9	< 0.004	2.49	0.8	43	139	252	49	45.5	410	126
BND83-007	Celluloid Creek	Flow #6	Bunde	SFF	99	0.5	13	8.24	15.2	1.02	4.00	0.233	2.6	0.39	50.3	0.041	3.61	< 0.8	46	92	148	141	38.6	487	150
BND83-015	Celluloid Creek	Flow #3	Bunde	SFF	100	0.7	14.4	9.80	14.1	0.83	5.25	0.205	2.54	0.21	49.9	< 0.004	2.18	< 0.7	45	177	101	39	40.1	357	112
BND83-016	Celluloid Creek	Flow #2	Bunde	SFF	101	1.5	13.3	8.34	14.2	1.51	4.11	0.197	2.88	0.32	52	< 0.003	2.28	1.7	63	19	50	26	29	344	123
BND83-017	Celluloid Creek	Flow #1	Bunde	SFF	101	2.1	13.4	10.00	16.8	0.47	5.3	0.242	2.21	0.18	47.9	0.066	1.83	< 0.8	47	136	240	48	49	430	122
EL84-254	Blackwelder Ridge	Flow #1	Blue Mtns.	IF (WIM)	100	6.1	12.3	8.24	18.4	0.7	3.63	0.245	2.48	0.31	44.6	0.1	3.08	0.9	42	44	68	19	31.3	431	138
EL84-255	Blackwelder Ridge	Flow #2	Blue Mtns.	IF (WIM)	101	6.5	12.2	9.6	18	0.72	3.41	0.293	2.45	0.33	44	0.099	3.07	< 0.8	41	45	133	31	31.2	426	137
EL84-256A	Blackwelder Ridge	Flow #3	Blue Mtns.	IF (WIM)	101	4.3	12.8	9.8	16	0.81	3.54	0.247	2.63	0.31	46.9	0.075	3.14	< 0.8	40	44	67	18	32.8	440	139
EL84-257	Blackwelder Ridge	Flow #4	Blue Mtns.	IF (WIM)	99	9.3	13.6	6.78	17.0	2.16	2.34	0.226	2.6	0.39	40.7	0.086	3.44	< 0.9	24	47	91	14	34.6	451	211
EL84-274	Mokka Fiord	westernmost unit	Mokka	IF (MU)	102	1.6	13.9	9.6	14.4	1.04	4.7	0.19	2.92	0.26	51.2	0.048	2.25	2	74	58	100	49	34	341	119

SFF: Strand Fiord Formation; IF: Isachsen Formation; PIM : Paterson Island Member; WIM: Walker Island Member

** Potential loss during fusion*

APPENDIX A - Whole Rock & Trace Element Data (ctd.)

Results from ICP-MS (INRS-ETE)

SAMPLE ID	Co ppm	Ga ppm	As* ppm	Rb ppm	Sr ppm	Y ppm	Zr ppm	Nb ppm	Mo ppm	Ag ppm	In ppm	Sn ppm	Sb ppm	Te ppm	Cs* ppm	Ba ppm	La ppm	Ce ppm	Pr ppm
AX83-001	49.3	20.8	< 10	5.14	266	43.2	221	19.4	1.36	0.22	0.121	2.2	2.2	< 0.18	1.02	142	23	50.7	6.63
AX83-009	47.1	20.2	< 10	17.3	248	34.1	184	13.2	4.45	0.2	0.07	1.71	2	< 0.16	0.67	203	18.7	41.6	5.4
AX83-013	45.1	20.2	< 10	17.7	258	34.4	201	16.1	1.07	0.21	0.07	1.77	2.4	< 0.2	1.9	200	20.8	45.1	5.72
AX83-018	46.4	23.3	< 10	26.9	352	36.5	209	17.5	1.02	0.22	0.09	2.1	2	< 0.18	< 0.12	387	21.2	47.7	6.2
AX83-024	46.1	19.4	< 10	26.8	244	33.3	185	13	1.09	0.21	0.089	1.48	2	< 0.17	0.69	179	18.4	40.5	5.22
AX83-031	46.1	20	< 10	38.8	242	33.7	175	13.6	0.96	0.18	0.092	1.74	2	< 0.18	0.4	198	19.5	42.6	5.51
AX83-033	50.1	22.6	< 10	4.87	310	35.3	187	15.4	1.63	0.17	0.09	2	2.6	< 0.19	1.34	253	19.9	43.5	5.61
AX83-036	57.5	28.6	< 10	12.8	234	36.3	227	19	1.53	1.18	0.19	3.9	2.4	0.23	1.21	368	22.7	49.4	6.32
AX83-037	48.2	25	< 10	9	278	36.2	200	16.7	1.36	0.23	0.098	2.2	1.9	< 0.15	0.61	329	21.9	47.1	6.07
AX83-038	53.4	21.3	< 10	5.39	279	44.7	209	17.9	2.7	0.4	0.102	2.3	2.5	< 0.19	0.6	198	35.5	72.6	8.58
AX83-039	47.4	21.7	< 10	7.1	282	35.8	194	16.2	1.37	0.23	0.08	2.3	2.1	< 0.17	1.9	230	21.6	47.2	6.03
AX83-040	13.6	33.4	< 10	288	35.6	25.6	194	15.7	0.99	0.17	0.06	2.1	1.76	< 0.17	6.8	950	38.7	81	8.9
AX83-041	47.4	21.1	< 10	10.5	266	35.9	195	16.4	1.34	0.21	0.089	2.5	1.78	< 0.14	2.1	202	21.4	46.7	5.99
AX83-042	48.8	21.7	< 10	24.1	261	36.8	203	16.9	1.46	0.23	0.095	2.2	2.2	< 0.16	1.9	208	22.1	48.2	6.16
AX83-043	47.7	22.1	< 10	21.2	266	36.9	200	17	1.56	0.19	0.08	2.4	2.4	< 0.2	1.29	236	22	47.9	6.04
AX83-056A	48.5	18.6	< 10	35.2	200	34.3	158	10.8	1.22	0.13	0.08	1.76	2.4	< 0.2	0.4	165	16.7	36.9	4.89
AX83-057	47.9	19.5	< 10	35.3	238	31	160	12.4	1.01	0.25	0.094	1.55	2.2	< 0.18	0.67	191	17.9	38.9	5.04
AX83-058	41.3	23.6	< 10	58.8	237	47	298	23.7	2.2	0.4	0.09	2.4	2.4	< 0.2	1.9	301	32.8	71.8	9
AX83-059	51.9	23.7	< 10	27.4	272	44.2	225	20.9	2	0.3	0.104	2.2	2.4	< 0.18	0.8	246	27.2	59.8	7.8
AX83-060	49.1	22.9	< 10	45	280	38.8	211	18.3	1.68	0.26	0.103	2	2.4	< 0.18	1.61	238	25	53.7	6.71
AX83-062	48.4	21.9	< 10	29.3	267	39.2	229	17.7	1.72	0.3	0.09	2.2	2.5	< 0.2	0.93	211	23.4	51.2	6.49
AX83-063	46.8	21	< 10	25.8	239	42	230	18.8	1.28	0.26	0.096	2	2	< 0.17	1.31	170	22.2	49.2	6.37
AX83-064	47.2	21	< 10	23.5	247	42.8	229	19	1.9	0.3	0.109	2	2.3	< 0.19	1.16	170	22.5	49.9	6.59
AX83-065	47.6	22.1	< 10	28.2	251	41.3	229	18.2	1.47	0.21	0.1	2.1	2.3	< 0.19	1.26	217	23.5	51.5	6.68
AX83-066B	46.3	21.2	< 10	21.3	245	32.3	173	12.4	0.97	0.17	0.06	1.34	1.9	< 0.17	0.17	176	16.4	36.5	4.8
AX83-067	46.1	19.2	< 10	19.7	252	32.2	172	12.4	0.78	0.18	0.07	3	2	< 0.17	< 0.12	153	16.5	36.6	4.73
AX83-068	46.4	19.7	< 10	14.4	258	34.5	190	16.1	1.31	0.2	0.08	1.68	2	< 0.17	0.86	179	20.5	44.2	5.59
AX83-070	48	20.8	< 10	19.6	258	35.4	176	16.1	0.99	0.4	0.09	1.66	4.5	< 0.19	1.16	202	20.6	44.8	5.7
AX83-075	52.5	19.5	< 10	2.7	257	37.7	204	14.7	1.24	0.24	0.097	1.74	2.3	< 0.19	< 0.13	126	21.3	46.8	6.11
AX83-076	47.4	20.1	< 10	16.7	250	34	169	13.5	1.43	0.15	0.07	2.1	2.4	< 0.2	1.65	188	19.2	42.6	5.49
AX83-077	49.2	21.4	< 10	7.01	278	34.1	175	16.1	1.48	0.16	0.07	2.4	2.5	< 0.19	1.51	224	20	43.5	5.55
AX83-078	52.8	20.4	< 10	2.2	283	34.9	164	16	1.35	0.15	0.08	2	2.5	< 0.19	0.5	149	19.5	42.6	5.61
AX83-079	51.8	25.8	< 10	13.2	371	34.9	176	16.2	1.36	0.19	0.07	2.1	2	< 0.15	0.54	389	20	43.4	5.55
AX83-080	47.8	21.4	< 10	8.72	285	36.1	190	16.6	1.47	0.2	0.09	2.2	2.5	< 0.2	1.67	217	21.3	46.8	5.94
AX83-081	47.8	21.2	< 10	9.3	256	35.4	192	16.3	1.35	0.21	0.08	1.8	2.2	< 0.17	0.83	217	21.2	45.7	5.73
AX83-082	46.4	20.9	< 10	9.4	251	34.8	190	16.1	1.3	0.19	0.07	1.9	2.2	< 0.18	1.02	224	20.7	44.7	5.63
AX83-083	49.3	20.2	< 10	3.5	269	35.8	196	13.6	1.26	0.21	0.08	1.8	2.3	< 0.19	< 0.13	161	19.7	43.5	5.71
AX83-084	46.7	19	< 10	11.9	245	33.2	173	12.8	1.54	0.17	0.095	1.54	2.2	< 0.18	0.78	161	18.3	40.4	5.32
AX83-085	85.5	22.1	< 10	15.2	258	42	217	19.1	1.9	0.18	0.1	2	2.4	< 0.19	0.84	212	24.9	54	6.89
AX83-086	46.9	21.6	< 10	35.8	245	40.7	211	18.2	1.66	0.22	0.1	1.9	2	< 0.17	1.55	193	23.5	51.1	6.67

** Potential loss during fusion*

APPENDIX A - Whole Rock & Trace Element Data (ctd.)

Results from ICP-MS (INRS-ETE), continued

SAMPLE ID	Co ppm	Ga ppm	As* ppm	Rb ppm	Sr ppm	Y ppm	Zr ppm	Nb ppm	Mo ppm	Ag ppm	In ppm	Sn ppm	Sb ppm	Te ppm	Cs* ppm	Ba ppm	La ppm	Ce ppm	Pr ppm
AX83-087	55.4	23	< 10	42.3	253	43.6	233	19.1	1.46	0.4	0.102	2.2	1.76	< 0.14	1.4	229	26.4	58	7.41
AX83-088	94	22.6	< 10	43.1	256	43.4	237	19.5	2.1	0.4	0.124	2.5	2.2	< 0.17	1.9	216	26.1	57.3	7.27
AX83-089	96	22.7	< 10	36.3	254	43.3	235	19.3	2.4	0.4	0.117	2.4	2.1	< 0.16	1.69	224	25.9	56.5	7.22
AX83-090	89	22.4	< 10	26.1	256	42.9	235	19.4	2	0.3	0.103	2.2	2	< 0.16	2.1	211	25.2	55.8	7.06
AX83-091	85.2	22.7	< 10	39.9	250	43.1	240	19.4	1.9	0.4	0.117	2.5	2.1	< 0.17	0.96	225	25.9	56.8	7.29
AX83-092	50.9	20.2	< 10	10.9	260	35.1	194	13.5	0.91	0.26	0.08	1.64	2.5	< 0.2	0.18	189	19.5	43.6	5.51
AX83-093	64.4	22	< 10	8.06	276	36.6	202	17.1	1.67	0.25	0.08	1.9	2.4	< 0.19	0.72	236	22.4	48.1	6.11
AX83-094	81.1	20	< 10	16.5	254	34.6	191	13.9	1.65	0.27	0.09	1.76	2.5	< 0.2	1.6	181	19.6	43.4	5.52
AX83-095	75.8	20.4	< 10	9.9	264	35.2	190	13.8	1.63	0.23	0.09	1.67	2.5	< 0.2	1.12	197	19.7	43.2	5.55
AX83-098	48.9	22.2	< 10	35.6	257	41.6	215	18.4	1.6	0.26	0.111	2.4	1.78	< 0.14	2.1	203	23.9	52.8	6.72
AX83-099	47.5	22.9	< 10	34.6	252	46.2	234	20.4	1.73	0.26	0.105	2.6	2	< 0.16	1.63	210	24.5	54.2	7.13
AX83-102	48.6	19.4	< 10	5.25	260	33	171	15	1.66	0.15	0.08	2.1	2.1	< 0.18	0.65	158	18.5	41.1	5.26
AX83-116	49.7	20.2	< 10	33	247	31.6	156	12.9	1.11	0.15	0.078	1.8	1.63	< 0.13	0.74	199	18.6	40.3	5.13
AX85-098	48.9	18.9	< 10	2.3	321	37.4	207	10.2	0.68	0.2	0.091	1.9	2	< 0.17	0.76	89.1	12.4	33.6	5.07
AX85-099	48.9	18	< 10	1.49	305	34.5	189	9.5	0.59	0.2	0.088	1.9	1.54	< 0.13	0.46	79.6	12.3	32.2	4.79
AX85-100	44.6	18.5	< 10	1.9	306	35.8	202	10.1	0.63	0.18	0.09	1.8	1.8	< 0.15	0.4	78.3	13.1	34.4	5.06
AX85-101	47.6	21.6	< 10	2.5	272	46.4	216	14.7	0.96	0.27	0.109	2	2.1	< 0.17	0.5	133	20.2	44.8	5.91
AX85-103	48.5	19.6	< 10	15.3	212	40.8	194	13	0.85	0.23	0.094	1.8	2	< 0.16	0.56	159	16.7	38.2	5.05
AX85-104	46.8	23	< 10	21.9	196	39.9	186	12.3	0.9	0.21	0.1	1.64	1.47	< 0.12	0.46	314	15.6	35.9	4.86
BJN83-123	47.6	21.6	< 10	31.6	207	56.9	297	24.2	1.78	0.4	0.121	2.8	2.2	< 0.18	0.6	173	26	59.5	7.83
BJN83-125	49.4	19.7	< 10	2.2	297	36.8	212	10.2	0.62	0.27	0.094	1.8	1.9	< 0.15	< 0.11	126	13.2	34.2	5.2
BND83-005	48.5	18	< 10	14.4	187	38.3	166	14.2	1.11	0.19	0.084	2.1	1.9	< 0.17	0.59	120	15.1	34.4	4.71
BND83-007	51.2	22.2	< 10	21.9	205	52.5	266	22.3	5.79	0.3	0.154	3.1	2.3	< 0.18	0.7	230	25.9	58.5	7.69
BND83-015	47.3	19.2	< 10	25.4	217	33.8	163	12.5	1	0.19	0.09	1.9	1.9	< 0.16	0.85	154	17.2	38.1	4.93
BND83-016	74.1	22.4	< 10	51.9	249	39.7	191	18.7	1.57	0.25	0.093	2	1.8	< 0.15	0.94	260	26.5	56.9	7.17
BND83-017	53	17.4	< 10	9.4	169	36.9	133	8.88	0.89	0.15	0.08	1.58	2	< 0.17	0.61	132	13.6	29.9	3.9
EL84-254	44.3	23.7	< 10	27.9	306	37.4	221	19	1.39	0.22	0.09	2	2.4	< 0.18	2.6	371	24.3	54.4	6.96
EL84-255	43.6	23.9	< 10	26.1	323	39.7	214	19	1.17	0.17	0.09	1.9	2.2	< 0.18	1.54	391	25	55	6.95
EL84-256A	42.8	22.4	< 10	27.1	311	38.1	215	19.1	1.29	0.17	0.101	1.9	2.3	< 0.18	1.66	295	24.8	55.1	7.07
EL84-257	24	26.5	< 10	55.8	318	50.6	261	22.7	1.32	0.19	0.114	2.4	2.6	< 0.21	1.32	368	31.4	68	8.74
EL84-274	77.3	19.9	< 10	27.6	244	34.8	188	13.8	1.64	0.23	0.07	1.6	2	< 0.17	0.26	205	19.2	42.8	5.53

** Potential loss during fusion*

APPENDIX A - Whole Rock & Trace Element Data (ctd.)

Results from ICP-MS (INRS-ETE), continued

SAMPLE ID	Nd ppm	Sm ppm	Eu ppm	Gd ppm	Tb ppm	Dy ppm	Ho ppm	Er ppm	Tm ppm	Yb ppm	Lu ppm	Hf ppm	Ta ppm	W ppm	Pb ppm	Bi ppm	Th ppm	U ppm
AX83-001	31	7.45	2.39	8.06	1.36	8.3	1.7	4.43	0.702	4.07	0.711	5.29	1.75	0.28	4.8	< 0.12	3.6	0.88
AX83-009	24.5	5.85	1.86	6.11	1.09	6.51	1.32	3.58	0.542	3.27	0.546	4.19	1.19	0.38	4.9	0.7	3.2	0.68
AX83-013	26.2	6.25	1.83	6.29	1.09	6.91	1.35	3.58	0.571	3.34	0.541	4.51	1.46	0.32	5.2	< 0.13	4	0.93
AX83-018	27.3	6.29	1.93	6.67	1.16	6.96	1.44	3.87	0.602	3.52	0.584	4.97	1.62	< 0.15	5.8	< 0.12	4.2	1.01
AX83-024	23.7	5.85	1.8	6	1.04	6.42	1.31	3.45	0.552	3.2	0.525	4.21	1.22	0.16	4.1	< 0.11	3.1	0.68
AX83-031	24.1	5.58	1.74	6.11	1.03	6.45	1.27	3.52	0.554	3.23	0.543	4.16	1.29	0.22	4.5	0.8	4	0.97
AX83-033	26.1	5.94	1.97	6.16	1.09	6.73	1.39	3.65	0.513	3.31	0.449	4.32	1.23	0.63	5.4	0.81	3.4	0.93
AX83-036	28.2	6.41	2.03	6.78	1.17	7.23	1.49	3.85	0.547	3.65	0.538	5.58	1.54	0.39	38.5	1.7	4.6	1.28
AX83-037	26.9	6.31	2.01	6.58	1.12	6.84	1.46	3.62	0.499	3.45	0.5	4.87	1.34	0.17	6.8	0.65	3.9	1.08
AX83-038	37.5	7.69	2.41	8.08	1.31	8.31	1.66	4.59	0.618	3.99	0.597	5.09	1.50	0.49	6.2	0.79	4.2	1.23
AX83-039	27.1	5.96	1.89	6.41	1.12	6.92	1.42	3.8	0.501	3.41	0.501	4.67	1.34	0.27	6.7	0.65	4.0	1.05
AX83-040	34.5	5.97	1.26	5.51	0.78	4.9	0.99	2.6	0.374	2.48	0.344	4.83	1.27	1.01	20.1	0.82	11.9	3.00
AX83-041	26.6	5.94	2	6.58	1.12	6.71	1.46	3.76	0.494	3.45	0.51	4.66	1.29	0.29	7.9	0.57	4.0	1.04
AX83-042	27.7	6.2	1.99	6.73	1.15	7.01	1.42	3.94	0.533	3.42	0.506	4.78	1.35	0.24	6.8	0.54	4.0	1.06
AX83-043	27.9	6.32	1.96	6.67	1.15	6.83	1.44	3.88	0.498	3.46	0.496	4.72	1.40	0.14	7	0.81	4.0	1.09
AX83-056A	21.8	5.41	1.67	5.75	1.04	6.62	1.35	3.62	0.557	3.22	0.525	3.76	1.13	0.18	4.6	< 0.13	3.8	0.84
AX83-057	22.2	5.33	1.64	5.7	0.96	6.03	1.19	3.05	0.532	3.04	0.503	3.78	1.20	0.21	15.8	< 0.12	3.6	0.88
AX83-058	39.9	8.82	2.41	9	1.52	9.3	1.8	4.9	0.768	4.29	0.725	6.75	2.01	0.49	7.8	0.88	6.3	1.49
AX83-059	35.1	8.08	2.44	8.44	1.4	8.58	1.8	4.53	0.67	4.05	0.668	5.57	1.72	0.38	5.4	< 0.12	4.3	1.04
AX83-060	30.4	7.04	2.14	7.23	1.23	7.49	1.52	4.14	0.632	3.64	0.594	4.9	1.53	0.42	6.5	< 0.12	4.6	1.09
AX83-062	28.4	6.8	2.19	7.07	1.26	7.58	1.52	4.03	0.639	3.77	0.636	5.2	1.47	0.33	5.6	< 0.13	4.2	0.98
AX83-063	29.5	7.09	2.3	7.7	1.36	7.95	1.66	4.47	0.674	3.9	0.653	5.16	1.63	0.42	4.4	0.72	3.5	0.86
AX83-064	30.2	7.43	2.39	8.03	1.3	8.09	1.69	4.49	0.704	4	0.68	5.14	1.62	0.32	4.7	0.6	3.5	0.86
AX83-065	30.5	6.99	2.2	7.64	1.29	8	1.62	4.36	0.683	3.89	0.668	5.34	1.57	0.27	5.7	0.88	3.9	1.01
AX83-066B	22.3	5.23	1.82	5.67	1.06	6.26	1.26	3.42	0.54	3.11	0.519	3.97	1.12	< 0.15	3	0.71	2.4	0.5
AX83-067	22.3	5.27	1.84	5.89	1.01	6.27	1.29	3.41	0.57	3.08	0.509	3.96	1.07	< 0.15	3.4	0.69	2.5	0.55
AX83-068	25	5.86	1.87	6.42	1.08	6.69	1.35	3.57	0.584	3.32	0.546	4.39	1.34	0.24	4.5	0.6	3.6	0.91
AX83-070	25.8	6.17	1.9	6.69	1.11	6.62	1.34	3.73	0.562	3.25	0.539	4.21	1.40	0.38	5.1	0.79	3.7	0.81
AX83-075	27	6.46	2.1	6.99	1.21	7.4	1.47	3.95	0.606	3.59	0.584	4.8	1.24	0.36	2.8	< 0.13	3.6	0.82
AX83-076	25.1	5.78	1.82	6.07	1.08	6.74	1.35	3.66	0.488	3.27	0.453	4.21	1.05	< 0.15	6	0.77	3.2	0.79
AX83-077	25.7	5.93	1.83	6.23	1.01	6.55	1.33	3.63	0.492	3.21	0.447	4.45	1.31	0.09	6	0.8	3.3	0.87
AX83-078	25.1	5.97	1.94	6.28	1.06	6.52	1.29	3.57	0.462	3.06	0.441	4.24	1.33	0.17	6.3	0.74	3.4	0.86
AX83-079	25.5	5.8	1.83	6.4	1.06	6.61	1.35	3.76	0.506	3.23	0.465	4.5	1.32	0.03	6.6	0.6	3.3	0.81
AX83-080	27.1	5.81	2	6.63	1.1	6.9	1.39	3.66	0.514	3.24	0.47	4.7	1.41	0.27	7	0.82	3.8	1.01
AX83-081	26	6.03	1.89	6.39	1.12	6.73	1.4	3.72	0.568	3.38	0.538	4.56	1.40	0.41	5.3	0.72	3.8	0.87
AX83-082	25.7	5.98	1.86	6.43	1.07	6.53	1.4	3.56	0.561	3.27	0.511	4.46	1.42	0.44	4.7	0.76	3.6	0.93
AX83-083	25.6	6.17	1.89	6.71	1.11	7	1.38	3.71	0.584	3.33	0.571	4.52	1.20	< 0.15	4.8	< 0.12	3.3	0.73
AX83-084	24.3	5.38	1.82	5.99	1.02	6.19	1.32	3.53	0.538	3.11	0.508	4.05	1.18	0.20	4.4	0.73	3.1	0.72
AX83-085	31.1	6.94	2.23	7.59	1.35	7.9	1.66	4.19	0.656	3.89	0.653	5.31	2.72	272	6.1	0.83	4.3	1.13
AX83-086	30.1	6.83	2.22	7.4	1.26	7.65	1.58	4.33	0.64	3.86	0.604	5.22	1.59	1.57	5.7	0.73	4	1.06

** Potential loss during fusion*

APPENDIX A - Whole Rock & Trace Element Data (ctd.)

Results from ICP-MS (INRS-ETE), continued

SAMPLE ID	Nd ppm	Sm ppm	Eu ppm	Gd ppm	Tb ppm	Dy ppm	Ho ppm	Er ppm	Tm ppm	Yb ppm	Lu ppm	Hf ppm	Ta ppm	W ppm	Pb ppm	Bi ppm	Th ppm	U ppm
AX83-087	33	7.62	2.38	8.21	1.43	8.32	1.76	4.64	0.714	4.13	0.675	5.8	2.15	75.8	6.8	< 0.09	5.1	1.25
AX83-088	32.5	7.61	2.38	7.94	1.39	8.5	1.72	4.5	0.721	4.14	0.678	5.79	3.10	319	7.6	< 0.11	4.9	1.21
AX83-089	32.3	7.57	2.39	8	1.36	8.25	1.74	4.59	0.729	4.2	0.695	5.79	2.99	317	8.5	< 0.11	4.9	1.21
AX83-090	32.4	7.68	2.39	8.04	1.39	8.34	1.73	4.55	0.686	4.12	0.673	5.74	2.86	304	7.0	< 0.11	4.7	1.16
AX83-091	32.8	7.64	2.37	8.07	1.39	8.31	1.68	4.56	0.731	4.07	0.659	5.78	2.86	285	7.0	< 0.11	4.8	1.23
AX83-092	25.6	6.16	1.89	6.49	1.13	7	1.36	3.78	0.593	3.39	0.565	4.62	1.52	21.1	4.8	< 0.13	3.5	0.67
AX83-093	27.5	6.48	2.05	6.8	1.2	7.1	1.48	3.67	0.593	3.51	0.583	4.77	2.16	149	5.3	< 0.13	4.1	0.99
AX83-094	25.9	5.96	1.92	6.55	1.12	6.77	1.37	3.69	0.575	3.33	0.573	4.55	2.19	230	5.9	< 0.13	3.5	0.85
AX83-095	25.3	5.97	1.89	6.4	1.1	6.73	1.38	3.69	0.614	3.33	0.586	4.61	2.23	214	4.6	< 0.13	3.4	0.81
AX83-098	31.2	7.06	2.21	7.53	1.29	8.02	1.62	4.41	0.609	3.87	0.596	5.22	1.46	0.36	7.3	0.56	4.1	1.12
AX83-099	33.8	7.86	2.49	8.55	1.44	8.76	1.9	4.85	0.651	4.28	0.636	5.45	1.68	0.31	6.5	0.6	3.6	1.04
AX83-102	24.2	5.69	1.79	6	1.06	6.3	1.26	3.45	0.468	3.15	0.46	3.99	1.23	0.09	5.8	0.7	3.1	0.81
AX83-116	23.2	5.43	1.72	5.67	0.99	6.2	1.23	3.36	0.447	3.06	0.448	3.75	1.04	0.18	6.2	0.51	3.8	1
AX85-098	26.7	6.99	2.34	7.41	1.26	7.66	1.51	3.8	0.509	3.19	0.471	5	0.90	< 0.15	2.6	0.58	1.4	0.4
AX85-099	24.6	6.55	2.3	6.83	1.21	6.99	1.37	3.54	0.463	2.98	0.44	4.74	0.78	< 0.15	2	0.44	1.3	0.41
AX85-100	26	6.81	2.53	7.32	1.23	7.41	1.44	3.72	0.504	3.13	0.449	4.99	0.85	< 0.15	1.54	0.52	1.4	0.4
AX85-101	28	6.35	2.63	7.88	1.35	8.6	1.74	4.61	0.626	4.39	0.623	5.14	1.15	0.19	3.9	0.6	2.6	0.78
AX85-103	24.5	6.01	1.89	7	1.26	8.03	1.63	4.58	0.678	4.33	0.673	4.56	1.08	< 0.15	4.9	0.55	2.4	0.71
AX85-104	22.7	5.66	1.9	6.69	1.19	7.68	1.59	4.31	0.614	3.87	0.602	4.46	1.01	< 0.15	3.3	0.42	2.3	0.68
BJN83-123	37.2	9.1	2.82	9.9	1.8	10.8	2.2	6.08	0.9	5.36	0.886	6.93	2.01	0.46	4.6	< 0.12	3.6	0.87
BJN83-125	26.4	6.94	2.43	7.3	1.24	7.44	1.49	3.64	0.553	3.16	0.506	5.02	0.94	0.12	1.39	< 0.1	1.4	0.3
BND83-005	22	5.55	1.93	6.19	1.13	7.13	1.51	3.93	0.573	3.67	0.566	4.23	1.19	< 0.15	3.3	0.67	2.1	0.55
BND83-007	35.7	8.45	2.69	9.2	1.61	9.9	2.1	5.65	0.827	5.21	0.786	6.61	2.04	34.75	6.6	0.76	4	1.18
BND83-015	22.8	5.31	1.75	5.78	1.06	6.33	1.34	3.51	0.487	3.19	0.446	4.02	1.08	0.27	5.4	0.64	3.4	0.94
BND83-016	31.4	7.38	2.11	7.57	1.29	7.57	1.53	4.07	0.638	3.74	0.598	5.14	2.15	144	7.2	< 0.1	5.3	1.3
BND83-017	18.4	4.53	1.6	5.33	0.98	6.46	1.46	3.87	0.583	3.77	0.585	3.35	0.78	< 0.15	4.1	0.68	2.2	0.6
EL84-254	31.6	6.74	2.17	7.35	1.14	7.27	1.44	3.81	0.529	3.38	0.501	5.04	1.61	2.44	5.5	0.6	3.9	1.13
EL84-255	31.9	7.2	2.22	7.3	1.19	7.4	1.47	4	0.556	3.48	0.517	4.94	1.55	0.82	5.6	0.61	4	1.06
EL84-256A	31.5	6.9	2.22	7.24	1.21	7.06	1.5	4.05	0.532	3.47	0.512	4.92	1.58	0.55	5.3	0.62	3.8	1.11
EL84-257	39.8	8.77	2.81	10	1.51	9.4	1.9	5.02	0.677	4.28	0.615	5.82	1.87	0.44	6.4	0.7	4.8	1.22
EL84-274	25.6	6.04	2	6.37	1.1	6.76	1.42	3.73	0.577	3.47	0.567	4.36	2.14	227	4.7	< 0.12	3.1	0.67

** Potential loss during fusion*

APPENDIX B - Standard Analyses

ICP-AES (INRS-ETE)

Standard	Analysis #	Total	LOI	Al_2O_3	CaO	Fe_2O_3	K_2O	MgO	MnO	Na_2O	P_2O_5 *	SiO_2	S*	TiO_2	Cd	Co	Cr	Cu	Ni	Sc	V	Zn
		wt%	*wt%*	*wt%*	*wt%*	*wt%*	*wt%*	*wt%*	*wt%*	*wt%*	*wt%*	*wt%*	*wt%*	*wt%*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*	*ppm*
TDB-1	stdA1-1	100	0.3	13.5	9.6	15	0.89	5.43	0.194	2.21	0.23	49.8	0.055	2.41	< 1.1	43	283	315	102	38.3	469	163
TDB-1	stdA2-1	99	0.3	13.4	9.6	14.9	0.87	5.38	0.193	2.18	0.22	49.3	0.045	2.38	< 1.1	43	282	312	103	38	469	155
WGB-1	stdB1-1	99	3.7	11	16	6.61	0.91	8.9	0.136	2.14	0.093	48.5	0.044	0.91	< 1	28	331	104	99	41.8	230	43
WGB-1	stdB2-1	98	3.7	10.8	15.9	6.52	0.87	8.8	0.135	2.1	0.078	48.3	0.048	0.9	< 1.3	28	329	101	94	41.5	230	33
TDB-1	stdA1-3	101	0.3	13.7	9.7	15.1	0.91	5.47	0.197	2.27	0.23	50.3	0.052	2.46	< 1.1	39	319	317	102	39.3	485	163
TDB-1	stdA2-3	100	0.3	13.7	9.7	15.1	0.9	5.44	0.196	2.26	0.23	50	0.05	2.45	1.2	43	318	320	110	39	487	157
WGB-1	stdB1-3	100	3.7	11.2	16	6.65	0.93	9	0.138	2.18	0.084	49.1	0.048	0.92	< 1	26	375	105	102	42.6	244	44
WGB-1	stdB2-3	100	3.7	11.2	16.1	6.63	0.91	9	0.138	2.19	0.087	49.3	0.044	0.92	< 1.3	25	381	105	110	43.1	240	34
QLO1-A-1	QLO1A-1			16.05	3.21	4.37	3.88	0.97	0.094	4.27	0.25	65.76	< 0.01	0.61	< 1	7.24	3.42	33.8	10.1	8.57	51	59
WPR1A	WPR1A-1			4.95	3.51	16.10	0.19	25.85	0.179	0.06	0.06	38.02	0.62	0.59	2.0	218	3239	2650	4042	17.1	139	174
SGR-1b	SGR-1b-1			6.43	8.21	2.92	1.59	4.21	0.031	2.99	0.27	28.17	0.28	0.24	< 1	10.8	29.7	67.2	38.5	4.89	126	73
SY-4	SY-4-1			20.53	7.99	6.26	1.71	0.49	0.107	7.05	0.12	50.42	0.01	0.29	< 1	2.82	9.54	5.58	9.8	0.43	7.4	93
QLO1-A-1	QLO1-A-1			16.31	3.17	4.40	3.72	0.98	0.088	4.25	0.26	64.61	< 0.01	0.64	< 1	6.02	3.01	32.3	4.2	8.86	55	61
WPR1A	WPR1A			5.03	3.48	16.72	0.190	26.96	0.172	0.066	0.07	37.44	1.57	0.61	1.1	219	3260	2887	4395	17.9	143	180
SGR-1b	SGR-1b			6.46	8.04	2.94	1.50	4.19	0.030	2.93	0.27	27.75	0.96	0.25	< 1	11.7	30.6	52.5	29.9	5.24	129	74
SY-4	SY-4			20.80	7.84	6.27	1.65	0.49	0.102	7.03	0.13	49.09	0.03	0.30	< 1	1.63	9.41	7.19	8.3	0.73	7.5	95

REFENENCE VALUES

Standard	Analysis #	Total	LOI	Al_2O_3	CaO	Fe_2O_3	K_2O	MgO	MnO	Na_2O	P_2O_5 *	SiO_2	S*	TiO_2	Cd	Co	Cr	Cu	Ni	Sc	V	Zn
	TDB-1			13.6	9.6	14.4	0.89	5.9	0.2	2.2	0.23	50.2	0.03	2.3	0.4	47	251	323	92	36	471	155
	WGB-1			11.15	15.78	6.71	0.94	9.4	0.143	2.15	0.099	49.1		0.84		29.8	291	106	76	44	222	31.5
	QLO1-A-1			16.2	3.17	4.35	3.6	1.00		4.2	0.25	65.6	0.003	0.62		7.2	3.2	29			54	61
	WPR1A			4.96	3.539	16.21	0.188	25.37	0.178	0.067	0.0694	37.69	1.768	0.5884	0.598	213	3220	2990	4390	17.3	135	160
	SGR-1b			6.52	8.38	3.03	1.66	4.44	0.0345	2.99	0.328	28.2	1.53	0.253	0.9	12	30	66	29	4.6	130	74
	SY-4			20.69	8.05	6.21	1.66	0.54	0.108	7.1	0.131	49.9	0.015	0.287		2.8	12	7	9	1.1	8	93

RELATIVE ERRORS (%)

Standard	Analysis #	Total	LOI	Al_2O_3	CaO	Fe_2O_3	K_2O	MgO	MnO	Na_2O	P_2O_5 *	SiO_2	S*	TiO_2	Cd	Co	Cr	Cu	Ni	Sc	V	Zn
TDB-1	stdA1-1			0.74	0.00	4.17	0.00	7.97	3.00	0.45	0.00	0.80	83.33	4.78		8.51	12.75	2.48	10.87	6.39	0.42	5.16
TDB-1	stdA2-1			1.47	0.00	3.47	2.25	8.81	3.50	0.91	4.35	1.79	50.00	3.48		8.51	12.35	3.41	11.96	5.56	0.42	0.00
WGB-1	stdB1-1			1.35	1.39	1.49	3.19	5.32	4.90	0.47	6.06	1.22		8.33		6.04	13.75	1.89	30.26	5.00	3.60	36.51
WGB-1	stdB2-1			3.14	0.76	2.83	7.45	6.38	5.59	2.33	21.21	1.63		7.14		6.04	13.06	4.72	23.68	5.68	3.60	4.76
TDB-1	stdA1-3			0.74	1.04	4.86	2.25	7.29	1.50	3.18	0.00	0.20	73.33	6.96		17.02	27.09	1.86	10.87	9.17	2.97	5.16
TDB-1	stdA2-3			0.74	1.04	4.86	1.12	7.80	2.00	2.73	0.00	0.40	66.67	6.52	200.00	8.51	26.69	0.93	19.57	8.33	3.40	1.29
WGB-1	stdB1-3			0.45	1.39	0.89	1.06	4.26	3.50	1.40	15.15	0.00		9.52		12.75	28.87	0.94	34.21	3.18	9.91	39.68
WGB-1	stdB2-3			0.45	2.03	1.19	3.19	4.26	3.50	1.86	12.12	0.41		9.52		16.11	30.93	0.94	44.74	2.05	8.11	7.94
QLO1-A-1	QLO1A-1			0.94	1.32	0.41	7.84	3.16		1.71	1.43	0.25		1.24		0.62	6.79	16.69			6.07	3.03
WPR1A	WPR1A-1			0.21	0.84	0.70	2.47	1.87	0.47	5.92	13.72	0.87	64.67	0.11	227.95	2.39	0.59	11.39	7.93	1.23	2.92	8.81
SGR-1b	SGR-1b-1			1.46	2.01	3.50	4.48	5.18	9.42	0.15	18.23	0.11	81.82	3.42		9.85	0.86	1.75	32.60	6.23	3.23	1.28
SY-4	SY-4-1			0.75	0.70	0.79	3.29	8.72	0.70	0.73	9.00	1.05	4.77	1.53		0.87	20.51	20.27	8.34	60.90	7.15	0.32
QLO1-A-1	QLO1-A-1			0.65	0.01	1.20	3.25	2.48		1.07	2.01	1.51		2.51		16.39	5.94	11.55			1.30	0.59
WPR1A	WPR1A			1.44	1.66	3.13	0.92	6.27	3.24	2.07	5.71	0.67	10.98	3.90	80.11	2.86	1.23	3.46	0.12	3.18	5.71	12.33
SGR-1b	SGR-1b			0.86	4.06	2.97	9.38	5.69	13.59	1.87	18.80	1.58	37.26	2.02		2.46	1.88	20.39	3.27	13.99	1.03	0.29
SY-4	SY-4			0.54	2.66	0.92	0.43	9.11	5.19	1.00	4.30	1.63	123.20	2.95		41.65	21.59	2.78	8.19	34.06	6.60	2.06

APPENDIX B - Standard Analyses

ICP-MS (INRS-ETE)

Standard	Analysis #	Co ppm	Ga ppm	As* ppm	Rb ppm	Sr ppm	Y ppm	Zr ppm	Nb ppm	Mo ppm	Ag ppm	In ppm	Sn ppm	Sb ppm	Te ppm	Cs* ppm	Ba ppm	La ppm	Ce ppm	Pr ppm
SGR-1	SGR-1b-2	11.6	13.2	41.5	74.6	414	10.2	37	5.88	36.9	0.2	0.022	1.7	3.3	0.22	4.2	290	20.2	36.9	4.13
WPR1a	wpr-1a	216	7	9,6	6.69	21.1	8.48	77	3.96	1.13	0.4	0.088	1.59	4.5	0.94	2.1	73	4.37	10.3	1.41
QLO-1	qlo1a-1	7.1	44.7	< 10	76.7	355	22.9	182	9.5	3	0.3	0.025	2.3	3	< 0.2	2.3	1450	28.8	53.4	6.15
sy-4	sy-4-1	2.3	35.6	< 10	57.5	1290	121	513	13.1	0.68	0.96	0.03	7.5	2.1	< 0.17	1.9	351	62.9	131	15.6
REFERENCE VALUES																				
	SGR-1	12	12	67		420	13	53	5.2	35			1.9	3.4		5.2	290	20	36	
	WPR1a	213	7.04	9.3	7.06	19.5	8.39	41.8	3.88			0.0899	1.16	3.13	0.958	2.38	70.6	4.04	9.69	1.362
	QLO-1	7.2		3.5	74	340	24	185	10	2.6	0.064		2.3			1.8	1370	27	54	
	sy-4	2.8	35		55	1191	119	517	13		0.6 **	0.04 **	7.1			1.5	340	58	122	15
RELATIVE ERROR (%)																				
	SGR-1b-2	3.33	10.00	37.99		1.43	21.54	30.19	13.08	5.43			10.53	2.94		19.23	0.00	1.00	2.50	
	wpr-1a	1.41			5.24	8.21	1.07	84.21	2.06			2.11	37.07	43.77	1.88	11.76	3.40	8.17	6.30	3.52
	qlo1a-1	1.39			3.65	4.41	4.58	1.62	5.00	15.38	368.75		0.00			27.78	5.84	6.67	1.11	
	sy-4-1	17.86	1.71		4.55	8.31	1.68	0.77	0.77				5.63			26.67	3.24	8.45	7.38	4.00

** Potential loss during fusion*
*** Semi-quantitative value*

APPENDIX B - Standard Analyses (ctd.)

Analysis #	Nd ppm	Sm ppm	Eu ppm	Gd ppm	Tb ppm	Dy ppm	Ho ppm	Er ppm	Tm ppm	Yb ppm	Lu ppm	Hf ppm	Ta ppm	W ppm	Pb ppm	Bi ppm	Th ppm	U ppm
SGR-1b-2	15.7	2.55	0.51	2.3	0.32	1.9	0.39	1.02	0.152	0.95	0.147	1.36	0.37	2.7	35.6	0.3	4.4	5.5
wpr-1a	6.87	1.72	0.512	1.77	0.28	1.71	0.37	0.86	0.119	0.8	0.121	1.55	0.28	0.39	8.5	0.2	0.6	0.3
qlo1a-1	24.9	4.78	1.33	4.56	0.67	3.85	0.88	2.3	0.377	2.35	0.392	4.59	0.89	0.47	14.6	0.15	4.5	1.9
sy-4-1	63.4	13.2	2.09	14.8	2.83	19.3	4.74	14.2	2.35	15	2.24	10.2	0.88	< 0.15	12	< 0.11	1.5	0.86
REFERENCE VALUES																		
SGR-1	16	2.7	0.56	2		1.9	0.4	1.1	0.17	0.94		1.4		2.6	38		4.8	5.4
WPR1a	6.26	1.617	0.497	1.76	0.269	1.624	0.322	0.886	0.126	0.790	0.121	1.142	0.242		7.92	0.122	0.64	
QLO-1	26	4.9	1.43		0.71	3.8		2.3	0.37	2.3	0.37		0.82	0.58	20		4.5	1.9
sy-4	57	12.7	2.0	14	2.6	18.2	4.3	14.2	2.3	14.8	2.1	10.6	0.9		10	0.1 **	1.4	0.8
RELATIVE ERROR (%)																		
SGR-1b-2	1.88	5.56	8.93	15.00		0.00	2.50	7.27	10.59	1.06		2.86		3.85	6.32		8.33	1.85
wpr-1a	9.74	6.37	3.02	0.57	4.09	5.30	14.91	2.93	5.56	1.27	0.00	35.73	15.70		7.32	63.93	6.25	
qlo1a-1	4.23	2.45	6.99		5.63	1.32		0.00	1.89	2.17	5.95		8.54	18.97	27.00		0.00	0.00
sy-4-1	11.23	3.94	4.50	5.71	8.85	6.04	10.23	0.00	2.17	1.35	6.67	3.77	2.22		20.00		7.14	7.50

** Potential loss during fusion*

*** Semi-quantitative value*