

APPENDIX C - WHOLE ROCK GEOCHEMISTRY

Table C1. Analyses for volcanic rocks in the undivided Vampire-Narchilla unit. All coordinates are NAD83 datum, zone 9. (See analytical notes at the end of the table.)

Sample		07LP044A	07LP044B	07LP055	Sample		09TOA006
Station		07LP044	07LP044	07LP055	Station		09TOA006
Rock		flow	flow	diabase	Rock		diabase
Unit		PcVN-v	PcVN-v	PcVN-v	Unit		PcVN-v
UTM E		594 608	594 608	594 412	UTM E		594 385
UTM N		6706 355	6706 355	6714 284	UTM N		6714 232
SiO ₂ (%)	FUS XRF	47.14	46.93	44.27	SiO ₂ (%)	FUS ICP	45.61
Al ₂ O ₃ (%)	FUS XRF	16.90	16.62	16.79	Al ₂ O ₃ (%)	FUS ICP	16.25
FeO (%)	TITR	NA	NA	NA	FeO (%)	TITR	7.10
Fe ₂ O ₃ (%)	DIFF	NA	NA	NA	Fe ₂ O ₃ (%)	DIFF	4.06
Fe ₂ O ₃ * (%)	FUS XRF	10.61	10.50	12.50	Fe ₂ O ₃ * (%)	FUS ICP	11.95
MnO (%)	FUS XRF	0.204	0.213	0.253	MnO (%)	FUS ICP	0.222
MgO (%)	FUS XRF	2.63	2.61	3.71	MgO (%)	FUS ICP	3.53
CaO (%)	FUS XRF	5.93	6.36	8.57	CaO (%)	FUS ICP	7.43
Na ₂ O (%)	FUS XRF	4.86	4.84	3.68	Na ₂ O (%)	FUS ICP	3.5
K ₂ O (%)	FUS XRF	2.18	2.18	2.20	K ₂ O (%)	FUS ICP	2.71
TiO ₂ (%)	FUS XRF	2.07	2.06	2.74	TiO ₂ (%)	FUS ICP	2.816
P ₂ O ₅ (%)	FUS XRF	1.25	1.23	1.91	P ₂ O ₅ (%)	FUS ICP	1.94
L.O.I. (%)		5.81	6.11	3.00	L.O.I. (%)		2.31
Total (%)		99.58	99.65	99.62	Total (%)		97.48
Au (ppb)	INAA	NA	NA	NA	Au (ppb)	INAA	-2
As (ppm)	INAA	NA	NA	NA	As (ppm)	INAA	-0.5
Br (ppm)	INAA	NA	NA	NA	Br (ppm)	INAA	-0.5
Cr (ppm)	INAA	NA	NA	NA	Cr (ppm)	INAA	-5
Ir (ppm)	INAA	NA	NA	NA	Ir (ppm)	INAA	-5
Sc (ppm)	INAA	1.164	1.304	1.395	Sc (ppm)	INAA	7.0
Se (ppm)	INAA	NA	NA	NA	Se (ppm)	INAA	-3
Sb (ppm)	INAA	NA	NA	NA	Sb (ppm)	INAA	0.3
Sc (ppm)	FUS ICP	NA	NA	NA	Sc (ppm)	FUS ICP	8
Be (ppm)	FUS ICP	NA	NA	NA	Be (ppm)	FUS ICP	2
V (ppm)	FUS ICP-MS	56	97	56	V (ppm)	FUS ICP	115
Cr (ppm)	FUS ICP-MS	-20	-20	-20	Cr (ppm)	FUS ICP-MS	-20
Co (ppm)	FUS ICP-MS	13	12	18	Co (ppm)	FUS ICP-MS	17
Ni (ppm)	FUS ICP-MS	-20	-20	-20	Ni (ppm)	FUS ICP-MS	-20
Cu (ppm)	FUS ICP-MS	-10	-10	20	Cu (ppm)	FUS ICP-MS	-10
Zn (ppm)	FUS ICP-MS	90	80	170	Zn (ppm)	FUS ICP-MS	110
Ga (ppm)	FUS ICP-MS	21	20	19	Ga (ppm)	FUS ICP-MS	18
Ge (ppm)	FUS ICP-MS	1.6	1.4	1.5	Ge (ppm)	FUS ICP-MS	1.6
As (ppm)	FUS ICP-MS	-5	-5	11	As (ppm)	FUS ICP-MS	-5
Rb (ppm)	FUS ICP-MS	43	41	34	Rb (ppm)	FUS ICP-MS	41
Sr (ppm)	FUS ICP-MS	296	307	2320	Sr (ppm)	FUS ICP	2106
Y (ppm)	FUS ICP-MS	46.6	46.9	44.5	Y (ppm)	FUS ICP-MS	43.1
Zr (ppm)	FUS ICP-MS	103	73	24	Zr (ppm)	FUS ICP-MS	401

APPENDIX C - WHOLE ROCK GEOCHEMISTRY, continued

Table C1, continued. Analyses for volcanic rocks in the undivided Vampire-Narchilla unit. All coordinates are NAD83 datum, zone 9. (See analytical notes at the end of the table.)

Sample		07LP044A	07LP044B	07LP055	Sample		09TOA006
Station		07LP044	07LP044	07LP055	Station		09TOA006
Nb (ppm)	FUS ICP-MS	113	111	80	Nb (ppm)	FUS ICP-MS	115
Mo (ppm)	FUS ICP-MS	-2	-2	3	Mo (ppm)	FUS ICP-MS	-2
Ag (ppm)	FUS ICP-MS	-0.5	-0.5	-0.5	Ag (ppm)	FUS ICP-MS	1.1
In (ppm)	FUS ICP-MS	-0.1	-0.1	-0.1	In (ppm)	FUS ICP-MS	-0.1
Sn (ppm)	FUS ICP-MS	7	2	2	Sn (ppm)	FUS ICP-MS	2
Sb (ppm)	FUS ICP-MS	3.1	1.2	-0.2	Sb (ppm)	FUS ICP-MS	0.5
Cs (ppm)	FUS ICP-MS	1.0	0.8	1.0	Cs (ppm)	FUS ICP-MS	1.0
Ba (ppm)	FUS ICP-MS	828	826	974	Ba (ppm)	FUS ICP	1095
La (ppm)	FUS ICP-MS	105	102	88.1	La (ppm)	FUS ICP-MS	94.7
Ce (ppm)	FUS ICP-MS	211	206	187	Ce (ppm)	FUS ICP-MS	209
Pr (ppm)	FUS ICP-MS	27.1	26.9	25.3	Pr (ppm)	FUS ICP-MS	25.0
Nd (ppm)	FUS ICP-MS	93.7	91.9	90.8	Nd (ppm)	FUS ICP-MS	101
Sm (ppm)	FUS ICP-MS	15.80	15.60	15.90	Sm (ppm)	FUS ICP-MS	17.8
Eu (ppm)	FUS ICP-MS	4.82	4.81	5.16	Eu (ppm)	FUS ICP-MS	4.98
Gd (ppm)	FUS ICP-MS	13.10	12.90	13.50	Gd (ppm)	FUS ICP-MS	13.8
Tb (ppm)	FUS ICP-MS	1.83	1.80	1.86	Tb (ppm)	FUS ICP-MS	1.56
Dy (ppm)	FUS ICP-MS	9.20	9.17	8.96	Dy (ppm)	FUS ICP-MS	9.22
Ho (ppm)	FUS ICP-MS	1.65	1.63	1.61	Ho (ppm)	FUS ICP-MS	1.64
Er (ppm)	FUS ICP-MS	4.51	4.48	4.25	Er (ppm)	FUS ICP-MS	4.31
Tm (ppm)	FUS ICP-MS	0.616	0.613	0.575	Tm (ppm)	FUS ICP-MS	0.557
Yb (ppm)	FUS ICP-MS	3.82	3.74	3.37	Yb (ppm)	FUS ICP-MS	3.39
Lu (ppm)	FUS ICP-MS	0.552	0.530	0.480	Lu (ppm)	FUS ICP-MS	0.514
Hf (ppm)	FUS ICP-MS	2.8	1.9	0.6	Hf (ppm)	FUS ICP-MS	7.8
Ta (ppm)	FUS ICP-MS	8.60	8.51	5.99	Ta (ppm)	FUS ICP-MS	7.93
W (ppm)	FUS ICP-MS	1.1	1.0	1.1	W (ppm)	FUS ICP-MS	0.7
Tl (ppm)	FUS ICP-MS	0.12	0.12	0.14	Tl (ppm)	FUS ICP-MS	0.06
Pb (ppm)	FUS ICP-MS	-5	-5	6	Pb (ppm)	FUS ICP-MS	5
Bi (ppm)	FUS ICP-MS	0.2	0.1	0.2	Bi (ppm)	FUS ICP-MS	-0.1
Th (ppm)	FUS ICP-MS	12.30	12.00	10.00	Th (ppm)	FUS ICP-MS	7.73
U (ppm)	FUS ICP-MS	2.76	2.73	4.10	U (ppm)	FUS ICP-MS	1.76

* Total iron reported as Fe₂O₃.

Notes:

Samples were analyzed at Activation Laboratories Ltd., Ancaster, Ontario, Canada.

Major oxides and most minor elements were determined by X-Ray Fluorescence (XRF) on a fusion sample containing a lithium metaborate/tetraborate flux, in 2007.

Those determined by Inductively Coupled Plasma (ICP) were performed in 2009, also on a fusion sample.

FeO was determined by titration.

Au, As, Br, Cr, Ir, Sc, Se, Sb were determined by Instrumental Neutron Activation Analysis (INAA).

Trace elements and REE were analyzed by ICP-Mass Spectrometry (MS) or ICP on a fusion sample.

An elemental abundance below the detection limit is shown as a negative value.

NA = not analyzed

APPENDIX C - WHOLE ROCK GEOCHEMISTRY, continued

Table C2a. Analyses of dikes and volcanic rocks within the Toobally and Crow formations (2003). All coordinates are NAD83 datum, zone 9. (See analytical notes at the end of the table.)

Sample		03LP003	03LP004	03LP010	03LP017	03LP021	03LP023	03LP028	03LP028%	03LP029
Station		03LP003	03LP004	03LP010	03LP017	03LP021	03LP023	03LP028	03LP028	03LP029
Rock		altered dyke/ sill	dyke/sill	altered dyke/ sill	altered dyke/ sill	dyke/sill	altered breccia	lapilli tuff	lapilli tuff	lapilli tuff
Unit		PT	PT	PT	PT	PT	EOC-v	EOC-v	EOC-v	EOC-v
UTM E		649 516	649 441	649 320	650 123	647 628	647 538	647 053	647 053	646 909
UTM N		6 698 177	6 698 146	6 694 834	6 698 395	6 697 581	6 697 584	6 697 555	6 697 555	6 697 722
SiO ₂ (%)	FUS ICP	31.79	45.35	34.74	52.62	42.08	36.67	47.45		51.12
Al ₂ O ₃ (%)	FUS ICP	13.45	15.26	14.98	14.85	14.68	10.18	14.62		12.90
Fe ₂ O ₃ * (%)	FUS ICP	11.55	11.24	10.61	10.59	15.01	15.90	11.39		10.11
MnO (%)	FUS ICP	0.183	0.184	0.125	0.045	0.176	0.230	0.162		0.209
MgO (%)	FUS ICP	8.04	7.57	3.72	2.26	4.65	4.66	8.55		8.55
CaO (%)	FUS ICP	8.57	8.72	12.15	1.95	8.23	7.99	6.21		6.54
Na ₂ O (%)	FUS ICP	1.62	2.41	2.91	0.16	2.88	0.12	3.87		3.10
K ₂ O (%)	FUS ICP	2.00	2.07	1.45	2.71	0.47	1.43	0.63		0.76
TiO ₂ (%)	FUS ICP	1.438	1.672	2.067	2.753	3.369	2.461	1.596		1.824
P ₂ O ₅ (%)	FUS ICP	0.31	0.32	0.20	0.34	0.37	0.43	0.18		0.25
L.O.I. (%)		19.68	4.31	15.64	10.88	6.92	18.56	4.35		3.34
Total (%)		98.63	99.11	98.59	99.16	98.84	98.63	99.01		98.70
Ba (ppm)	FUS ICP	389	814	268	260	337	92	326		295
Sr (ppm)	FUS ICP	198	257	526	52	698	76	380		732
Y (ppm)	FUS ICP	21	27	21	22	24	27	16		18
Sc (ppm)	FUS ICP	31	34	30	32	20	16	31		29
Zr (ppm)	FUS ICP	83	95	97	201	177	159	105		122
Be (ppm)	FUS ICP	2	1	1	2	2	1	1		1
V (ppm)	FUS ICP	226	258	249	272	270	178	193		156
V (ppm)	FUS ICP-MS	211	247	237	249	257	162	178	181	143
Cr (ppm)	FUS ICP-MS	314	271	528	254	-20	-20	279	291	250
Co (ppm)	FUS ICP-MS	39	38	52	69	47	26	45	45	34
Ni (ppm)	FUS ICP-MS	100	80	198	103	52	25	130	136	69
Cu (ppm)	FUS ICP-MS	-10	51	317	635	28	13	60	69	-10
Zn (ppm)	FUS ICP-MS	62	91	80	67	125	42	83	112	122
Ga (ppm)	FUS ICP-MS	14	16	18	17	20	14	15	15	15
Ge (ppm)	FUS ICP-MS	2	2	2	3	2	2	1	2	2
As (ppm)	FUS ICP-MS	-5	12	115	60	-5	21	-5	-5	-5
Rb (ppm)	FUS ICP-MS	50	27	54	69	14	36	10	10	13
Sr (ppm)	FUS ICP-MS	196	249	503	51	735	75	378	387	746
Y (ppm)	FUS ICP-MS	20	23	18	23	26	24	17	17	20
Zr (ppm)	FUS ICP-MS	87	105	110	210	200	172	110	112	133
Nb (ppm)	FUS ICP-MS	35	38	23	48	38	29	27	27	28
Mo (ppm)	FUS ICP-MS	3	>100	>100	2	2	>100	-2	-2	-2
Ag (ppm)	FUS ICP-MS	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
In (ppm)	FUS ICP-MS	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
Sn (ppm)	FUS ICP-MS	-1	-1	1	2	2	1	1	2	1
Sb (ppm)	FUS ICP-MS	-0.5	-0.5	-0.5	1.5	0.7	1.9	-0.5	0.7	-0.5
Cs (ppm)	FUS ICP-MS	7.8	3.3	3.1	4.1	2.2	1.4	0.8	0.8	-0.5
Ba (ppm)	FUS ICP-MS	396	828	275	264	362	95	336	340	313

APPENDIX C - WHOLE ROCK GEOCHEMISTRY, continued

Table C2a, continued. Analyses of dikes and volcanic rocks within the Toobally and Crow formations (2003). All coordinates are NAD83 datum, zone 9. (See analytical notes at the end of the table.)

Sample		03LP003	03LP004	03LP010	03LP017	03LP021	03LP023	03LP028	03LP028%	03LP029
Station		03LP003	03LP004	03LP010	03LP017	03LP021	03LP023	03LP028	03LP028	03LP029
La (ppm)	FUS ICP-MS	29.9	31.4	15.7	23.6	34.1	21.6	14.9	15.6	25.3
Ce (ppm)	FUS ICP-MS	59.9	62.5	33.8	49.8	73.2	46.3	32.8	34.3	50.4
Pr (ppm)	FUS ICP-MS	6.53	6.86	4.12	5.58	8.19	5.45	3.92	4.02	5.64
Nd (ppm)	FUS ICP-MS	27.9	28.8	19.5	24.5	35.6	24.6	18.0	18.1	25.3
Sm (ppm)	FUS ICP-MS	5	5.6	4.4	4.9	6.8	6.0	3.9	3.9	5.0
Eu (ppm)	FUS ICP-MS	1.88	2.10	1.29	1.53	2.83	2.15	1.73	1.71	2.17
Gd (ppm)	FUS ICP-MS	5	5.8	4.6	5.4	6.8	6.5	4.3	4.2	5.3
Tb (ppm)	FUS ICP-MS	0.8	0.9	0.7	0.9	1.1	1.0	0.7	0.7	0.8
Dy (ppm)	FUS ICP-MS	4.1	4.7	3.8	5.0	5.5	5.0	3.6	3.6	4.3
Ho (ppm)	FUS ICP-MS	0.8	0.9	0.7	0.9	1.0	0.9	0.7	0.7	0.8
Er (ppm)	FUS ICP-MS	2.3	2.7	2.0	2.7	2.9	2.7	1.9	1.9	2.1
Tm (ppm)	FUS ICP-MS	0.32	0.36	0.27	0.39	0.38	0.36	0.26	0.26	0.28
Yb (ppm)	FUS ICP-MS	1.8	2.1	1.5	2.2	2.3	2.2	1.5	1.5	1.7
Lu (ppm)	FUS ICP-MS	0.3	0.32	0.23	0.33	0.34	0.33	0.23	0.23	0.25
Hf (ppm)	FUS ICP-MS	2.3	2.7	3.2	5.5	5.1	4.4	2.9	2.9	3.5
Ta (ppm)	FUS ICP-MS	1.9	2.2	1.3	3.2	2.3	1.8	1.7	1.5	1.6
W (ppm)	FUS ICP-MS	1	-1	-1	2	-1	-1	-1	-1	-1
Tl (ppm)	FUS ICP-MS	0.2	0.2	0.2	0.3	-0.1	0.3	-0.1	-0.1	-0.1
Pb (ppm)	FUS ICP-MS	-5	10	18	-5	7	14	-5	10	9
Bi (ppm)	FUS ICP-MS	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4
Th (ppm)	FUS ICP-MS	2.6	3.1	1.6	5.2	4.0	3.6	1.6	1.6	2.4
U (ppm)	FUS ICP-MS	0.7	0.8	0.4	1.4	0.9	0.8	0.4	0.4	0.6

* Total iron reported as Fe₂O₃.
% Replicate analysis.

Notes:

Samples were analyzed at Activation Laboratories Ltd., Ancaster, Ontario, Canada.
 Samples were crushed and then pulverized in a ceramic mill.
 Major and minor elements were determined by Inductively Coupled Plasma (ICP) on a fusion sample.
 Trace elements and REE were analyzed by ICP-Mass Spectrometry (MS) on a fusion sample.
 An elemental abundance below the detection limit is shown as a negative value.
 Upper detection limits are indicated with > upper limit.
 NA = not analyzed

APPENDIX C - WHOLE ROCK GEOCHEMISTRY, continued

Table C2b(i). Analyses of dikes and volcanic rocks within the Crow Formation (2004-2005). All coordinates are NAD83 datum, zone 9. (See analytical notes at the end of the table.)

Sample		05LP005-1	05LP008	04LP017	04LP018-1	04LP018-2	04LP052-1	04LP052-2	04LP052-3	04LP067(1)
Station		05LP005	05LP008	04LP017	04LP018	04LP018	04LP052	04LP052	04LP052	04LP067
Rock		flow	flow	volcani-clastic	flow	flow	flow	flow	flow	flow
Unit		EOC-v	EOC-v	EOC-v	EOC-v	EOC-v	EOC-v	EOC-v	EOC-v	EOC-v
UTM E		653 170	650 376	647 676	647 392	647 392	648 485	648 485	648 485	647 299
UTM N		6702 526	6698 707	6689 077	6688 779	6688 779	6701 937	6701 937	6701 937	6688 532
SiO ₂ (%)	FUS XRF	47.37	27.87	41.18	47.94	54.73	48.08	43.57	47.46	47.38
Al ₂ O ₃ (%)	FUS XRF	18.8	11.97	13.72	11.53	10.51	14.64	17.51	15.89	15.21
Cr ₂ O ₃ (%)	FUS XRF	0.03	0.06	-0.01	-0.01	0.18	0.05	0.06	0.10	-0.01
Fe ₂ O ₃ * (%)	FUS XRF	12.13	12.22	10.03	9.91	11.96	11.73	10.30	10.89	12.34
MnO (%)	FUS XRF	0.156	0.213	0.167	0.168	0.024	0.182	0.233	0.186	0.193
MgO (%)	FUS XRF	6.65	7.44	4.34	4.90	13.81	7.58	11.91	10.03	4.32
CaO (%)	FUS XRF	0.91	16.04	8.68	7.52	0.43	4.80	5.23	3.00	4.44
Na ₂ O (%)	FUS XRF	4.96	1.91	0.10	2.55	0.03	4.26	2.76	3.45	4.63
K ₂ O (%)	FUS XRF	0.34	0.08	3.67	0.91	0.02	1.62	1.39	2.86	0.57
TiO ₂ (%)	FUS XRF	2.56	2.1	3.60	2.23	1.15	1.33	1.50	1.37	2.85
P ₂ O ₅ (%)	FUS XRF	0.28	0.27	1.12	0.50	0.11	0.44	0.48	0.44	0.62
LO.I (%)		5.75	19.39	13.90	11.93	7.30	5.62	5.37	4.17	7.77
Total (%)		99.94	99.56	100.50	100.08	100.25	100.33	100.32	99.85	100.31
Sc (ppm)	INAA	33.4	34.8	10.9	12.8	18.0	16.7	20.2	17.6	15.4
V (ppm)	FUS ICP-MS	257	235	190	133	138	109	140	122	149
Cr (ppm)	FUS ICP-MS	180	310	29	-20	1,140	299	374	338	-20
Co (ppm)	FUS ICP-MS	14	33	23	46	73	33	42	41	41
Ni (ppm)	FUS ICP-MS	50	140	-20	113	449	162	199	188	-20
Cu (ppm)	FUS ICP-MS	50	60	12	33	-10	-10	-10	12	24
Zn (ppm)	FUS ICP-MS	90	150	42	-30	64	61	116	101	39
Ga (ppm)	FUS ICP-MS	21	15	21	14	12	16	22	19	16
Ge (ppm)	FUS ICP-MS	1.5	1.3	1.7	1.0	1.4	1.0	2.0	1.4	1.1
As (ppm)	FUS ICP-MS	-5	-5	-5	-5	-5	-5	-5	-5	-5
Rb (ppm)	FUS ICP-MS	8	2	116	19	-1	15	21	37	10
Sr (ppm)	FUS ICP-MS	254	180	422	73	25	175	647	259	52
Y (ppm)	FUS ICP-MS	21.3	19	38.4	20.4	10.0	23.6	30.1	27.1	21.9
Zr (ppm)	FUS ICP-MS	135	113	413	156	54	179	202	210	167
Nb (ppm)	FUS ICP-MS	22.5	17.7	137	32.4	11.9	86.7	99.1	106	34.1
Mo (ppm)	FUS ICP-MS	-2	-2	-2	-2	-2	-2	-2	-2	-2
Ag (ppm)	FUS ICP-MS	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
In (ppm)	FUS ICP-MS	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Sn (ppm)	FUS ICP-MS	-1	-1	1	-1	-1	-1	-1	3	-1
Sb (ppm)	FUS ICP-MS	0.7	1	-0.2	-0.2	-0.2	-0.2	-0.2	0.2	-0.2
Cs (ppm)	FUS ICP-MS	1.4	0.1	3.2	1.5	0.1	0.2	0.5	0.5	0.7
Ba (ppm)	FUS ICP-MS	151	23	673	128	5	415	765	946	50
La (ppm)	FUS ICP-MS	20	6.28	159	12.3	5.66	49.8	64.4	66.2	23.4
Ce (ppm)	FUS ICP-MS	48.7	16.4	294	26.9	12.5	98.7	121	123	51.7
Pr (ppm)	FUS ICP-MS	6.21	2.35	32.0	3.31	1.46	9.97	12.4	12.3	6.23
Nd (ppm)	FUS ICP-MS	25.9	11.3	117	16.6	6.26	36.7	44.9	42.8	26.8
Sm (ppm)	FUS ICP-MS	5.62	3.31	18.8	5.46	1.46	6.55	8.02	7.34	7.29

APPENDIX C - WHOLE ROCK GEOCHEMISTRY, continued

Table C2b(i), continued. Analyses of dikes and volcanic rocks within the Crow Formation (2004-2005). All coordinates are NAD83 datum, zone 9. (See analytical notes at the end of the table.)

Sample		05LP005-1	05LP008	04LP017	04LP018-1	04LP018-2	04LP052-1	04LP052-2	04LP052-3	04LP067(1)
Station		05LP005	05LP008	04LP017	04LP018	04LP018	04LP052	04LP052	04LP052	04LP067
Eu (ppm)	FUS ICP-MS	2.44	1.46	5.61	2.10	0.484	2.24	3.24	2.61	2.83
Gd (ppm)	FUS ICP-MS	5.71	4	14.2	5.86	1.77	5.67	6.67	6.02	7.53
Tb (ppm)	FUS ICP-MS	0.88	0.69	1.91	0.88	0.34	0.91	1.05	0.98	1.12
Dy (ppm)	FUS ICP-MS	4.67	4.09	9.00	4.51	2.12	5.00	5.84	5.44	5.43
Ho (ppm)	FUS ICP-MS	0.86	0.72	1.45	0.77	0.41	0.94	1.09	0.99	0.89
Er (ppm)	FUS ICP-MS	2.32	1.83	3.73	2.07	1.08	2.73	3.04	2.79	2.30
Tm (ppm)	FUS ICP-MS	0.306	0.244	0.497	0.283	0.142	0.383	0.423	0.391	0.294
Yb (ppm)	FUS ICP-MS	1.77	1.37	2.92	1.67	0.81	2.27	2.62	2.48	1.72
Lu (ppm)	FUS ICP-MS	0.234	0.171	0.401	0.237	0.110	0.329	0.376	0.360	0.233
Hf (ppm)	FUS ICP-MS	3.5	2.9	9.5	3.8	1.5	4.1	4.3	4.4	4.4
Ta (ppm)	FUS ICP-MS	1.62	1.26	8.77	1.75	0.59	4.68	4.88	5.23	2.22
W (ppm)	FUS ICP-MS	-0.5	-0.5	1.7	0.9	-0.5	-0.5	-0.5	0.6	4.2
Tl (ppm)	FUS ICP-MS	0.1	0.05	0.82	0.17	-0.05	0.21	0.18	0.30	0.09
Pb (ppm)	FUS ICP-MS	-5	-5	10	-5	-5	6	9	9	-5
Bi (ppm)	FUS ICP-MS	-0.1	-0.1	2.7	1.4	0.9	1.5	2.1	1.5	0.6
Th (ppm)	FUS ICP-MS	1.96	1.68	14.8	2.04	0.88	6.89	7.32	7.67	2.56
U (ppm)	FUS ICP-MS	0.53	0.39	4.67	0.63	0.24	1.82	1.84	2.50	0.74

APPENDIX C - WHOLE ROCK GEOCHEMISTRY, continued

Table C2b(ii). Analyses of dikes and volcanic rocks within the Crow Formation (2004-2005). All coordinates are NAD83 datum, zone 9. (See analytical notes at the end of the table.)

Sample		04LP067(2)	05LP037	05LP060	05LP064	05LP047	05LP047A	04LP030	04LP058	04LP062
Station		04LP067	05LP037	05LP060	05LP064	05LP047	05LP047	04LP030	04LP058	04LP062
Rock		flow	flow	flow?	flow	dyke/sill?	dyke/sill?	volcani-clastic	flow	flow
Unit		EOC-v	EOC-v	EOC-v	EOC-v	EOC-v	EOC-v	EOC-v	EOC-v	EOC-v
UTM E		647 299	646 474	648 589	648 671	643 488	643 488	640 489	638 839	639 536
UTM N		6688 532	6698 311	6701 885	6703 655	6698 498	6698 498	6698 856	6706 551	6708 455
SiO ₂ (%)	FUS XRF	47.35	45.47	40.32	43.22	46.59	46.20	48.40	49.69	46.67
Al ₂ O ₃ (%)	FUS XRF	15.16	14.66	12.84	13.76	16.70	16.68	14.07	15.89	14.26
Cr ₂ O ₃ (%)	FUS XRF	-0.01	0.05	0.10	0.07	0.01	0.05	0.04	0.01	-0.01
Fe ₂ O ₃ * (%)	FUS XRF	12.38	11.29	13.63	14.21	11.33	11.40	11.54	10.83	14.61
MnO (%)	FUS XRF	0.193	0.118	0.132	0.216	0.158	0.163	0.166	0.138	0.136
MgO (%)	FUS XRF	4.28	9.38	8.85	11.59	5.15	5.18	7.64	6.14	5.02
CaO (%)	FUS XRF	4.43	5.04	8.34	5.74	10.67	10.66	8.78	4.41	6.28
Na ₂ O (%)	FUS XRF	4.66	4.14	0.69	2.89	2.33	2.47	1.87	4.69	4.61
K ₂ O (%)	FUS XRF	0.57	0.39	2.55	0.84	1.40	1.30	2.28	2.14	1.40
TiO ₂ (%)	FUS XRF	2.84	1.75	1.73	1.78	2.26	2.22	2.42	2.86	3.91
P ₂ O ₅ (%)	FUS XRF	0.61	0.42	0.32	0.44	0.33	0.33	0.32	0.44	0.65
LOI (%)		7.77	7.21	10.03	4.53	2.14	2.52	2.83	3.15	2.19
Total (%)		100.23	99.92	99.53	99.29	99.07	99.17	100.36	100.39	99.73
Sc (ppm)	INAA		20.4	28.2	27.9	29.0	29.2	27.9	26.8	29.5
V (ppm)	FUS ICP-MS		116	164	163	209	222	255	247	314
Cr (ppm)	FUS ICP-MS		270	440	380	70	80	238	57	-20
Co (ppm)	FUS ICP-MS		33	37	47	31	31	42	40	34
Ni (ppm)	FUS ICP-MS		140	230	190	30	30	125	35	-20
Cu (ppm)	FUS ICP-MS		-10	-10	-10	50	50	74	68	13
Zn (ppm)	FUS ICP-MS		70	70	90	60	70	86	110	83
Ga (ppm)	FUS ICP-MS		16	15	14	18	18	19	20	20
Ge (ppm)	FUS ICP-MS		1.2	1.1	1.2	1.3	1.3	1.5	0.9	1.5
As (ppm)	FUS ICP-MS		-5	-5	-5	6	-5	-5	-5	-5
Rb (ppm)	FUS ICP-MS		8	64	12	27	25	35	23	15
Sr (ppm)	FUS ICP-MS		91	81	291	385	395	241	70	245
Y (ppm)	FUS ICP-MS		23.9	19.5	22.2	22.7	22.3	26.1	25.9	31.1
Zr (ppm)	FUS ICP-MS		145	101	120	180	177	176	245	186
Nb (ppm)	FUS ICP-MS		43.5	25.4	34.9	28.0	27.4	31.2	45.1	39.0
Mo (ppm)	FUS ICP-MS		-2	-2	-2	-2	-2	-2	2	-2
Ag (ppm)	FUS ICP-MS		-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
In (ppm)	FUS ICP-MS		-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Sn (ppm)	FUS ICP-MS		-1	-1	-1	-1	-1	-1	-1	-1
Sb (ppm)	FUS ICP-MS		1.1	0.9	0.9	0.9	0.8	-0.2	-0.2	-0.2
Cs (ppm)	FUS ICP-MS		0.2	2.1	0.7	0.3	0.2	0.4	0.3	0.4
Ba (ppm)	FUS ICP-MS		40	168	371	249	227	288	147	193
La (ppm)	FUS ICP-MS		29.7	19.5	28.8	24.4	23.7	25.9	24.1	33.0
Ce (ppm)	FUS ICP-MS		60.4	42.8	60.6	56.7	52.9	56.7	57.4	75.7
Pr (ppm)	FUS ICP-MS		7.11	5.50	7.26	7.13	6.63	6.72	7.01	9.09
Nd (ppm)	FUS ICP-MS		28.0	22.4	28.7	28.3	26.7	28.0	28.0	38.6
Sm (ppm)	FUS ICP-MS		5.74	4.79	5.71	6.05	5.74	6.38	5.88	8.36

APPENDIX C - WHOLE ROCK GEOCHEMISTRY, continued

Table C2b(ii), continued. Analyses of dikes and volcanic rocks within the Crow Formation (2004-2005). All coordinates are NAD83 datum, zone 9. (See analytical notes at the end of the table.)

Sample		04LP067(2)	05LP037	05LP060	05LP064	05LP047	05LP047A	04LP030	04LP058	04LP062
Station		04LP067	05LP037	05LP060	05LP064	05LP047	05LP047	04LP030	04LP058	04LP062
Eu (ppm)	FUS ICP-MS		2.04	1.69	1.90	2.08	2.01	2.10	1.53	3.00
Gd (ppm)	FUS ICP-MS		5.61	4.72	5.50	5.56	5.39	6.15	5.54	8.44
Tb (ppm)	FUS ICP-MS		0.85	0.71	0.78	0.86	0.82	1.00	0.92	1.32
Dy (ppm)	FUS ICP-MS		4.73	3.91	4.37	4.71	4.68	5.51	5.19	6.88
Ho (ppm)	FUS ICP-MS		0.90	0.72	0.84	0.89	0.89	1.02	1.02	1.25
Er (ppm)	FUS ICP-MS		2.50	2.07	2.42	2.33	2.45	2.84	2.94	3.34
Tm (ppm)	FUS ICP-MS		0.349	0.280	0.333	0.328	0.336	0.383	0.418	0.453
Yb (ppm)	FUS ICP-MS		2.11	1.59	1.96	2.00	1.97	2.23	2.56	2.69
Lu (ppm)	FUS ICP-MS		0.299	0.223	0.287	0.294	0.270	0.314	0.367	0.358
Hf (ppm)	FUS ICP-MS		3.3	2.6	2.8	4.5	4.3	4.7	6.2	5.2
Ta (ppm)	FUS ICP-MS		2.47	1.51	2.18	1.96	1.91	1.87	2.57	2.46
W (ppm)	FUS ICP-MS		-0.5	-0.5	-0.5	-0.5	1.2	-0.5	1.1	1.1
Tl (ppm)	FUS ICP-MS		-0.05	0.20	0.06	0.09	0.09	0.18	0.10	0.10
Pb (ppm)	FUS ICP-MS		6	7	-5	-5	-5	-5	-5	6
Bi (ppm)	FUS ICP-MS		-0.1	-0.1	-0.1	-0.1	-0.1	0.6	0.5	1.0
Th (ppm)	FUS ICP-MS		4.79	2.52	3.47	3.36	2.95	2.52	4.44	2.89
U (ppm)	FUS ICP-MS		1.14	0.48	0.67	0.80	0.72	0.62	0.80	0.72

* Total iron reported as Fe₂O₃.

Notes:

Samples were analyzed at Activation Laboratories Ltd., Ancaster, Ontario, Canada.

Samples were crushed and then pulverized in a ceramic mill. Major oxides and most minor elements were determined by X-Ray Fluorescence (XRF) on a fusion sample. Sc was analyzed using Instrumental Neutron Activation Analysis (INAA). Trace elements and REE were analyzed by ICP-Mass Spectrometry (MS) at research detection limits on a fusion sample containing a lithium metaborate/tetraborate flux. An elemental abundance below the detection limit is shown as a negative value. NA = not analyzed

APPENDIX C - WHOLE ROCK GEOCHEMISTRY, continued

Table C2c. Analyses of volcanic rocks within the Crow Formation (2009-2010). All coordinates are NAD83 datum, zone 9. (See analytical notes at the end of the table.)

Sample		09TOA141E	09TOA149	09LP082-1	09LP083-2	10TOA024
Station		09TOA141	09TOA149	09LP082	09LP083	10TOA024
Rock		flow	flow	flow	tuff	flow
Unit		€OC-v	€OC-v	€OC-v	€OC-v	€OC-v
UTM E		633 677	640 254	632 218	633 122	637 550
UTM N		6 715 218	6 718 980	6 762 262	6 761 980	6 718 719
SiO ₂ (%)	FUS ICP	60.26	45.03	42.37	46.04	69.39
Al ₂ O ₃ (%)	FUS ICP	16.06	13.38	17.08	20.31	12.85
FeO (%)	TITR	1.31	5.43	6.35	3.90	1.11
Fe ₂ O ₃ (%)	DIFF	6.79	5.34	3.20	3.25	2.72
Fe ₂ O ₃ * (%)	FUS ICP	8.25	11.37	10.26	7.58	3.95
MnO (%)	FUS ICP	0.015	0.164	0.084	0.139	0.050
MgO (%)	FUS ICP	1.81	5.33	6.84	6.06	3.16
CaO (%)	FUS ICP	0.13	8.49	6.58	4.16	0.50
Na ₂ O (%)	FUS ICP	0.58	4.29	3.09	3.19	0.65
K ₂ O (%)	FUS ICP	7.68	0.19	2.43	3.79	4.48
TiO ₂ (%)	FUS ICP	0.589	2.609	2.03	1.56	0.44
P ₂ O ₅ (%)	FUS ICP	0.08	0.33	0.30	0.21	0.34
L.O.I. (%)		2.99	8.26	8.60	6.41	2.75
Total (%)		98.43	99.45	99.69	99.45	98.54
Au (ppb)	INAA	-2	-2	-2	-2	NA
As (ppm)	INAA	-0.5	-0.5	-0.5	4.1	NA
Br (ppm)	INAA	-0.5	-0.5	-0.5	-0.5	NA
Cr (ppm)	INAA	-5	43	221	56	NA
Ir (ppm)	INAA	-5	-5	-5	-5	NA
Sc (ppm)	INAA	22.6	29.0	28.9	20.4	NA
Se (ppm)	INAA	-3	-3	-3	-3	NA
Sb (ppm)	INAA	0.3	-0.2	0.2	0.5	NA
Sc (ppm)	FUS ICP	24	33	32	22	9
Be (ppm)	FUS ICP	4	1	1	1.0	3
V (ppm)	FUS ICP	84	338	285	208	44
Cr (ppm)	FUS ICP-MS	-20	50	210	50	-20
Co (ppm)	FUS ICP-MS	4	34	37	28	15
Ni (ppm)	FUS ICP-MS	-20	40	70	30	-20
Cu (ppm)	FUS ICP-MS	-10	110	-10	30	-10
Zn (ppm)	FUS ICP-MS	40	150	100	120	50
Ga (ppm)	FUS ICP-MS	27	17	18	18	24
Ge (ppm)	FUS ICP-MS	1.9	2.0	1.1	0.9	2.0
As (ppm)	FUS ICP-MS	-5	-5	-5	5	-5
Rb (ppm)	FUS ICP-MS	143	3	37	67	126
Sr (ppm)	FUS ICP	21	133	108	102	15
Y (ppm)	FUS ICP-MS	51.7	26.2	20.8	14.9	51.4
Zr (ppm)	FUS ICP-MS	817	190	144	111	143

APPENDIX C - WHOLE ROCK GEOCHEMISTRY, continued

Table C2c, continued. Analyses of volcanic rocks within the Crow Formation (2009-2010). All coordinates are NAD83 datum, zone 9. (See analytical notes at the end of the table.)

Sample		09TOA141E	09TOA149	09LP082-1	09LP083-2	10TOA024
Station		09TOA141	09TOA149	09LP082	09LP083	10TOA024
Nb (ppm)	FUS ICP-MS	108	36.2	26	23.4	51.9
Mo (ppm)	FUS ICP-MS	-2	-2	-2	-2	-2
Ag (ppm)	FUS ICP-MS	2.4	0.5	-0.5	-0.5	-0.5
In (ppm)	FUS ICP-MS	-0.1	-0.1	-0.1	-0.1	-0.1
Sn (ppm)	FUS ICP-MS	6	2	1	-1	9
Sb (ppm)	FUS ICP-MS	-0.2	-0.2	-0.2	0.3	-0.2
Cs (ppm)	FUS ICP-MS	3.6	0.3	5.0	2.1	2.5
Ba (ppm)	FUS ICP	628	43	204	288	289
La (ppm)	FUS ICP-MS	91.5	23.3	19.0	15.7	41.0
Ce (ppm)	FUS ICP-MS	195	53.1	42	34.5	88.1
Pr (ppm)	FUS ICP-MS	21.10	6.57	5.14	4.16	10.1
Nd (ppm)	FUS ICP-MS	77.9	28.0	22	17.1	38.4
Sm (ppm)	FUS ICP-MS	13.6	6.53	5.0	3.76	9.40
Eu (ppm)	FUS ICP-MS	3.26	2.08	1.44	1.33	1.140
Gd (ppm)	FUS ICP-MS	10.5	6.19	4.88	3.53	9.79
Tb (ppm)	FUS ICP-MS	1.70	0.96	0.78	0.56	1.68
Dy (ppm)	FUS ICP-MS	9.81	5.32	4.32	3.06	9.93
Ho (ppm)	FUS ICP-MS	1.98	0.96	0.77	0.58	1.91
Er (ppm)	FUS ICP-MS	5.74	2.57	2.11	1.56	5.43
Tm (ppm)	FUS ICP-MS	0.877	0.352	0.302	0.226	0.813
Yb (ppm)	FUS ICP-MS	6.07	2.19	1.85	1.39	5.25
Lu (ppm)	FUS ICP-MS	1.02	0.331	0.275	0.200	0.820
Hf (ppm)	FUS ICP-MS	17.0	4.2	3.2	2.5	4.3
Ta (ppm)	FUS ICP-MS	7.47	2.72	1.91	1.69	4.49
W (ppm)	FUS ICP-MS	-0.5	-0.5	-0.5	-0.5	-0.5
Tl (ppm)	FUS ICP-MS	0.18	-0.05	-0.05	0.09	0.32
Pb (ppm)	FUS ICP-MS	6	20	-5	7	-5
Bi (ppm)	FUS ICP-MS	-0.1	-0.1	-0.1	-0.1	-0.1
Th (ppm)	FUS ICP-MS	21.0	2.89	2.6	2.28	20.40
U (ppm)	FUS ICP-MS	2.75	0.74	0.66	0.48	4.57

* Total iron reported as Fe₂O₃.

Notes:

Samples were analyzed at Activation Laboratories Ltd., Ancaster, Ontario, Canada.

Samples were crushed and then pulverized in a mild steel mill.

Major elemental oxides and most minor elements were determined by Inductively Coupled Plasma (ICP) on a fusion sample.

FeO was determined by titration.

Au, As, Br, Cr, Ir, Sc, Se and Sb were determined by Instrumental Neutron Activation Analysis (INAA).

Trace elements and REE were analyzed by ICP-Mass Spectrometry (MS) at research detection limits on a fusion sample containing a lithium metaborate/tetraborate flux.

An elemental abundance below the detection limit is shown as a negative value.

NA = not analyzed

APPENDIX C - WHOLE ROCK GEOCHEMISTRY, continued

Table C3. Analyses for volcanic rocks of the Rabbitkettle Formation. All coordinates are NAD83 datum, zone 9. (See analytical notes at the end of the table.)

Sample		J96-10 155.7m	J96-11 36.8m	07LP032	Sample		09LP003-3	09LP049-2	09RAS050D	09TOA161	09TOA165	09RAS168B extra
Station		drill hole	drill hole	07LP032	Station		09LP003-3	09LP049	09RAS050	09TOA161	09TOA165	09RAS168
Rock		flow/sill?	flow/sill?	flow	Rock		altered flow	flow	sill	flow	flow	flow
Unit		ЄOR-v	ЄOR-v	ЄOR-v	Unit		ЄOR-v	ЄOR-v	ЄOR-v	ЄOR-v	ЄOR-v	ЄOR-v
Easting		590 910	590 870	591 303	Easting		582 955	569 574	572 762	613 430	612 912	609 000
Northing		6 698 779	6 699 220	6 698 365	Northing		6 709 689	6 722 949	6 749 796	6 753 492	6 739 782	6 727 200
SiO ₂ (%)	FUS XRF	44.31	43.44	43.97	SiO ₂ (%)	FUS ICP	55.99	48.36	48.34	49.10	45.84	43.62
Al ₂ O ₃ (%)	FUS XRF	14.43	14.58	14.49	Al ₂ O ₃ (%)	FUS ICP	16.82	16.04	12.67	12.58	15.26	14.39
FeO (%)	TITR	NA	NA	NA	FeO (%)	TITR	4.51	6.19	6.59	8.10	6.41	9.40
Fe ₂ O ₃ (%)	DIFF	NA	NA	NA	Fe ₂ O ₃ (%)	DIFF	0.81	4.25	5.70	0.76	3.61	2.10
Fe ₂ O ₃ * (%)	FUS XRF	13.26	13.15	12.92	Fe ₂ O ₃ * (%)	FUS ICP	5.82	11.13	13.02	9.76	10.73	12.55
MnO (%)	FUS XRF	0.193	0.199	0.185	MnO (%)	FUS ICP	0.098	0.156	0.176	0.154	0.133	0.158
MgO (%)	FUS XRF	8.80	8.18	8.30	MgO (%)	FUS ICP	6.29	5.75	5.56	8.91	6.76	9.50
CaO (%)	FUS XRF	8.07	8.84	8.85	CaO (%)	FUS ICP	2.47	8.49	5.07	7.24	9.40	8.94
Na ₂ O (%)	FUS XRF	2.54	2.35	2.68	Na ₂ O (%)	FUS ICP	4.92	2.93	3.53	3.93	2.00	1.96
K ₂ O (%)	FUS XRF	0.92	1.83	0.64	K ₂ O (%)	FUS ICP	1.19	0.87	0.11	1.04	3.16	1.62
TiO ₂ (%)	FUS XRF	2.88	2.90	2.92	TiO ₂ (%)	FUS ICP	0.669	2.326	3.254	1.129	3.076	2.292
P ₂ O ₅ (%)	FUS XRF	0.53	0.52	0.52	P ₂ O ₅ (%)	FUS ICP	0.15	0.66	0.41	0.17	0.58	0.34
Cr ₂ O ₃ (%)	FUS XRF	0.02	0.02	0.02	Cr ₂ O ₃ (%)	FUS ICP	NA	NA	NA	NA	NA	NA
LO.I. (%)		4.46	3.31	4.25	LO.I. (%)		5.08	2.79	7.90	4.45	3.12	4.17
Total (%)		100.41	99.32	99.75	Total (%)		99.49	99.51	100.10	98.47	100.10	99.55
Au (ppb)	INAA	NA	NA	NA	Au (ppb)	INAA	-2	-2	-2	-2	-2	-2
As (ppm)	INAA	NA	NA	NA	As (ppm)	INAA	4.2	-0.5	11.8	-0.5	-0.5	2.2
Br (ppm)	INAA	NA	NA	NA	Br (ppm)	INAA	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
Cr (ppm)	INAA	NA	NA	NA	Cr (ppm)	INAA	107	107	42	337	346	491
Ir (ppm)	INAA	NA	NA	NA	Ir (ppm)	INAA	-5	-5	-5	-5	-5	-5
Sc (ppm)	INAA	26.5	26.7	26.8	Sc (ppm)	INAA	16.1	24.6	28.2	20.1	27.4	31.6
Se (ppm)	INAA	NA	NA	NA	Se (ppm)	INAA	-3	-3	-3	-3	-3	-3
Sb (ppm)	INAA	NA	NA	NA	Sb (ppm)	INAA	-0.2	-0.2	0.8	0.5	0.2	0.5
Sc (ppm)	FUS ICP	NA	NA	NA	Sc (ppm)	FUS ICP	19	28	31	22	31	36
Be (ppm)	FUS ICP	NA	NA	NA	Be (ppm)	FUS ICP	2	2	1	-1	-1	-1
V (ppm)	FUS ICP-MS	254	261	264	V (ppm)	FUS ICP	148	247	426	179	312	305
Cr (ppm)	FUS ICP-MS	280	280	270	Cr (ppm)	FUS ICP-MS	120	110	40	350	320	470
Co (ppm)	FUS ICP-MS	48	48	47	Co (ppm)	FUS ICP-MS	17	32	46	45	41	54
Ni (ppm)	FUS ICP-MS	140	140	140	Ni (ppm)	FUS ICP-MS	50	-20	-20	240	130	240
Cu (ppm)	FUS ICP-MS	70	70	50	Cu (ppm)	FUS ICP-MS	30	10	60	50	30	70
Zn (ppm)	FUS ICP-MS	140	110	140	Zn (ppm)	FUS ICP-MS	50	110	130	90	60	90
Ga (ppm)	FUS ICP-MS	20	19	20	Ga (ppm)	FUS ICP-MS	16	18	19	15	16	21
Ge (ppm)	FUS ICP-MS	1.6	1.4	1.4	Ge (ppm)	FUS ICP-MS	1.8	1.6	2.1	1.4	1.5	1.5
As (ppm)	FUS ICP-MS	-5	-5	-5	As (ppm)	FUS ICP-MS	8	-5	13	-5	-5	-5

APPENDIX C - WHOLE ROCK GEOCHEMISTRY, continued

Table C3, continued. Analyses for volcanic rocks of the Rabbitkettle Formation. All coordinates are NAD83 datum, zone 9. (See analytical notes at the end of the table.)

Sample		J96-10 155.7m	J96-11 36.8m	07LP032	Sample		09LP003-3	09LP049-2	09RAS050D	09TOA161	09TOA165	09RAS168B extra
Station		drill hole	drill hole	07LP032	Station		09LP003-3	09LP049	09RAS050	09TOA161	09TOA165	09RAS168
Rb (ppm)	FUS ICP-MS	20	32	9	Rb (ppm)	FUS ICP-MS	30	15	<1	13	47	17
Sr (ppm)	FUS ICP-MS	615	827	855	Sr (ppm)	FUS ICP	177	531	436	267	772	367
Y (ppm)	FUS ICP-MS	30.6	30.7	30.6	Y (ppm)	FUS ICP-MS	18.0	38.8	32.1	16.3	21.3	23.5
Zr (ppm)	FUS ICP-MS	272	271	271	Zr (ppm)	FUS ICP-MS	131	252	222	101	147	192
Nb (ppm)	FUS ICP-MS	55.9	56.2	56.9	Nb (ppm)	FUS ICP-MS	9.9	21.1	43.6	14.3	37.0	44.8
Mo (ppm)	FUS ICP-MS	2	-2	-2	Mo (ppm)	FUS ICP-MS	-2	-2	-2	-2	-2	-2
Ag (ppm)	FUS ICP-MS	0.9	0.6	< 0.5	Ag (ppm)	FUS ICP-MS	-0.5	0.7	0.6	-0.5	-0.5	0.6
In (ppm)	FUS ICP-MS	-0.1	-0.1	-0.1	In (ppm)	FUS ICP-MS	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Sn (ppm)	FUS ICP-MS	2	2	3	Sn (ppm)	FUS ICP-MS	1	2	2	-1	1	1
Sb (ppm)	FUS ICP-MS	3.9	-0.2	-0.2	Sb (ppm)	FUS ICP-MS	-0.2	-0.2	0.9	-0.2	-0.2	0.4
Cs (ppm)	FUS ICP-MS	2.3	1.7	1.0	Cs (ppm)	FUS ICP-MS	1.7	1.8	1.7	2.9	2.9	1.7
Ba (ppm)	FUS ICP-MS	982	1080	1130	Ba (ppm)	FUS ICP	650	551	435	601	2951	1597
La (ppm)	FUS ICP-MS	47.8	46.6	45.3	La (ppm)	FUS ICP-MS	27.7	32.0	28.1	52.6	32.2	30.7
Ce (ppm)	FUS ICP-MS	95.5	93.6	92.4	Ce (ppm)	FUS ICP-MS	54.7	74.5	62.9	90.0	74.9	64.6
Pr (ppm)	FUS ICP-MS	11.9	11.8	12.1	Pr (ppm)	FUS ICP-MS	5.92	9.36	7.77	9.05	9.17	7.55
Nd (ppm)	FUS ICP-MS	43.7	42.4	42.6	Nd (ppm)	FUS ICP-MS	22.4	39.2	33.2	31.3	38.0	31.0
Sm (ppm)	FUS ICP-MS	8.65	8.26	8.39	Sm (ppm)	FUS ICP-MS	4.23	8.65	7.61	4.48	7.76	6.53
Eu (ppm)	FUS ICP-MS	2.66	2.68	2.52	Eu (ppm)	FUS ICP-MS	0.810	2.30	2.27	1.41	2.21	1.82
Gd (ppm)	FUS ICP-MS	7.64	7.65	7.68	Gd (ppm)	FUS ICP-MS	3.49	7.97	7.23	4.04	6.69	6.12
Tb (ppm)	FUS ICP-MS	1.19	1.16	1.17	Tb (ppm)	FUS ICP-MS	0.55	1.29	1.11	0.60	0.91	0.91
Dy (ppm)	FUS ICP-MS	6.09	5.93	6.01	Dy (ppm)	FUS ICP-MS	3.22	7.40	6.21	3.26	4.68	4.91
Ho (ppm)	FUS ICP-MS	1.10	1.09	1.06	Ho (ppm)	FUS ICP-MS	0.65	1.41	1.14	0.62	0.84	0.90
Er (ppm)	FUS ICP-MS	3.05	2.96	2.93	Er (ppm)	FUS ICP-MS	1.93	4.00	3.26	1.70	2.14	2.40
Tm (ppm)	FUS ICP-MS	0.413	0.400	0.399	Tm (ppm)	FUS ICP-MS	0.289	0.596	0.460	0.246	0.278	0.333
Yb (ppm)	FUS ICP-MS	2.46	2.46	2.46	Yb (ppm)	FUS ICP-MS	1.95	3.85	2.87	1.50	1.63	2.02
Lu (ppm)	FUS ICP-MS	0.381	0.365	0.362	Lu (ppm)	FUS ICP-MS	0.319	0.613	0.422	0.231	0.238	0.296
Hf (ppm)	FUS ICP-MS	6.3	6.3	6.3	Hf (ppm)	FUS ICP-MS	3.0	4.9	4.9	2.1	3.3	4.3
Ta (ppm)	FUS ICP-MS	4.35	4.27	4.29	Ta (ppm)	FUS ICP-MS	0.82	1.35	3.18	0.63	2.79	3.18
W (ppm)	FUS ICP-MS	0.8	0.7	0.8	W (ppm)	FUS ICP-MS	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
Tl (ppm)	FUS ICP-MS	0.12	0.08	0.06	Tl (ppm)	FUS ICP-MS	0.09	-0.05	-0.05	-0.05	0.10	-0.05
Pb (ppm)	FUS ICP-MS	5	-5	7	Pb (ppm)	FUS ICP-MS	28	6	-5	6	-5	-5

APPENDIX C - WHOLE ROCK GEOCHEMISTRY, continued

Table C3, continued. Analyses for volcanic rocks of the Rabbitkettle Formation. All coordinates are NAD83 datum, zone 9. (See analytical notes at the end of the table.)

Sample		J96-10 155.7m	J96-11 36.8m	07LP032	Sample		09LP003-3	09LP049-2	09RAS050D	09TOA161	09TOA165	09RAS168B extra
Station		drill hole	drill hole	07LP032	Station		09LP003-3	09LP049	09RAS050	09TOA161	09TOA165	09RAS168
Bi (ppm)	FUS ICP-MS	0.1	-0.1	0.2	Bi (ppm)	FUS ICP-MS	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Th (ppm)	FUS ICP-MS	7.29	6.83	6.99	Th (ppm)	FUS ICP-MS	8.15	3.36	4.30	2.82	6.81	4.08
U (ppm)	FUS ICP-MS	1.87	1.67	1.68	U (ppm)	FUS ICP-MS	1.98	0.7	1.04	0.85	0.66	1.04

* Total iron reported as Fe₂O₃.

Notes:

Samples were analyzed at Activation Laboratories Ltd., Ancaster, Ontario, Canada.

Samples were crushed and then pulverized in a mild steel mill.

Major oxides and most minor elements were determined by X-Ray Fluorescence (XRF) on a fusion sample containing a lithium metaborate/tetraborate flux, in 2007.

Those determined by Inductively Coupled Plasma (ICP) were performed in 2009, also on a fusion sample.

FeO was determined by titration.

Au, As, Br, Cr, Ir, Sc, Se, Sb were determined by Instrumental Neutron Activation Analysis (INAA).

Trace elements and REE were analyzed by ICP-Mass Spectrometry (MS) or ICP on a fusion sample.

An elemental abundance below the detection limit is shown as a negative value.

NA = not analyzed

APPENDIX C - WHOLE ROCK GEOCHEMISTRY, continued

Table C4. Analyses of volcanic rocks within the Sunblood Formation. All coordinates are NAD83 datum, zone 9.

Sample		09LP072	09MBKL01
Station		09LP072	09MBKL001
Rock		flow	flow
Unit		OSu-v	OSu-v
UTM E		621 003	626 074
UTM N		6 684 592	6 705 020
SiO ₂ (%)	FUS ICP	48.73	48.28
Al ₂ O ₃ (%)	FUS ICP	14.98	15.07
FeO (%)	TITR	5.80	10.20
Fe ₂ O ₃ (%)	DIFF	2.11	0.73
Fe ₂ O ₃ * (%)	FUS ICP	8.56	12.07
MnO (%)	FUS ICP	0.066	0.097
MgO (%)	FUS ICP	8.15	8.94
CaO (%)	FUS ICP	4.73	4.29
Na ₂ O (%)	FUS ICP	0.71	2.44
K ₂ O (%)	FUS ICP	5.2	2.1
TiO ₂ (%)	FUS ICP	1.608	2.407
P ₂ O ₅ (%)	FUS ICP	0.27	0.28
L.O.I. (%)		7.20	2.09
Total (%)		100.20	98.05
Au (ppb)	INAA	-2	-2
As (ppm)	INAA	1.6	-0.5
Br (ppm)	INAA	-0.5	-0.5
Cr (ppm)	INAA	348	69
Ir (ppm)	INAA	-5	-5
Sc (ppm)	INAA	23.6	32.5
Se (ppm)	INAA	-3	-3
Sb (ppm)	INAA	-0.2	-0.2
Sc (ppm)	FUS ICP	25	35
Be (ppm)	FUS ICP	-1	1
V (ppm)	FUS ICP	226	307
Cr (ppm)	FUS ICP-MS	310	70
Co (ppm)	FUS ICP-MS	55	42
Ni (ppm)	FUS ICP-MS	160	40
Cu (ppm)	FUS ICP-MS	100	70
Zn (ppm)	FUS ICP-MS	60	90
Ga (ppm)	FUS ICP-MS	17	19
Ge (ppm)	FUS ICP-MS	0.8	1.2
As (ppm)	FUS ICP-MS	-5	-5
Rb (ppm)	FUS ICP-MS	40	32
Sr (ppm)	FUS ICP	123	197

continued...

Sample (cont.)		09LP072	09MBKL01
Station (cont.)		09LP072	09MBKL001
Y (ppm)	FUS ICP-MS	20.2	23.6
Zr (ppm)	FUS ICP-MS	130	190
Nb (ppm)	FUS ICP-MS	29.9	34.6
Mo (ppm)	FUS ICP-MS	-2	-2
Ag (ppm)	FUS ICP-MS	-0.5	0.6
In (ppm)	FUS ICP-MS	-0.1	-0.1
Sn (ppm)	FUS ICP-MS	1	2
Sb (ppm)	FUS ICP-MS	-0.2	-0.2
Cs (ppm)	FUS ICP-MS	3.2	4.2
Ba (ppm)	FUS ICP	517	875
La (ppm)	FUS ICP-MS	18.0	18.6
Ce (ppm)	FUS ICP-MS	38.9	46.2
Pr (ppm)	FUS ICP-MS	4.68	5.98
Nd (ppm)	FUS ICP-MS	19.4	26.5
Sm (ppm)	FUS ICP-MS	4.68	6.26
Eu (ppm)	FUS ICP-MS	0.996	1.74
Gd (ppm)	FUS ICP-MS	4.55	5.75
Tb (ppm)	FUS ICP-MS	0.74	0.88
Dy (ppm)	FUS ICP-MS	4.26	4.92
Ho (ppm)	FUS ICP-MS	0.81	0.90
Er (ppm)	FUS ICP-MS	2.20	2.41
Tm (ppm)	FUS ICP-MS	0.318	0.317
Yb (ppm)	FUS ICP-MS	1.96	2.01
Lu (ppm)	FUS ICP-MS	0.304	0.298
Hf (ppm)	FUS ICP-MS	3.1	4.2
Ta (ppm)	FUS ICP-MS	2.06	2.60
W (ppm)	FUS ICP-MS	0.9	-0.5
Tl (ppm)	FUS ICP-MS	0.49	0.21
Pb (ppm)	FUS ICP-MS	-5	-5
Bi (ppm)	FUS ICP-MS	-0.1	-0.1
Th (ppm)	FUS ICP-MS	5.0	3.55
U (ppm)	FUS ICP-MS	0.95	0.90

* Total iron reported as Fe₂O₃.

Notes:

Samples were analyzed at Activation Laboratories Ltd., Ancaster, Ontario, Canada.

Samples were crushed and then pulverized in a mild steel mill.

Major oxides and most minor elements were determined by X-Ray Fluorescence (XRF) on a fusion sample containing a lithium metaborate/tetraborate flux, in 2007.

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