



1020 Cordova St. East Vancouver BC V6A 4A3 Canada

Acme Analytical Laboratories (Vancouver) Ltd.

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Client: Geological Survey of Canada
Room 659 - 601 Booth St.
Ottawa ON K1A 0E8 Canada

Submitted By: Alexandre Zagorevski
Receiving Lab: Canada-Vancouver
Received: November 12, 2011
Report Date: January 18, 2012
Page: 1 of 3

CERTIFICATE OF ANALYSIS

VAN11006138.1

CLIENT JOB INFORMATION

Project: Stikinia
Shipment ID:
P.O. Number: 3000455524
Number of Samples:

SAMPLE DISPOSAL

RTRN-PLP Return
RTRN-RJT Return

Acme does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: Geological Survey of Canada - Invoice Receipt
615 Booth St.,
Mailbox SS0-1-A 1st Floor
Ottawa ON K1A 0E9
Canada

CC:

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Table with 6 columns: Method Code, Number of Samples, Code Description, Test Wgt (g), Report Status, Lab. Rows include R200-250, XWSH, and 4A4B.

ADDITIONAL COMMENTS



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted. \*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



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Page: 2 of 3 Part 1

CERTIFICATE OF ANALYSIS

VAN11006138.1

Method	WGHT	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	
Analyte	Wgt	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	MgO	CaO	Na <sub>2</sub> O	K <sub>2</sub> O	TiO <sub>2</sub>	P <sub>2</sub> O <sub>5</sub>	MnO	Cr <sub>2</sub> O <sub>3</sub>	Ni	Sc	LOI	Sum	Ba	Be	Co	Cs	
Unit	kg	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	%	%	ppm	ppm	ppm	ppm	
MDL	0.01	0.01	0.01	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.002	20	1	-5.1	0.01	1	1	0.2	0.1	
ZE-11 551	Rock	0.36	74.32	12.11	3.51	0.09	0.14	3.70	5.11	0.27	0.03	0.06	<0.002	<20	1	0.5	99.85	205	4	0.5	0.9
ZE-11 641	Rock	0.37	66.86	15.87	3.86	1.27	3.70	3.81	2.92	0.43	0.14	0.08	<0.002	<20	6	0.7	99.69	1794	<1	5.7	2.3
ZE-11 639	Rock	0.20	53.96	17.12	7.11	2.94	3.94	4.13	2.16	0.60	0.27	0.14	<0.002	<20	11	7.1	99.52	2760	<1	10.2	2.2
ZE-11 569	Rock	0.23	54.62	20.83	5.78	3.65	6.25	5.74	0.58	0.45	0.12	0.14	0.005	<20	13	1.7	99.82	272	<1	14.0	0.5
ZE-11 652	Rock	0.31	64.96	13.61	8.05	1.17	0.93	5.34	2.99	1.02	0.21	0.10	<0.002	<20	7	1.3	99.66	735	4	7.2	0.3
ZE-11 633	Rock	0.11	79.96	7.32	4.21	0.01	0.06	1.78	3.08	0.21	0.02	0.06	<0.002	<20	<1	2.5	99.16	18	7	<0.2	1.0
ZE-11 643B	Rock	0.47	46.91	19.32	10.61	6.72	4.96	4.54	0.71	0.96	0.28	0.24	0.005	<20	25	4.5	99.73	393	<1	29.6	0.4
ZE-11 636A	Rock	0.12	73.29	9.67	7.44	0.07	0.89	2.38	3.99	0.32	0.02	0.13	0.003	<20	<1	1.2	99.45	66	7	1.1	1.1
ZE-11 643A	Rock	0.29	54.70	14.77	5.65	2.02	8.09	0.91	2.30	0.50	0.13	0.15	0.011	23	15	10.5	99.70	1441	3	15.1	1.4
ZE-11 620	Rock	0.26	44.90	16.56	9.03	5.73	7.43	2.69	3.85	0.46	0.32	0.16	<0.002	<20	29	8.4	99.52	1880	<1	29.0	4.7
ZE-11 556A	Rock	0.59	77.73	11.59	1.54	0.07	0.11	2.64	5.47	0.08	<0.01	0.03	<0.002	<20	<1	0.7	99.93	39	11	0.5	1.4
ZE-11 642	Rock	0.33	53.95	16.60	7.62	3.58	8.55	4.11	2.32	0.55	0.46	0.21	<0.002	<20	24	1.6	99.54	2024	<1	18.9	6.8
ZE-11 638	Rock	0.19	64.41	14.40	6.71	2.04	4.22	3.29	2.17	0.76	0.20	0.14	<0.002	<20	21	1.4	99.69	1314	<1	12.5	0.7
ZE-11 636	Rock	0.40	51.67	17.30	10.70	3.81	7.24	1.29	3.28	0.53	0.39	0.16	<0.002	<20	39	3.2	99.53	2319	<1	17.4	7.9
ZE-11 554	Rock	0.28	74.31	11.25	5.14	0.16	0.09	0.13	5.52	0.30	0.02	0.06	<0.002	<20	<1	2.5	99.45	1468	8	<0.2	1.6
ZE-11 567	Rock	0.19	60.59	17.36	5.36	2.05	6.91	4.41	0.39	0.67	0.23	0.11	<0.002	<20	11	1.7	99.80	526	1	11.9	0.1
ZE-11 556B	Rock	0.30	39.35	17.18	13.45	3.15	11.80	2.40	0.77	2.50	0.47	0.20	0.008	33	25	8.4	99.69	458	6	45.7	2.3
ZE-11 606A	Rock	0.26	72.28	11.33	6.79	0.06	0.08	0.15	7.54	0.39	0.04	0.13	<0.002	<20	<1	1.0	99.79	52	2	<0.2	0.5
ZE-11 577	Rock	0.22	62.84	16.56	5.31	1.75	5.61	3.44	2.33	0.55	0.19	0.14	<0.002	<20	9	0.9	99.66	1911	1	8.5	1.1
ZE-11 610B	Rock	0.33	79.15	9.89	2.87	<0.01	0.06	4.03	2.24	0.20	<0.01	<0.01	<0.002	<20	<1	1.3	99.80	38	5	<0.2	0.7
ZE-11 586	Rock	0.28	61.82	14.30	8.84	0.36	2.13	5.10	5.58	0.71	0.14	0.24	<0.002	<20	5	0.6	99.86	335	2	2.1	0.6
ZE-11 594A	Rock	0.23	52.37	17.82	8.06	4.60	4.05	5.08	2.69	0.50	0.38	0.19	0.002	<20	32	3.9	99.62	1599	<1	16.7	2.3
ZE-11 594B	Rock	0.16	49.83	18.08	8.02	5.08	4.65	4.19	3.36	0.50	0.53	0.17	<0.002	<20	27	5.2	99.60	1733	1	15.8	2.8
ZE-11 600	Rock	0.21	48.65	17.68	9.83	4.79	6.13	3.24	3.60	0.61	0.43	0.17	0.003	<20	30	4.5	99.68	890	1	27.8	2.0
ZE-11 610A	Rock	0.21	75.53	10.85	4.27	0.02	0.16	1.46	6.16	0.25	0.01	0.08	<0.002	<20	<1	0.9	99.72	28	5	<0.2	1.2
MMI-11-11-6B	Rock	0.10	59.80	15.44	9.03	0.28	0.60	4.77	5.74	1.05	0.32	0.22	<0.002	<20	11	2.5	99.71	1350	6	6.0	2.2
MMI-11-12-6	Rock	0.13	49.07	16.59	15.03	4.77	4.59	3.73	1.64	1.31	0.27	0.25	<0.002	<20	35	2.4	99.68	842	<1	28.6	2.1
MMI-11-14-1	Rock	0.16	62.34	15.73	5.15	1.78	3.27	5.61	1.08	0.61	0.24	0.09	<0.002	<20	9	3.9	99.77	915	3	6.8	0.3
MMI-11-14-2	Rock	0.19	48.07	18.28	10.12	5.44	5.77	4.50	0.46	1.20	0.34	0.15	0.008	<20	23	5.3	99.63	1165	<1	26.7	1.2
MMI-11-14-3	Rock	0.26	62.89	13.96	6.56	2.68	4.12	3.16	0.98	1.05	0.17	0.14	0.003	<20	15	4.1	99.83	472	2	13.0	0.3

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 Room 659 - 601 Booth St.  
 Ottawa ON K1A 0E8 Canada

Project: Stikinia  
 Report Date: January 18, 2012

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CERTIFICATE OF ANALYSIS

VAN11006138.1

Method	Analyte	4A-4B																			
		Ga	Hf	Nb	Rb	Sn	Sr	Ta	Th	U	V	W	Zr	Y	La	Ce	Pr	Nd	Sm	Eu	Gd
Unit		ppm																			
MDL		0.5	0.1	0.1	0.1	1	0.5	0.1	0.2	0.1	8	0.5	0.1	0.1	0.1	0.1	0.02	0.3	0.05	0.02	0.05
ZE-11 551	Rock	34.1	15.2	57.2	115.7	6	18.7	3.7	11.2	4.8	<8	1.7	576.0	71.3	60.3	126.6	16.74	66.1	13.92	0.95	13.17
ZE-11 641	Rock	16.8	3.4	8.1	70.8	1	544.3	0.8	11.1	4.2	59	<0.5	107.0	12.1	24.6	42.0	4.98	17.9	3.16	0.88	2.65
ZE-11 639	Rock	16.3	2.5	5.1	48.7	2	617.3	0.6	6.0	2.8	149	<0.5	86.1	17.7	20.8	39.5	5.14	20.5	4.63	1.26	3.86
ZE-11 569	Rock	18.1	0.8	1.5	12.4	<1	601.9	0.2	0.3	0.2	102	0.6	29.8	7.5	3.5	7.5	1.06	5.0	1.21	0.66	1.16
ZE-11 652	Rock	33.1	24.6	101.6	45.7	5	51.4	6.5	10.5	3.6	51	1.8	925.7	102.5	84.1	174.0	23.15	91.4	20.66	5.38	19.92
ZE-11 633	Rock	22.3	83.4	301.8	120.0	15	5.7	21.1	56.6	22.1	<8	3.7	3110	453.3	432.7	844.6	106.6	420.3	86.26	4.11	86.40
ZE-11 643B	Rock	17.8	1.9	2.7	17.3	<1	421.4	0.3	1.7	0.6	261	<0.5	55.8	16.3	11.9	24.3	3.45	15.2	3.46	1.16	3.51
ZE-11 636A	Rock	50.6	50.0	205.1	189.4	21	44.9	12.6	37.4	13.4	47	2.0	2016	254.7	212.2	448.0	51.86	206.9	44.86	2.62	47.19
ZE-11 643A	Rock	15.8	2.5	5.6	63.0	1	513.7	0.4	3.0	1.4	155	0.6	75.5	11.3	11.0	21.9	2.29	9.8	2.35	0.77	3.18
ZE-11 620	Rock	12.9	1.0	3.5	71.1	<1	876.7	0.3	0.9	0.4	258	1.1	26.1	12.6	6.1	11.9	1.68	7.4	1.99	0.70	1.95
ZE-11 556A	Rock	23.2	8.1	77.2	206.4	6	29.2	6.4	30.5	13.6	<8	2.2	147.7	71.2	14.1	74.1	3.68	13.3	4.01	0.06	5.69
ZE-11 642	Rock	15.3	1.3	8.4	51.5	<1	952.3	0.7	2.0	1.0	274	<0.5	40.7	15.1	11.5	19.7	2.42	9.4	2.41	0.81	2.51
ZE-11 638	Rock	19.2	3.9	4.5	41.5	<1	652.9	0.2	2.4	1.1	125	0.7	126.4	32.3	13.9	30.8	4.49	18.9	5.06	1.42	5.01
ZE-11 636	Rock	16.2	1.4	6.7	86.0	<1	725.4	0.5	3.1	1.1	307	1.2	32.8	12.0	14.9	24.5	3.02	12.9	2.61	0.62	2.33
ZE-11 554	Rock	36.8	42.3	170.9	185.8	14	364.6	11.2	28.2	11.6	<8	1.4	1627	166.0	101.7	216.9	28.36	107.2	23.57	1.04	23.11
ZE-11 567	Rock	16.6	3.5	7.3	5.8	1	519.3	0.6	4.4	1.7	112	1.0	122.0	22.0	17.6	36.1	4.55	17.4	3.92	1.18	3.53
ZE-11 556B	Rock	21.6	3.6	20.9	12.5	2	815.7	1.5	1.7	0.5	267	1.2	162.0	29.4	21.4	44.6	6.15	28.3	6.19	2.06	6.06
ZE-11 606A	Rock	47.0	30.1	131.9	231.9	11	8.5	8.5	18.2	6.2	<8	0.9	1081	108.4	64.9	121.6	18.08	68.7	15.08	1.19	14.39
ZE-11 577	Rock	17.6	3.3	8.2	55.4	1	446.2	0.6	5.6	2.1	96	<0.5	113.4	20.3	20.1	39.6	4.90	20.6	3.83	1.10	3.54
ZE-11 610B	Rock	38.2	28.0	120.6	98.3	9	7.9	8.3	25.7	10.0	<8	<0.5	1096	110.0	40.4	80.0	9.60	34.8	7.83	0.31	10.30
ZE-11 586	Rock	32.6	9.6	49.4	64.3	3	37.4	3.4	5.8	2.2	<8	0.6	368.4	55.8	47.6	101.5	13.58	54.4	11.95	2.38	11.21
ZE-11 594A	Rock	17.2	1.1	8.3	43.7	<1	606.7	0.5	1.8	1.0	242	<0.5	35.7	13.9	9.3	16.2	2.04	8.3	2.03	0.71	1.98
ZE-11 594B	Rock	18.6	1.7	9.9	58.9	<1	588.5	0.6	3.0	1.3	239	<0.5	42.7	13.6	12.8	20.8	2.34	9.8	2.04	0.71	2.13
ZE-11 600	Rock	15.1	1.3	5.7	75.4	<1	568.6	0.4	1.3	0.5	276	<0.5	35.7	14.7	8.3	15.4	2.14	11.4	2.30	0.88	2.42
ZE-11 610A	Rock	35.0	31.5	139.7	255.7	11	8.8	9.2	26.8	8.8	<8	<0.5	1211	148.9	190.2	311.3	42.22	155.6	29.17	0.94	27.06
MMI-11-11-6B	Rock	30.4	12.1	55.4	102.6	8	142.4	3.4	8.2	3.2	22	1.2	471.4	63.1	48.1	106.5	13.80	55.2	12.54	3.14	11.98
MMI-11-12-6	Rock	20.6	3.3	3.9	36.3	1	300.6	0.3	1.7	1.0	329	<0.5	109.4	29.9	11.8	25.2	3.90	20.0	4.89	1.47	5.08
MMI-11-14-1	Rock	15.8	6.2	15.7	27.6	1	395.4	0.8	9.0	4.0	72	<0.5	217.9	21.8	32.2	62.3	7.53	27.9	4.62	1.08	4.42
MMI-11-14-2	Rock	16.7	2.6	5.8	10.5	1	750.4	0.3	1.6	0.7	233	<0.5	80.6	21.5	14.7	31.4	4.45	20.9	4.51	1.39	4.38
MMI-11-14-3	Rock	16.9	2.3	5.4	19.0	<1	326.9	0.4	1.5	1.7	195	0.6	71.9	18.9	8.7	16.6	2.58	11.5	2.92	0.83	2.94

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Project: Stikinia  
 Report Date: January 18, 2012

Page: 2 of 3 Part 3

CERTIFICATE OF ANALYSIS

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Method	Analyte	Unit	MDL	4A-4B Tb	4A-4B Dy	4A-4B Ho	4A-4B Er	4A-4B Tm	4A-4B Yb	4A-4B 2A Lu	Leco 2A TOT/C	Leco TOT/S	1DX Mo	1DX Cu	1DX Pb	1DX Zn	1DX Ni	1DX As	1DX Cd	1DX Sb	1DX Bi	1DX Ag	1DX Au
				ppm	%	%	ppm	ppb															
				0.01	0.05	0.02	0.03	0.01	0.05	0.01	0.02	0.02	0.1	0.1	0.1	1	0.1	0.5	0.1	0.1	0.1	0.1	0.5
ZE-11 551	Rock			2.19	13.56	2.64	7.38	1.17	7.23	1.07	0.03	<0.02	0.5	2.4	5.2	149	1.2	<0.5	0.3	0.3	0.1	<0.1	<0.5
ZE-11 641	Rock			0.37	2.07	0.42	1.13	0.18	1.24	0.20	0.09	<0.02	0.2	1.6	2.4	50	2.5	0.5	<0.1	<0.1	<0.1	<0.1	0.9
ZE-11 639	Rock			0.55	3.31	0.68	1.97	0.30	1.91	0.29	1.29	0.05	<0.1	1.0	3.8	84	1.4	<0.5	<0.1	<0.1	<0.1	<0.1	1.1
ZE-11 569	Rock			0.19	1.25	0.27	0.71	0.13	0.87	0.12	<0.02	<0.02	0.1	24.8	1.2	39	13.6	<0.5	<0.1	<0.1	<0.1	<0.1	1.0
ZE-11 652	Rock			3.21	19.55	3.63	10.25	1.57	9.54	1.41	<0.02	<0.02	0.3	4.5	2.9	12	0.6	<0.5	<0.1	<0.1	<0.1	<0.1	<0.5
ZE-11 633	Rock			13.29	86.69	15.87	45.55	6.39	41.47	5.50	0.06	1.53	26.2	11.3	77.8	675	0.7	2777	1.5	22.1	0.4	0.4	1.2
ZE-11 643B	Rock			0.52	3.22	0.67	1.78	0.27	1.75	0.26	0.08	<0.02	0.1	44.4	1.2	120	21.7	4.0	<0.1	0.9	<0.1	<0.1	0.5
ZE-11 636A	Rock			8.05	45.82	10.45	27.18	4.28	25.90	3.86	0.19	<0.02	0.4	4.2	20.4	413	0.4	1.8	0.9	0.5	0.3	<0.1	*
ZE-11 643A	Rock			0.36	2.39	0.47	1.50	0.21	1.23	0.29	2.24	<0.02	0.1	21.5	1.4	51	18.9	<0.5	<0.1	<0.1	<0.1	<0.1	1.3
ZE-11 620	Rock			0.34	2.11	0.41	1.24	0.19	1.38	0.23	1.38	0.05	0.2	214.0	1.4	63	19.3	0.7	<0.1	<0.1	<0.1	0.4	2.7
ZE-11 556A	Rock			1.38	10.19	2.26	7.17	1.16	8.36	1.14	<0.02	<0.02	0.3	11.8	11.3	65	0.8	4.3	<0.1	0.1	0.2	0.2	0.5
ZE-11 642	Rock			0.42	2.60	0.56	1.48	0.24	1.55	0.26	0.15	1.13	0.3	121.8	2.8	34	7.1	2.5	<0.1	0.4	<0.1	0.1	3.3
ZE-11 638	Rock			0.86	5.73	1.09	3.49	0.50	3.57	0.53	0.26	<0.02	0.1	72.0	1.7	74	8.2	2.6	<0.1	<0.1	<0.1	0.1	1.2
ZE-11 636	Rock			0.37	2.02	0.43	1.36	0.20	1.38	0.23	<0.02	<0.02	0.3	12.6	2.3	66	3.5	8.7	<0.1	1.4	<0.1	<0.1	2.8
ZE-11 554	Rock			4.13	29.18	5.88	18.38	2.79	18.78	2.63	<0.02	0.05	3.8	6.3	26.1	73	0.2	1.7	<0.1	<0.1	0.1	<0.1	3.2
ZE-11 567	Rock			0.60	3.87	0.75	2.27	0.37	2.21	0.36	<0.02	0.92	0.3	158.7	1.6	18	3.0	1.1	<0.1	<0.1	0.1	0.1	1.5
ZE-11 556B	Rock			0.90	5.34	0.99	2.75	0.38	2.38	0.38	1.52	0.10	1.0	19.4	2.1	111	44.2	6.6	<0.1	0.5	<0.1	<0.1	2.0
ZE-11 606A	Rock			2.67	19.48	3.91	12.05	1.86	12.45	1.81	<0.02	<0.02	9.2	2.1	14.7	55	0.6	0.6	<0.1	0.2	0.1	0.1	<0.5
ZE-11 577	Rock			0.55	3.36	0.73	2.08	0.32	2.45	0.33	<0.02	<0.02	0.2	10.2	2.4	38	1.7	<0.5	<0.1	<0.1	<0.1	<0.1	<0.5
ZE-11 610B	Rock			2.19	17.49	3.84	11.98	1.86	12.56	1.76	<0.02	0.29	1.0	2.0	18.1	39	1.2	19.8	<0.1	0.3	0.3	0.2	3.7
ZE-11 586	Rock			1.78	10.75	1.97	5.86	0.86	5.64	0.87	<0.02	<0.02	0.7	6.4	7.4	136	1.9	2.3	0.3	0.2	<0.1	<0.1	0.5
ZE-11 594A	Rock			0.35	2.26	0.51	1.58	0.25	1.73	0.25	0.20	0.66	0.2	124.6	4.7	56	6.3	5.0	0.1	0.2	<0.1	<0.1	4.9
ZE-11 594B	Rock			0.36	2.42	0.46	1.48	0.24	1.65	0.25	0.59	0.30	0.1	71.6	4.6	73	6.7	6.0	<0.1	0.3	<0.1	<0.1	7.1
ZE-11 600	Rock			0.39	2.53	0.51	1.56	0.25	1.71	0.25	0.52	<0.02	0.3	134.4	1.3	64	11.2	1.8	<0.1	0.3	<0.1	<0.1	5.7
ZE-11 610A	Rock			4.07	26.62	4.97	14.34	2.21	14.57	2.00	<0.02	0.17	0.1	6.7	32.5	80	0.3	6.2	0.4	0.1	<0.1	0.1	1.1
MMI-11-11-6B	Rock			1.91	12.70	2.29	6.47	0.95	6.05	0.89	0.04	0.04	4.0	6.0	7.8	160	4.0	<0.5	0.4	0.5	<0.1	<0.1	<0.5
MMI-11-12-6	Rock			0.82	5.80	1.04	3.12	0.44	3.27	0.44	<0.02	<0.02	0.3	192.9	1.3	124	5.8	0.5	0.2	<0.1	<0.1	0.2	3.1
MMI-11-14-1	Rock			0.61	3.71	0.70	2.20	0.35	2.33	0.35	0.60	<0.02	0.5	2.4	1.0	50	5.8	0.8	<0.1	<0.1	<0.1	<0.1	1.0
MMI-11-14-2	Rock			0.65	3.98	0.79	2.27	0.34	2.24	0.31	0.39	0.02	0.1	35.6	1.1	74	28.3	1.1	<0.1	0.2	<0.1	<0.1	2.0
MMI-11-14-3	Rock			0.50	2.97	0.65	1.97	0.32	1.91	0.26	0.60	0.06	1.8	50.0	2.7	43	19.0	9.4	<0.1	0.1	<0.1	0.1	<0.5

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.



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Project: Stikinia  
 Report Date: January 18, 2012

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CERTIFICATE OF ANALYSIS

VAN11006138.1

Method	1DX	1DX	1DX	
Analyte	Hg	Tl	Se	
Unit	ppm	ppm	ppm	
MDL	0.01	0.1	0.5	
ZE-11 551	Rock	<0.01	<0.1	0.7
ZE-11 641	Rock	<0.01	0.2	<0.5
ZE-11 639	Rock	<0.01	<0.1	<0.5
ZE-11 569	Rock	<0.01	<0.1	<0.5
ZE-11 652	Rock	<0.01	<0.1	<0.5
ZE-11 633	Rock	<0.01	<0.1	2.5
ZE-11 643B	Rock	<0.01	<0.1	0.6
ZE-11 636A	Rock	<0.01	<0.1	0.6
ZE-11 643A	Rock	<0.01	<0.1	<0.5
ZE-11 620	Rock	<0.01	<0.1	<0.5
ZE-11 556A	Rock	<0.01	<0.1	<0.5
ZE-11 642	Rock	<0.01	0.3	<0.5
ZE-11 638	Rock	<0.01	0.1	<0.5
ZE-11 636	Rock	<0.01	<0.1	0.5
ZE-11 554	Rock	<0.01	<0.1	1.6
ZE-11 567	Rock	<0.01	<0.1	<0.5
ZE-11 556B	Rock	<0.01	<0.1	0.6
ZE-11 606A	Rock	<0.01	<0.1	0.6
ZE-11 577	Rock	<0.01	<0.1	0.5
ZE-11 610B	Rock	<0.01	<0.1	3.1
ZE-11 586	Rock	<0.01	<0.1	0.8
ZE-11 594A	Rock	<0.01	<0.1	0.6
ZE-11 594B	Rock	0.01	<0.1	<0.5
ZE-11 600	Rock	<0.01	<0.1	0.7
ZE-11 610A	Rock	<0.01	<0.1	<0.5
MMI-11-11-6B	Rock	<0.01	0.1	0.8
MMI-11-12-6	Rock	<0.01	0.1	<0.5
MMI-11-14-1	Rock	<0.01	<0.1	<0.5
MMI-11-14-2	Rock	<0.01	<0.1	<0.5
MMI-11-14-3	Rock	<0.01	<0.1	0.8



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CERTIFICATE OF ANALYSIS

VAN11006138.1

Method	WGHT	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B												
Analyte	Wgt	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO	Cr2O3	Ni	Sc	LOI	Sum	Ba	Be	Co	Cs	
Unit	kg	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	%	%	ppm	ppm	ppm	ppm	
MDL	0.01	0.01	0.01	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.002	20	1	-5.1	0.01	1	1	0.2	0.1	
MMI-11-14-5	Rock	0.30	55.74	17.04	7.67	3.34	5.22	2.98	2.57	0.83	0.35	0.15	<0.002	<20	17	3.7	99.60	1880	1	14.7	0.4
MMI-11-15-15A	Rock	0.39	56.90	16.77	8.34	2.21	4.09	3.62	4.78	0.44	0.35	0.14	<0.002	<20	29	1.8	99.45	2984	2	13.3	2.1
MMI-11-15-1A	Rock	0.11	78.39	7.82	7.38	0.01	0.04	0.14	4.32	0.26	0.01	0.12	<0.002	<20	<1	1.2	99.70	16	4	<0.2	0.5
MMI-11-15-1C	Rock	0.17	76.15	8.94	6.72	0.02	0.02	0.14	5.55	0.30	0.02	0.13	<0.002	<20	<1	1.7	99.64	11	2	0.3	0.9
MMI-11-18-7	Rock	0.21	55.34	19.62	6.35	3.03	4.47	3.70	2.91	0.72	0.28	0.11	0.010	33	21	3.2	99.69	966	1	14.4	5.1
ZE-11 553	Rock	0.29	58.69	17.79	8.44	1.86	4.76	2.19	3.99	0.72	0.42	0.10	<0.002	<20	25	0.8	99.82	822	<1	16.3	11.4
ZE-11 561	Rock	0.21	61.40	14.29	8.14	0.08	2.28	2.96	6.87	0.62	0.11	0.23	<0.002	<20	7	2.8	99.83	614	3	0.8	5.5
ZE-11 568	Rock	0.18	53.72	18.25	7.24	6.92	7.93	2.87	0.18	0.43	0.10	0.19	0.009	31	25	2.0	99.81	71	<1	23.7	0.3
ZE-11 575	Rock	0.19	61.23	16.90	5.83	1.79	6.17	3.84	1.98	0.61	0.21	0.13	<0.002	<20	10	1.0	99.65	1917	<1	10.3	0.7
ZE-11 585	Rock	0.22	52.04	17.93	7.58	2.89	5.80	5.90	0.69	0.67	0.26	0.15	<0.002	<20	13	5.9	99.79	245	<1	17.3	0.8
ZE-11 588	Rock	0.26	49.41	16.33	9.15	5.49	7.74	3.14	3.25	0.52	0.41	0.14	0.010	31	37	3.9	99.45	1842	<1	31.5	2.3
ZE-11 592	Rock	0.37	47.28	15.12	6.98	2.86	11.92	2.50	3.41	0.54	0.37	0.20	<0.002	<20	23	8.5	99.62	1835	<1	16.6	1.9
ZE-11 606B	Rock	0.15	74.70	10.44	6.09	0.09	0.09	0.17	6.73	0.36	0.03	0.12	<0.002	<20	<1	1.0	99.83	55	2	0.5	0.7
ZE-11 608	Rock	0.20	75.55	10.80	4.75	0.02	0.12	0.28	5.86	0.25	<0.01	0.06	<0.002	<20	<1	1.9	99.58	13	1	0.5	2.8
ZE-11 612A	Rock	0.09	89.17	2.55	1.43	1.48	2.20	0.03	0.43	0.10	0.04	0.02	0.003	<20	7	2.5	99.98	233	<1	2.3	1.5
ZE-11 612B	Rock	0.28	47.78	16.95	9.71	3.15	6.48	5.04	1.40	1.15	0.40	0.15	0.003	<20	17	7.1	99.28	4853	<1	24.3	3.5
ZE-11 613	Rock	0.38	55.18	16.34	6.00	2.19	5.63	2.42	4.54	0.65	0.22	0.18	0.002	<20	12	6.3	99.64	1953	3	8.0	9.3
ZE-11 621	Rock	0.13	50.82	16.95	8.28	4.55	6.54	4.70	2.40	1.21	0.62	0.13	0.008	31	17	3.5	99.68	772	1	20.4	0.3



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**CERTIFICATE OF ANALYSIS**

**VAN11006138.1**

Method	Analyte	4A-4B																			
		Ga	Hf	Nb	Rb	Sn	Sr	Ta	Th	U	V	W	Zr	Y	La	Ce	Pr	Nd	Sm	Eu	Gd
Unit		ppm																			
MDL		0.5	0.1	0.1	0.1	1	0.5	0.1	0.2	0.1	8	0.5	0.1	0.1	0.1	0.02	0.3	0.05	0.02	0.05	
MMI-11-14-5	Rock	17.4	3.4	9.1	43.8	<1	610.9	0.6	4.9	2.0	165	<0.5	126.6	19.5	24.0	48.0	5.91	23.6	4.45	1.20	4.15
MMI-11-15-15A	Rock	17.5	1.4	5.9	90.7	1	844.8	0.4	3.0	1.2	261	1.1	36.9	15.2	12.7	19.5	2.41	10.4	2.30	0.73	2.24
MMI-11-15-1A	Rock	36.8	37.3	161.6	148.0	13	4.8	11.5	25.5	6.1	<8	0.8	1442	143.8	126.1	201.4	34.82	130.6	28.88	1.60	26.74
MMI-11-15-1C	Rock	43.5	43.2	221.0	212.9	15	3.7	13.4	28.1	11.7	<8	2.2	1872	200.7	71.3	154.0	20.62	84.7	24.95	1.69	30.35
MMI-11-18-7	Rock	21.1	3.9	8.4	98.4	1	891.1	0.6	4.7	2.1	168	0.7	134.5	29.2	18.2	38.0	5.01	19.5	4.80	1.32	4.83
ZE-11 553	Rock	16.5	1.8	6.6	127.6	<1	229.4	0.4	1.7	1.0	212	0.5	69.4	17.6	8.9	17.7	2.27	9.9	2.46	0.76	2.73
ZE-11 561	Rock	28.9	8.4	45.9	97.5	3	36.1	2.5	5.9	1.3	<8	1.0	359.2	48.0	60.3	99.5	14.56	55.5	10.99	2.54	9.83
ZE-11 568	Rock	17.8	1.1	2.1	4.0	<1	417.1	0.1	0.2	0.1	137	<0.5	36.7	12.4	3.0	7.1	0.99	4.4	1.25	0.57	1.59
ZE-11 575	Rock	18.9	3.4	7.1	43.9	<1	598.7	0.4	4.0	1.7	127	<0.5	118.7	21.8	18.4	35.6	4.39	17.6	3.74	1.15	3.66
ZE-11 585	Rock	16.9	2.2	3.7	19.9	<1	568.2	0.2	1.1	0.6	163	<0.5	58.9	16.4	8.2	18.4	2.54	12.4	2.87	0.93	2.96
ZE-11 588	Rock	15.2	1.1	6.3	53.1	<1	1543	0.3	1.2	0.7	293	<0.5	37.1	13.1	7.9	14.6	1.93	8.7	2.04	0.65	2.20
ZE-11 592	Rock	16.1	1.4	7.1	63.7	<1	622.4	0.4	1.6	0.8	224	<0.5	47.8	16.4	9.6	16.9	2.11	8.8	2.07	0.69	2.36
ZE-11 606B	Rock	41.7	22.7	143.0	243.3	11	7.8	7.4	13.8	3.3	<8	0.9	949.3	98.2	44.1	93.0	11.12	44.1	9.74	0.85	11.23
ZE-11 608	Rock	42.1	45.2	200.0	220.2	17	5.4	12.9	27.1	10.9	<8	1.5	1893	199.1	198.5	398.4	52.86	202.5	40.48	1.85	36.90
ZE-11 612A	Rock	3.9	1.0	2.1	13.2	<1	44.7	0.2	0.6	0.8	25	<0.5	30.1	10.5	7.8	12.2	2.17	9.2	2.05	0.51	2.14
ZE-11 612B	Rock	19.2	2.3	12.2	43.2	<1	567.8	0.7	2.6	1.4	275	1.0	80.4	16.9	13.8	26.5	3.28	13.6	3.30	1.14	3.29
ZE-11 613	Rock	17.2	4.7	10.9	131.9	2	417.5	0.7	13.0	3.8	104	1.9	184.0	26.3	30.8	61.2	7.55	29.4	5.78	1.39	4.91
ZE-11 621	Rock	16.5	3.3	13.0	32.3	1	713.5	0.7	2.4	1.1	202	<0.5	126.1	24.9	29.3	64.5	8.25	32.9	5.76	1.73	4.82



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CERTIFICATE OF ANALYSIS

VAN11006138.1

Method	Analyte	Unit	MDL	4A-4B Tb	4A-4B Dy	4A-4B Ho	4A-4B Er	4A-4B Tm	4A-4B Yb	4A-4B Lu	2A Leco TOT/C	2A Leco TOT/S	1DX Mo	1DX Cu	1DX Pb	1DX Zn	1DX Ni	1DX As	1DX Cd	1DX Sb	1DX Bi	1DX Ag	1DX Au
				ppm	%	%	ppm	ppb															
MMI-11-14-5	Rock			0.59	3.40	0.66	1.84	0.30	2.05	0.31	0.31	0.07	2.5	30.7	2.4	72	7.8	1.1	0.1	<0.1	<0.1	0.2	<0.5
MMI-11-15-15A	Rock			0.35	2.14	0.45	1.38	0.24	1.61	0.23	0.18	<0.02	0.5	217.3	7.3	48	1.9	16.0	0.1	0.2	0.1	<0.1	8.7
MMI-11-15-1A	Rock			4.43	28.34	5.39	14.39	2.31	15.57	2.16	<0.02	<0.02	1.0	25.0	45.0	77	1.0	5.0	<0.1	<0.1	0.3	0.3	0.9
MMI-11-15-1C	Rock			5.66	34.95	7.33	21.56	3.19	20.71	3.01	<0.02	0.03	3.1	2.7	35.8	81	0.7	8.3	<0.1	0.1	0.3	0.1	<0.5
MMI-11-18-7	Rock			0.80	4.71	0.94	3.04	0.48	3.09	0.47	0.40	<0.02	0.2	13.8	4.5	53	28.9	0.6	<0.1	0.4	<0.1	<0.1	<0.5
ZE-11 553	Rock			0.46	3.02	0.63	1.79	0.30	1.90	0.30	<0.02	<0.02	0.3	14.5	2.3	40	8.7	<0.5	<0.1	<0.1	<0.1	<0.1	0.7
ZE-11 561	Rock			1.65	9.21	1.77	4.96	0.77	5.11	0.80	0.45	<0.02	1.3	2.8	10.9	165	0.3	2.9	0.3	0.8	<0.1	<0.1	<0.5
ZE-11 568	Rock			0.29	1.84	0.41	1.18	0.19	1.22	0.21	<0.02	<0.02	<0.1	40.5	0.6	36	15.6	<0.5	<0.1	<0.1	<0.1	<0.1	<0.5
ZE-11 575	Rock			0.61	3.78	0.76	2.22	0.34	2.43	0.38	<0.02	<0.02	0.2	7.8	2.4	24	1.4	1.5	<0.1	<0.1	<0.1	<0.1	1.0
ZE-11 585	Rock			0.50	3.27	0.60	1.90	0.28	1.81	0.27	0.93	<0.02	0.1	49.7	1.1	72	5.6	14.0	<0.1	0.1	<0.1	<0.1	<0.5
ZE-11 588	Rock			0.37	2.26	0.48	1.42	0.21	1.54	0.22	0.36	<0.02	0.5	120.5	1.0	53	21.8	1.2	<0.1	0.2	<0.1	<0.1	1.7
ZE-11 592	Rock			0.41	2.65	0.58	1.63	0.28	1.68	0.27	1.93	0.60	1.3	85.9	4.2	59	4.7	3.2	<0.1	0.6	<0.1	<0.1	2.5
ZE-11 606B	Rock			2.37	16.32	3.59	11.17	1.66	10.73	1.65	0.02	<0.02	7.5	1.1	6.8	52	0.3	0.7	<0.1	0.2	0.1	<0.1	1.6
ZE-11 608	Rock			5.95	35.13	6.90	19.92	2.96	19.57	2.64	0.04	<0.02	7.5	2.4	36.4	133	1.1	1.1	0.3	0.3	0.2	<0.1	3.2
ZE-11 612A	Rock			0.35	2.00	0.41	1.09	0.15	1.01	0.15	0.66	0.02	0.2	4.9	5.9	24	10.3	2.2	0.4	0.2	<0.1	<0.1	1.0
ZE-11 612B	Rock			0.54	3.07	0.61	1.57	0.24	1.57	0.23	1.20	0.10	0.3	27.5	2.3	65	11.2	1.5	<0.1	0.2	<0.1	<0.1	2.1
ZE-11 613	Rock			0.76	4.21	0.90	2.59	0.42	2.82	0.42	1.06	<0.02	0.4	0.5	7.6	70	1.9	2.6	0.2	0.4	<0.1	<0.1	1.3
ZE-11 621	Rock			0.74	4.04	0.84	2.33	0.35	2.30	0.36	0.30	0.10	0.6	40.5	0.8	96	23.3	1.8	0.2	0.2	<0.1	<0.1	0.6



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Project: Stikinia

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# CERTIFICATE OF ANALYSIS

# VAN11006138.1

Method	1DX	1DX	1DX	
Analyte	Hg	Tl	Se	
Unit	ppm	ppm	ppm	
MDL	0.01	0.1	0.5	
MMI-11-14-5	Rock	<0.01	<0.1	<0.5
MMI-11-15-15A	Rock	0.12	<0.1	0.7
MMI-11-15-1A	Rock	<0.01	<0.1	<0.5
MMI-11-15-1C	Rock	<0.01	<0.1	<0.5
MMI-11-18-7	Rock	<0.01	<0.1	<0.5
ZE-11 553	Rock	<0.01	0.8	<0.5
ZE-11 561	Rock	0.02	<0.1	<0.5
ZE-11 568	Rock	<0.01	<0.1	<0.5
ZE-11 575	Rock	<0.01	<0.1	<0.5
ZE-11 585	Rock	0.01	<0.1	<0.5
ZE-11 588	Rock	<0.01	<0.1	<0.5
ZE-11 592	Rock	<0.01	<0.1	<0.5
ZE-11 606B	Rock	<0.01	<0.1	<0.5
ZE-11 608	Rock	<0.01	<0.1	1.0
ZE-11 612A	Rock	0.03	<0.1	<0.5
ZE-11 612B	Rock	<0.01	<0.1	<0.5
ZE-11 613	Rock	0.01	<0.1	<0.5
ZE-11 621	Rock	0.01	<0.1	<0.5



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QUALITY CONTROL REPORT

VAN11006138.1

Method	WGHT	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B												
Analyte	Wgt	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO	Cr2O3	Ni	Sc	LOI	Sum	Ba	Be	Co	Cs	
Unit	kg	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	%	%	ppm	ppm	ppm	ppm	
MDL	0.01	0.01	0.01	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.002	20	1	-5.1	0.01	1	1	0.2	0.1	
ZE-11 556B	Rock	0.30	39.35	17.18	13.45	3.15	11.80	2.40	0.77	2.50	0.47	0.20	0.008	33	25	8.4	99.69	458	6	45.7	2.3
Pulp Duplicates																					
ZE-11 643B	Rock	0.47	46.91	19.32	10.61	6.72	4.96	4.54	0.71	0.96	0.28	0.24	0.005	<20	25	4.5	99.73	393	<1	29.6	0.4
REP ZE-11 643B	QC		46.88	19.34	10.63	6.73	4.93	4.54	0.72	0.96	0.28	0.24	0.005	<20	25	4.5	99.73	393	<1	29.1	0.5
ZE-11 636A	Rock	0.12	73.29	9.67	7.44	0.07	0.89	2.38	3.99	0.32	0.02	0.13	0.003	<20	<1	1.2	99.45	66	7	1.1	1.1
REP ZE-11 636A	QC		73.20	9.63	7.52	0.07	0.88	2.40	4.02	0.32	0.03	0.13	0.010	<20	<1	1.2	99.47	72	10	1.2	1.2
ZE-11 586	Rock	0.28	61.82	14.30	8.84	0.36	2.13	5.10	5.58	0.71	0.14	0.24	<0.002	<20	5	0.6	99.86	335	2	2.1	0.6
REP ZE-11 586	QC																				
MMI-11-14-3	Rock	0.26	62.89	13.96	6.56	2.68	4.12	3.16	0.98	1.05	0.17	0.14	0.003	<20	15	4.1	99.83	472	2	13.0	0.3
REP MMI-11-14-3	QC																				
ZE-11 575	Rock	0.19	61.23	16.90	5.83	1.79	6.17	3.84	1.98	0.61	0.21	0.13	<0.002	<20	10	1.0	99.65	1917	<1	10.3	0.7
REP ZE-11 575	QC																				
Core Reject Duplicates																					
MMI-11-14-1	Rock	0.16	62.34	15.73	5.15	1.78	3.27	5.61	1.08	0.61	0.24	0.09	<0.002	<20	9	3.9	99.77	915	3	6.8	0.3
DUP MMI-11-14-1	QC		62.35	15.79	5.01	1.79	3.30	5.62	1.10	0.63	0.24	0.09	<0.002	<20	9	3.9	99.77	868	2	6.8	0.4
Reference Materials																					
STD CSC	Standard																				
STD CSC	Standard																				
STD DS8	Standard																				
STD DS8	Standard																				
STD DS8	Standard																				
STD OREAS45CA	Standard																				
STD OREAS45CA	Standard																				
STD OREAS45CA	Standard																				
STD OREAS76A	Standard																				
STD OREAS76A	Standard																				
STD SO-18	Standard		58.55	13.90	7.57	3.34	6.28	3.65	2.08	0.68	0.83	0.39	0.541	44	24	1.9	99.74	507	<1	27.1	6.5
STD SO-18	Standard		58.14	14.09	7.63	3.34	6.31	3.72	2.15	0.69	0.83	0.39	0.554	51	25	1.9	99.74	530	<1	27.5	7.0
STD SO-18	Standard		58.53	13.93	7.58	3.32	6.29	3.66	2.10	0.69	0.82	0.39	0.529	44	24	1.9	98.20	502	<1	25.8	7.0

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Project: Stikinia

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QUALITY CONTROL REPORT

VAN11006138.1

Method	Analyte	4A-4B																				
		Ga	Hf	Nb	Rb	Sn	Sr	Ta	Th	U	V	W	Zr	Y	La	Ce	Pr	Nd	Sm	Eu	Gd	
Unit		ppm																				
MDL		0.5	0.1	0.1	0.1	1	0.5	0.1	0.2	0.1	8	0.5	0.1	0.1	0.1	0.1	0.02	0.3	0.05	0.02	0.05	
ZE-11 556B	Rock	21.6	3.6	20.9	12.5	2	815.7	1.5	1.7	0.5	267	1.2	162.0	29.4	21.4	44.6	6.15	28.3	6.19	2.06	6.06	
Pulp Duplicates																						
ZE-11 643B	Rock	17.8	1.9	2.7	17.3	<1	421.4	0.3	1.7	0.6	261	<0.5	55.8	16.3	11.9	24.3	3.45	15.2	3.46	1.16	3.51	
REP ZE-11 643B	QC	17.6	1.4	2.8	17.9	<1	420.3	0.3	1.7	0.7	266	<0.5	56.9	16.9	11.8	24.1	3.30	15.9	3.92	1.17	3.63	
ZE-11 636A	Rock	50.6	50.0	205.1	189.4	21	44.9	12.6	37.4	13.4	47	2.0	2016	254.7	212.2	448.0	51.86	206.9	44.86	2.62	47.19	
REP ZE-11 636A	QC	49.6	44.9	189.3	187.8	18	45.6	11.8	31.0	12.5	37	2.4	1961	241.7	205.4	427.7	49.38	187.0	43.92	2.45	45.01	
ZE-11 586	Rock	32.6	9.6	49.4	64.3	3	37.4	3.4	5.8	2.2	<8	0.6	368.4	55.8	47.6	101.5	13.58	54.4	11.95	2.38	11.21	
REP ZE-11 586	QC																					
MMI-11-14-3	Rock	16.9	2.3	5.4	19.0	<1	326.9	0.4	1.5	1.7	195	0.6	71.9	18.9	8.7	16.6	2.58	11.5	2.92	0.83	2.94	
REP MMI-11-14-3	QC																					
ZE-11 575	Rock	18.9	3.4	7.1	43.9	<1	598.7	0.4	4.0	1.7	127	<0.5	118.7	21.8	18.4	35.6	4.39	17.6	3.74	1.15	3.66	
REP ZE-11 575	QC																					
Core Reject Duplicates																						
MMI-11-14-1	Rock	15.8	6.2	15.7	27.6	1	395.4	0.8	9.0	4.0	72	<0.5	217.9	21.8	32.2	62.3	7.53	27.9	4.62	1.08	4.42	
DUP MMI-11-14-1	QC	16.2	6.4	16.1	27.7	<1	403.0	1.0	9.7	4.1	74	<0.5	231.0	21.7	33.3	64.5	7.60	27.7	5.12	1.18	4.47	
Reference Materials																						
STD CSC	Standard																					
STD CSC	Standard																					
STD DS8	Standard																					
STD DS8	Standard																					
STD DS8	Standard																					
STD OREAS45CA	Standard																					
STD OREAS45CA	Standard																					
STD OREAS45CA	Standard																					
STD OREAS76A	Standard																					
STD OREAS76A	Standard																					
STD SO-18	Standard	18.1	9.3	21.3	28.9	15	408.6	6.7	9.4	15.3	207	13.7	290.4	32.1	11.8	26.4	3.28	13.1	2.84	0.83	2.93	
STD SO-18	Standard	18.8	9.9	21.1	29.4	16	422.0	7.4	9.7	16.2	213	14.8	298.0	32.2	12.6	26.7	3.38	13.4	2.91	0.85	2.89	
STD SO-18	Standard	17.0	9.3	19.4	27.5	15	401.3	7.0	9.9	15.9	196	13.9	276.0	30.6	12.6	27.6	3.36	13.9	2.97	0.90	2.93	

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Project: Stikinia  
Report Date: January 18, 2012

Page: 1 of 2 Part 3

# QUALITY CONTROL REPORT

VAN11006138.1

Method	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	2A Leco	2A Leco	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	
Analyte	Tb	Dy	Ho	Er	Tm	Yb	Lu	TOT/C	TOT/S	Mo	Cu	Pb	Zn	Ni	As	Cd	Sb	Bi	Ag	Au	
Unit	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	
MDL	0.01	0.05	0.02	0.03	0.01	0.05	0.01	0.02	0.02	0.1	0.1	0.1	1	0.1	0.5	0.1	0.1	0.1	0.1	0.1	
ZE-11 556B	Rock	0.90	5.34	0.99	2.75	0.38	2.38	0.38	1.52	0.10	1.0	19.4	2.1	111	44.2	6.6	<0.1	0.5	<0.1	<0.1	2.0
Pulp Duplicates																					
ZE-11 643B	Rock	0.52	3.22	0.67	1.78	0.27	1.75	0.26	0.08	<0.02	0.1	44.4	1.2	120	21.7	4.0	<0.1	0.9	<0.1	<0.1	0.5
REP ZE-11 643B	QC	0.53	3.61	0.67	1.77	0.26	1.77	0.27													
ZE-11 636A	Rock	8.05	45.82	10.45	27.18	4.28	25.90	3.86	0.19	<0.02	0.4	4.2	20.4	413	0.4	1.8	0.9	0.5	0.3	<0.1	*
REP ZE-11 636A	QC	7.91	44.71	9.82	26.96	4.12	25.30	3.81													
ZE-11 586	Rock	1.78	10.75	1.97	5.86	0.86	5.64	0.87	<0.02	<0.02	0.7	6.4	7.4	136	1.9	2.3	0.3	0.2	<0.1	<0.1	0.5
REP ZE-11 586	QC								<0.02	<0.02											
MMI-11-14-3	Rock	0.50	2.97	0.65	1.97	0.32	1.91	0.26	0.60	0.06	1.8	50.0	2.7	43	19.0	9.4	<0.1	0.1	<0.1	0.1	<0.5
REP MMI-11-14-3	QC										1.6	48.9	2.7	45	19.8	9.8	<0.1	<0.1	<0.1	0.2	1.0
ZE-11 575	Rock	0.61	3.78	0.76	2.22	0.34	2.43	0.38	<0.02	<0.02	0.2	7.8	2.4	24	1.4	1.5	<0.1	<0.1	<0.1	<0.1	1.0
REP ZE-11 575	QC								<0.02	<0.02											
Core Reject Duplicates																					
MMI-11-14-1	Rock	0.61	3.71	0.70	2.20	0.35	2.33	0.35	0.60	<0.02	0.5	2.4	1.0	50	5.8	0.8	<0.1	<0.1	<0.1	<0.1	1.0
DUP MMI-11-14-1	QC	0.65	3.91	0.79	2.31	0.36	2.65	0.39	0.61	<0.02	0.4	1.8	1.3	53	5.2	<0.5	<0.1	<0.1	<0.1	<0.1	1.7
Reference Materials																					
STD CSC	Standard								3.10	4.22											
STD CSC	Standard								3.03	4.11											
STD DS8	Standard										13.5	111.2	129.3	318	38.9	26.2	2.5	5.2	7.2	2.0	105.1
STD DS8	Standard										13.2	110.2	127.8	305	38.8	25.0	2.3	4.7	7.0	1.8	94.5
STD DS8	Standard										14.0	108.6	123.7	300	35.6	26.5	2.0	4.3	5.3	1.7	96.0
STD OREAS45CA	Standard										1.0	496.7	21.3	59	238.3	3.6	<0.1	0.1	0.2	0.3	41.7
STD OREAS45CA	Standard										1.1	529.0	22.2	63	259.7	3.3	<0.1	0.1	0.2	0.3	46.6
STD OREAS45CA	Standard										0.9	512.4	22.0	64	255.3	3.7	0.1	0.1	0.2	0.3	42.5
STD OREAS76A	Standard								0.15	16.41											
STD OREAS76A	Standard								0.15	16.71											
STD SO-18	Standard	0.49	2.79	0.62	1.80	0.28	1.82	0.28													
STD SO-18	Standard	0.50	2.91	0.61	1.91	0.29	1.82	0.28													
STD SO-18	Standard	0.49	3.02	0.62	1.83	0.27	1.78	0.26													



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Project: Stikinia

Report Date: January 18, 2012

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## QUALITY CONTROL REPORT

VAN11006138.1

Method	1DX	1DX	1DX	
Analyte	Hg	Tl	Se	
Unit	ppm	ppm	ppm	
MDL	0.01	0.1	0.5	
ZE-11 556B	Rock	<0.01	<0.1	0.6
Pulp Duplicates				
ZE-11 643B	Rock	<0.01	<0.1	0.6
REP ZE-11 643B	QC			
ZE-11 636A	Rock	<0.01	<0.1	0.6
REP ZE-11 636A	QC			
ZE-11 586	Rock	<0.01	<0.1	0.8
REP ZE-11 586	QC			
MMI-11-14-3	Rock	<0.01	<0.1	0.8
REP MMI-11-14-3	QC	<0.01	<0.1	1.0
ZE-11 575	Rock	<0.01	<0.1	<0.5
REP ZE-11 575	QC			
Core Reject Duplicates				
MMI-11-14-1	Rock	<0.01	<0.1	<0.5
DUP MMI-11-14-1	QC	<0.01	<0.1	<0.5
Reference Materials				
STD CSC	Standard			
STD CSC	Standard			
STD DS8	Standard	0.21	5.7	5.6
STD DS8	Standard	0.19	5.3	5.6
STD DS8	Standard	0.20	5.4	5.3
STD OREAS45CA	Standard	0.03	<0.1	0.6
STD OREAS45CA	Standard	0.03	<0.1	1.4
STD OREAS45CA	Standard	0.02	<0.1	0.9
STD OREAS76A	Standard			
STD OREAS76A	Standard			
STD SO-18	Standard			
STD SO-18	Standard			
STD SO-18	Standard			



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QUALITY CONTROL REPORT

VAN11006138.1

		WGHT	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B	4A-4B										
		Wgt	SiO2	Al2O3	Fe2O3	MgO	CaO	Na2O	K2O	TiO2	P2O5	MnO	Cr2O3	Ni	Sc	LOI	Sum	Ba	Be	Co	Cs	
		kg	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	%	%	ppm	ppm	ppm	ppm	
		0.01	0.01	0.01	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.002	20	1	-5.1	0.01	1	1	1	0.2	0.1
STD SO-18	Standard		58.12	14.14	7.60	3.36	6.36	3.67	2.12	0.69	0.82	0.40	0.541	50	24	1.9	98.20	493	<1	25.5	6.6	
STD SO-18	Standard		58.23	14.08	7.56	3.35	6.36	3.67	2.12	0.69	0.83	0.40	0.544	33	24	1.9	99.75	513	<1	24.6	7.0	
STD SO-18	Standard		58.02	14.15	7.64	3.37	6.35	3.69	2.14	0.69	0.84	0.40	0.551	36	24	1.9	99.73	509	1	25.4	7.0	
STD SO-18	Standard		58.20	14.13	7.62	3.38	6.26	3.66	2.14	0.68	0.82	0.39	0.544	46	24	1.9	99.73	513	1	27.5	6.8	
STD SO-18	Standard		58.27	14.10	7.56	3.34	6.31	3.68	2.13	0.68	0.81	0.39	0.544	46	24	1.9	99.73	508	<1	27.2	6.0	
STD CSC Expected																						
STD OREAS76A Expected																						
STD DS8 Expected																						
STD OREAS45CA Expected																						
STD SO-18 Expected			58.47	14.23	7.67	3.35	6.42	3.71	2.17	0.69	0.83	0.39	0.55	44	25			514		26.2	7.1	
BLK	Blank																					
BLK	Blank																					
BLK	Blank																					
BLK	Blank																					
BLK	Blank																					
BLK	Blank		<0.01	<0.01	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	<20	<1	0.0	<0.01	<1	<1	<0.2	<0.1	
BLK	Blank		<0.01	<0.01	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	<20	<1	0.0	<0.01	<1	<1	<0.2	<0.1	
BLK	Blank		<0.01	<0.01	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	<20	<1	0.0	<0.01	<1	<1	<0.2	<0.1	
BLK	Blank		<0.01	<0.01	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	<20	<1	0.0	<0.01	<1	<1	<0.2	<0.1	
Prep Wash																						
G1	Prep Blank	<0.01	67.21	15.31	3.73	1.08	3.41	3.44	3.61	0.40	0.19	0.10	<0.002	<20	5	1.2	99.73	1051	3	3.8	4.4	
G1	Prep Blank	<0.01	67.45	15.63	3.43	1.09	3.53	3.51	3.69	0.39	0.18	0.10	<0.002	<20	5	0.7	99.74	1068	1	3.5	4.2	



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Project: Stikinia

Report Date: January 18, 2012

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# QUALITY CONTROL REPORT

VAN11006138.1

		4A-4B																			
		Ga	Hf	Nb	Rb	Sn	Sr	Ta	Th	U	V	W	Zr	Y	La	Ce	Pr	Nd	Sm	Eu	Gd
		ppm																			
		0.5	0.1	0.1	0.1	1	0.5	0.1	0.2	0.1	8	0.5	0.1	0.1	0.1	0.1	0.02	0.3	0.05	0.02	0.05
STD SO-18	Standard	16.9	9.3	20.0	27.2	14	401.4	7.1	9.9	15.9	199	17.0	274.9	30.4	12.0	26.4	3.31	12.9	2.92	0.87	2.86
STD SO-18	Standard	17.5	9.7	20.6	27.0	15	385.5	7.4	10.8	16.5	186	14.6	278.7	32.0	12.6	26.9	3.40	14.0	3.05	0.90	3.04
STD SO-18	Standard	17.5	9.7	19.8	27.8	15	388.9	7.7	10.4	16.8	187	14.6	287.8	32.3	12.8	27.2	3.47	13.8	3.22	0.92	2.86
STD SO-18	Standard	18.5	9.4	20.3	28.0	15	437.4	7.2	9.9	16.9	202	14.6	286.0	31.5	12.9	26.9	3.30	13.2	2.90	0.91	3.32
STD SO-18	Standard	18.5	8.8	20.0	26.5	14	449.4	6.7	8.8	15.6	199	12.6	275.6	26.7	11.9	26.6	3.09	12.8	2.77	0.81	3.53
STD CSC Expected																					
STD OREAS76A Expected																					
STD DS8 Expected																					
STD OREAS45CA Expected																					
STD SO-18 Expected		17.6	9.8	21.3	28.7	15	407.4	7.4	9.9	16.4	200	14.8	280	31	12.3	27.1	3.45	14	3	0.89	2.93
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				
BLK	Blank	<0.5	<0.1	0.2	<0.1	<1	<0.5	<0.1	<0.2	<0.1	<8	<0.5	<0.1	<0.1	<0.1	<0.1	<0.02	<0.3	<0.05	<0.02	<0.05
BLK	Blank	<0.5	<0.1	<0.1	<0.1	<1	<0.5	<0.1	<0.2	<0.1	<8	<0.5	<0.1	<0.1	<0.1	<0.1	<0.02	<0.3	<0.05	<0.02	<0.05
BLK	Blank	<0.5	<0.1	<0.1	<0.1	<1	<0.5	<0.1	<0.2	<0.1	<8	<0.5	<0.1	<0.1	<0.1	<0.1	<0.02	<0.3	<0.05	<0.02	<0.05
BLK	Blank	<0.5	<0.1	0.7	<0.1	<1	<0.5	<0.1	<0.2	<0.1	<8	<0.5	1.7	<0.1	<0.1	<0.1	<0.02	<0.3	<0.05	<0.02	0.51
Prep Wash																					
G1	Prep Blank	19.3	4.2	23.6	128.5	2	725.6	1.5	10.6	3.4	57	<0.5	150.1	16.8	36.4	70.8	8.16	29.2	4.91	1.20	3.95
G1	Prep Blank	19.4	4.2	22.4	129.0	<1	752.3	1.5	9.6	3.7	54	0.9	137.9	17.6	33.5	67.2	7.68	25.9	4.58	1.25	3.69



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QUALITY CONTROL REPORT

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		4A-4B 2A	Leco 2A	Leco	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX	1DX								
		Tb	Dy	Ho	Er	Tm	Yb	Lu	TOT/C	TOT/S	Mo	Cu	Pb	Zn	Ni	As	Cd	Sb	Bi	Ag	Au	
		ppm	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb							
STD SO-18	Standard	0.49	3.12	0.62	1.76	0.28	1.78	0.27			0.1	0.1	0.1	1	0.1	0.5	0.1	0.1	0.1	0.1	0.1	0.5
STD SO-18	Standard	0.49	3.21	0.59	1.83	0.28	1.85	0.27														
STD SO-18	Standard	0.49	3.00	0.59	1.74	0.27	1.87	0.28														
STD SO-18	Standard	0.52	2.94	0.63	1.80	0.30	1.78	0.27														
STD SO-18	Standard	0.49	2.93	0.60	1.93	0.29	1.74	0.30														
STD CSC Expected									2.94	4.25												
STD OREAS76A Expected									0.16	18												
STD DS8 Expected											13.44	110	123	312	38.1	26	2.38	4.8	6.67	1.69	107	
STD OREAS45CA Expected											1	494	20	60	240	3.8	0.1	0.13	0.19	0.275	43	
STD SO-18 Expected		0.53	3	0.62	1.84	0.27	1.79	0.27														
BLK	Blank								<0.02	<0.02												
BLK	Blank								<0.02	<0.02												
BLK	Blank										<0.1	<0.1	<0.1	<1	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5
BLK	Blank										<0.1	<0.1	<0.1	<1	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5
BLK	Blank										<0.1	<0.1	<0.1	<1	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5
BLK	Blank	<0.01	<0.05	<0.02	<0.03	<0.01	<0.05	<0.01														
BLK	Blank	<0.01	<0.05	<0.02	<0.03	<0.01	<0.05	<0.01														
BLK	Blank	<0.01	<0.05	<0.02	<0.03	<0.01	<0.05	<0.01														
BLK	Blank	<0.01	<0.05	<0.02	<0.03	<0.01	<0.05	<0.01														
Prep Wash																						
G1	Prep Blank	0.52	2.86	0.52	1.70	0.27	2.11	0.28	0.03	<0.02	0.3	3.2	5.4	49	3.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	0.9
G1	Prep Blank	0.51	2.95	0.57	1.62	0.28	1.90	0.29	0.05	<0.02	<0.1	2.3	4.4	46	2.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	0.9



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## QUALITY CONTROL REPORT

VAN11006138.1

		1DX Hg ppm 0.01	1DX TI ppm 0.1	1DX Se ppm 0.5
STD SO-18	Standard			
STD SO-18	Standard			
STD SO-18	Standard			
STD SO-18	Standard			
STD SO-18	Standard			
STD CSC Expected				
STD OREAS76A Expected				
STD DS8 Expected		0.192	5.4	5.23
STD OREAS45CA Expected		0.03	0.07	0.5
STD SO-18 Expected				
BLK	Blank			
BLK	Blank			
BLK	Blank	<0.01	<0.1	<0.5
BLK	Blank	<0.01	<0.1	<0.5
BLK	Blank	<0.01	<0.1	<0.5
BLK	Blank			
Prep Wash				
G1	Prep Blank	<0.01	0.3	<0.5
G1	Prep Blank	<0.01	0.3	<0.5