



**BUREAU** MINERAL LABORATORIES  
**VERITAS** Canada

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Bureau Veritas Commodities Canada Ltd.  
9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada  
PHONE (604) 253-3158

**Client:** **Fireweed Zinc Ltd.**  
Suite 1020, 800 Pender Street  
Vancouver British Columbia V5C 2V6 Canada

Submitted By: Dennis Arne  
Receiving Lab: Canada-Whitehorse  
Received: September 13, 2018  
Report Date: September 29, 2018  
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## CERTIFICATE OF ANALYSIS

WHI18000922.1

### CLIENT JOB INFORMATION

Project: MacMillan Pass  
Shipment ID: FWZ18-BV-038  
P.O. Number  
Number of Samples: 10

### SAMPLE DISPOSAL

RTRN-PLP Return After 90 days  
DISP-RJT-SOIL Immediate Disposal of Soil Reject

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

Invoice To: Fireweed Zinc Ltd.  
Suite 1020, 800 Pender Street  
Vancouver British Columbia V5C 2V6  
Canada

CC: Jack Milton  
Gilles Dessureau  
Jill Moore  
Maeve Murphy

### SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
SS230	10	Dry at 60C sieve 100g to -230 mesh			WHI
AQ250	10	1:1:1 Aqua Regia digestion Ultratrace ICP-MS analysis	0.5	Completed	VAN
SHP01	10	Per sample shipping charges for branch shipments			VAN

### ADDITIONAL COMMENTS

  
KERRY JAY  
Geochem Project Specialist

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. Bureau Veritas 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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	Method Analyte Unit MDL	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
		ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
3200003	Soil	49.62	296.18	169.97	5919.8	11997	525.5	23.4	5622	2.44	113.2	14.3	4.2	0.1	215.7	108.07	30.97	0.27	1188	0.74	0.309
3200004	Soil	24.44	221.40	38.38	5956.9	10721	531.9	31.5	933	4.24	123.6	6.9	3.1	1.9	135.5	29.26	50.44	0.42	293	0.59	0.352
3200005	Soil	102.00	74.44	34.06	1891.3	1098	365.5	21.4	636	2.88	125.6	17.2	2.6	6.1	166.4	19.08	22.34	0.18	197	4.46	0.127
3200006	Soil	1.28	83.51	29.27	310.1	1841	93.7	24.5	327	6.58	36.2	1.5	4.5	5.9	11.5	2.71	25.58	0.51	26	0.02	0.072
3200007	Soil	1.70	99.29	61.71	288.6	3380	73.0	17.1	997	5.38	37.9	2.1	5.8	4.9	27.0	4.55	17.60	0.29	40	0.07	0.083
3200008	Soil	5.96	244.69	2187.96	824.5	12513	110.9	17.5	586	7.43	245.3	5.8	8.5	8.1	199.3	4.79	317.42	0.90	78	0.01	0.143
3200009	Soil	4.02	339.20	6407.45	1310.4	>100000	75.7	10.0	176	11.63	1200.8	13.2	42.8	7.1	35.6	27.47	>2000	2.79	42	<0.01	0.130
3200010	Soil	9.82	179.97	232.59	144.1	3994	26.4	3.5	164	5.80	137.7	5.6	32.2	2.4	234.4	0.84	31.50	0.95	54	0.10	0.408
3200011	Soil	84.76	149.03	688.49	186.0	8660	69.2	5.0	98	5.74	266.7	18.7	5.9	5.2	413.0	1.64	59.34	0.73	169	0.71	1.141
3200012	Soil	5.74	19.81	7.21	92.2	548	5.3	0.5	11	>40	32.0	1.9	1.0	0.8	5.2	0.89	4.50	0.07	671	<0.01	0.150



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		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Ti	S	Hg	Se	Te	Ga
		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
		0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
3200003	Soil	21.9	110.2	0.25	>10000	0.024	<20	1.97	0.008	0.28	1.3	2.3	3.97	0.07	1247	15.7	0.32	4.9
3200004	Soil	29.1	139.3	0.12	2933.4	0.005	<20	0.81	0.003	0.13	0.5	6.3	2.02	0.11	1246	18.6	0.44	2.1
3200005	Soil	42.0	35.9	2.41	1814.7	0.003	<20	0.51	0.006	0.10	0.4	6.2	1.83	0.05	471	4.7	0.13	0.8
3200006	Soil	32.5	35.9	0.03	494.0	0.001	<20	0.65	<0.001	0.07	<0.1	9.8	0.44	<0.02	140	2.4	0.10	0.4
3200007	Soil	34.0	22.4	0.04	2723.0	0.003	<20	0.82	<0.001	0.11	<0.1	9.6	0.38	0.06	229	1.7	0.06	1.1
3200008	Soil	33.8	28.9	0.05	5324.9	0.005	<20	3.15	0.013	0.45	0.1	15.8	0.83	0.15	969	23.9	0.22	6.2
3200009	Soil	31.2	17.8	0.03	1200.0	0.005	<20	1.57	0.002	0.17	0.1	12.1	0.54	0.41	18774	42.3	1.12	6.2
3200010	Soil	36.6	17.1	0.04	1248.0	0.008	<20	1.02	0.002	0.23	<0.1	3.4	0.88	0.46	572	16.4	0.53	1.5
3200011	Soil	35.9	33.9	0.14	139.5	0.014	<20	1.73	0.014	0.40	1.1	6.3	2.29	0.83	1294	23.9	0.55	3.6
3200012	Soil	4.1	11.0	0.02	41.6	0.009	<20	0.32	<0.001	0.04	<0.1	0.9	1.03	1.98	64	2.1	<0.02	0.6



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## QUALITY CONTROL REPORT

WHI18000922.1

	Method Analyte Unit MDL	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250	AQ250
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
		ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
		0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1	0.01	0.001
Pulp Duplicates																					
3200005	Soil	102.00	74.44	34.06	1891.3	1098	365.5	21.4	636	2.88	125.6	17.2	2.6	6.1	166.4	19.08	22.34	0.18	197	4.46	0.127
REP 3200005	QC	99.66	76.18	31.96	1892.6	1081	359.3	22.4	674	2.82	124.0	16.8	2.6	5.5	163.9	18.78	20.84	0.19	194	4.31	0.130
Reference Materials																					
STD DS11	Standard	15.23	159.40	144.38	322.9	1594	78.7	13.9	1095	3.37	46.7	2.7	55.6	8.0	68.3	2.32	6.59	11.60	54	1.13	0.078
STD OREAS45EA	Standard	1.58	737.99	15.35	33.8	253	433.0	56.0	451	24.72	11.8	1.9	47.8	10.8	3.9	<0.01	0.21	0.28	331	0.04	0.034
STD OREAS45EA Expected		1.6	709	14.3	31.4	260	381	52	400	22.65	11.4	1.73	53	10.7	4.05	0.03	0.32	0.26	303	0.036	0.029
STD DS11 Expected		13.9	149	138	345	1710	77.7	14.2	1055	3.1	42.8	2.59	79	7.65	67.3	2.37	7.2	12.2	50	1.063	0.0701
BLK	Blank	<0.01	<0.01	<0.01	<0.1	2	<0.1	<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	<0.01	<0.02	<0.02	<1	<0.01	<0.001



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		La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga
		ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
		0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
Pulp Duplicates																		
3200005	Soil	42.0	35.9	2.41	1814.7	0.003	<20	0.51	0.006	0.10	0.4	6.2	1.83	0.05	471	4.7	0.13	0.8
REP 3200005	QC	37.3	36.4	2.37	1810.5	0.003	<20	0.50	0.005	0.10	0.4	6.4	1.77	0.04	454	4.6	0.11	0.7
Reference Materials																		
STD DS11	Standard	19.7	63.8	0.90	389.0	0.095	<20	1.25	0.079	0.42	2.9	3.4	5.29	0.29	275	2.4	4.93	5.6
STD OREAS45EA	Standard	7.1	953.1	0.10	143.9	0.106	<20	3.70	0.027	0.06	<0.1	81.5	0.08	0.04	14	1.4	0.08	14.5
STD OREAS45EA Expected		7.06	849	0.095	148	0.0984		3.32	0.02	0.053		78	0.072	0.036	10	0.78	0.1	12.4
STD DS11 Expected		18.6	61.5	0.85	417	0.0976		1.129	0.0694	0.4	2.9	3.1	4.9	0.2835	260	2.2	4.56	4.7
BLK	Blank	<0.5	<0.5	<0.01	<0.5	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	7	<0.1	<0.02	<0.1