# **Rimfire Minerals Corporation**

# 2002 TECHNICAL REPORT ON THE TALBOT CREEK PROJECT

Located in the Whitehorse Mining District NTS 115G/9, 15 61° 45' North Latitude 138° 30' West Longitude

-prepared for-DEPARTMENT OF ENERGY MINES & RESOURCES GOVERNMENT OF YUKON P.O. Box 2703 Whitehorse, Yukon, Canada Y1A 2C6

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YUKON ENERGY, MINES

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Equity Engineering Ltd.

# 2002 TECHNICAL REPORT ON THE TALBOT CREEK PROJECT

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### 1.0 INTRODUCTION

The Talbot Creek Target was selected for its potential for hosting volcanogenic massive sulphide (VMS) deposits similar in age to those in the Finlayson Belt of southeastern Yukon (Figure 1). The regional geology consists of Devonian-Mississippian strata of the Yukon Tanana Terrane that have not been mapped since the 1960's, nor been systematically explored for VMS-style mineralization. Anomalous government regional geochemical surveys (RGS) highlight the Talbot Creek area, particularly in the elements Cu, Pb, Zn, Ag and Ba. Tertiary Nisling Range intrusions are common throughout this area of the Yukon and have minor associated mineralization including porphyry and skarn mineralization. Rimfire Minerals Corporation considered that the area's VMS potential was worthy of investigation and contracted Equity Engineering Ltd. (Equity) to carry out an exploration program. The objective of the program was to cover the most prospective area with prospecting, detailed silt sampling, and geological mapping. Special attention was focused on identifying favourable geological characteristics, such as felsic volcanic rocks and their subvolcanic equivalents, syngenetic mineralization, and evidence of exhalative activity. Determining the source of the anomalous RGS geochemistry was also critical, since there was potential for igneous-related mineralization associated with the Tertiary igneous activity. Equity completed a four-day, two-man fly camp based out of a single fly camp location at the headwaters of Onion Creek in July of 2002.

#### 2.0 PROPERTY TITLE

There are no quartz claims currently held in the Talbot Creek Target area. A native land selection is situated in the southeast corner of the area of interest (Figure 2).

#### 3.0 LOCATION, ACCESS AND GEOGRAPHY

The Talbot Creek Target area is located approximately 60 kilometres northeast of the village of Destruction Bay at 61° 45' north latitude 138° 30' west longitude (Figure 1). Haines Junction, located 130 km to the southeast, has a more complete line of services as well as a helicopter base. Field work was centred at the headwaters of Onion Creek (Figure 4), concentrating on anomalous drainages as indicated in the RGS survey (Hornbrook and Friske, 1986). Primary access is by helicopter, based in Haines Junction. A winter access trail follows Brooks Creek and ends approximately 10 km southwest of the target area. The Talbot area is subject to a northern continental climate, with short warm summers and cold dry winters. Snow fall depths range between 2 and 3 m.

### 4.0 EXPLORATION HISTORY

The Talbot Creek area has seen very little exploration in recent time. In 1970 Atlas Exploration Ltd. discovered the Rhyolite prospect (Minfile 115G-79) and conducted work including mapping, geochemical surveying, hand trenching and ground magnetics. The claims were then optioned in 1971 by Imperial Oil which conducted IP and drilled 4 holes (457 m). Mineralization at the Rhyolite consists of molybdenite and chalcopyrite in quartz veins hosted in Nisling Range intrusions. In 1972 Occidental Petroleum Ltd. conducted extensive geochemical, mapping and prospecting surveys over a broader area including the Talbot Project area. At this time they discovered the Brummer occurrence southeast of the Talbot Project area and conducted grid soil sampling and mapping surveys. The Brummer occurrence is a small showing of massive sphalerite, pyrrhotite and pyrite in what are described as rhyolites. Over 20 km to the southeast a number of other porphyry and skarn prospects were intermittently explored in the 1970's and then re-examined in the late 1980's.





#### 5.0 EXPLORATION PROGRAM

A total of four days were spent on the property prospecting, mapping, rock sampling and silt sampling from a centrally located fly camp. The Haines Junction based helicopter moved two men and a fly camp from the airport at destruction Bay to the Onion Creek camp location. A magnetic declination of 25° 25' E was used for all compass measurements. All maps and UTM coordinates are referenced to the 1927 North American Datum (NAD-27).

A total of 5 rock samples were taken and submitted for analysis. Descriptions of the rock samples are attached in Appendix B. Thirty-four silt samples were taken from all drainages accessible from the camp. A single grab soil samples was taken down slope from a gossanous porphyry dyke. Sample sites were marked by orange and blue flagging and aluminum tags for rocks and Tyvek tags for soil and silt samples. All samples were analyzed by ACME Analytical Labs of Vancouver (Appendix C). Locations for all 2002 silt, soil and rock samples are plotted on Figure 4.

#### 6.0 **REGIONAL GEOLOGY**

The Kluane Plateau represents the northern end of the Coast Plutonic Complex. Some of the oldest rocks in the region are undivided metamorphic rocks (unit PMM), which lie to the south (Gordey, 1999)(Muller, 1966)(Figure 3). The Devono-Mississippian Nasina assemblage (unit DMN), which consists of graphitic and muscovite-bearing quartzites, dominates the basement rocks in the project area. Paleozoic and Mesozoic oceanic rocks of the Windy assemblage (PMW) occur largely west of the project area. The oldest of three intrusive suites is the mid-Cretaceous Whitehorse Suite of granitic rocks. The Whitehorse Suite granites form large batholiths to the north of the Talbot area. The Early Tertiary Nisling granitic Suite is by far the most voluminous intrusive suite in the region and the most common in the project area. In much the same way as the southern extents of the Coast Plutonic Complex, granite has essentially consumed its host leaving little more than metamorphic pendants of volcanic and clastic rocks. High metamorphic grades and fragmentation of stratigraphy have made correlating these rocks to those outside the plutonic belt difficult. Mapping in the region is largely out of date (Muller, 1966) and only small portions such as at Aishihik Lake, to the east, have been mapped recently (Johnston, 1996). The youngest igneous rocks in the region belong to the Eocene Skukum Suite, typified by felsic volcanics, dykes and plugs.

#### 7.0 PROPERTY GEOLOGY

### 7.1 Lithology

The geology in the Talbot area consists of a monotonous sequence of very extensive carbonaceous quartzite (unit QZTc) intruded by generally small dyke-like bodies of variably-textured, but non-foliated felsic intrusions (Figure 4). Variability in the quartzites is marked by minor amounts of carbonaceous phyllites, and shale (unit PHY) and quartz-biotite schist hornfels (unit SCHqb). Large intrusive bodies are essentially massive equigranular granite to granodiorite (unit GRT). Smaller dykes and sills, which are common in the area and often gossanous, are variably-textured ranging from feldspar (unit FP) to quartz-feldspar (unit QFP) to quartz-feldspar hornblende porphyritic (unit QFHP). Rare felsite dykes locally cause bleaching and alteration of sediments near intrusive margins. This alteration causes the adjacent rocks to appear foliated or stratified. Initially it was believed that these rocks were pre-metamorphic felsic volcanics. Unfortunately absolutely no volcanic component was apparent in any of the Nasina quartzites.



# **LITHOLOGIC LEGEND** (to accompany Figure 3)

#### QUATERNARY

Q QUATERNARY unconsolidated glacial, glaciofluvial and glaciolacustrine deposits; fluviatile silt, sand, and gravel, and local volcanic ash, in part with cover of soil and organic deposits

#### LOWER EOCENE

**IES SKUKUM** various felsic volcanic dykes, plugs, domes, laccoliths and flows (1) and (2)

#### EARLY TERTIARY

**ETN** *NISLING RANGE SUITE* medium to coarse grained equigranular to porphyritic rocks of intermediate composition (g), fine to coarse grained, equigranular and porphyritic granitic rocks of felsic composition (q) and felsic dyke rocks (f)

#### **MID-CRETACEOUS**

**mKW** WHITEHORSE SUITE grey, medium to coarse grained, generally equigranular granitic rocks of felsic (q), intermediate (g), locally mafic (d) and rarely syenitic (y) composition

#### PROTEROZOIC TO MESOZOIC

PMm UNDIVIDED METAMORPHICS dark purplish brown staurolite cordierite biotite hornfels with relict schistose texture; quartz-sericite-chlorite schist; minor quartzite (metamorphosed Jura-Cretaceous Dezadeash Gp.? and undivided Nisling assem.)

#### **DEVONIAN TO CRETACEOUS**

**PMW** *WINDY* oceanic assemblage of ultramafic rocks (1), greenstone (2), chert (3) and carbonate (4) and metamorphosed equivalents? (5)

#### **DEVONIAN - MISSISSIPPIAN**

**DMN NASINA** graphitic quartzite and muscovite quartz-rich schist (1), (3)-(5), and(?) (6) with interspersed marble (2) and probable correlative successions (7) - (9

# LATE PROTEROZOIC AND PALEOZOIC

**PPN** *NISLING* assemblage characterized by mica quartz feldspar schist (1) and abundant locally thick limestone members (2); (3) includes possibly equivalent strata northeast of Tintina Fault

#### 7.2 Alteration and Mineralization

No significant mineralization was located within the project area. A single rock sample (#275975) returned anomalous Mo (11 ppm) and Ag (0.7 ppm). The sample was of weakly gossanous carbonaceous quartzite containing minor disseminated pyrite in an area adjacent to a number of felsic sills and dykes. A representative grab soil sample (02MBSL-20) taken in an area of extensive gossanous dykes and sills returned anomalous concentrations of Mo, Pb, Zn, Ag, Sb and Bi.

#### 8.0 SILT GEOCHEMISTRY

A total of 34 standard (-80 mesh fraction) silt samples were taken from seven separate drainages in the Talbot project area (Figure 4). Comparison of this year's silt sample results with those for the RGS survey indicate the strongly anomalous levels in the Talbot area particularly with respect to the suite Ag-Cu-Pb-Zn-As-Mo (Table 8.1.1). Bismuth results also appear to be elevated, however, there are no Bi analyses in the RGS dataset for comparison purposes. The most anomalous results from RGS surveys were in French and Ian Creeks, but this year's data confirms that the most anomalous drainages lie immediately to the east and south of the 2002 camp location.

Silt Geochemistry Percentiles														
Percentile Level	Au (ppb)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)	Mo (mqq)							
75 <sup>th</sup> Talbot	5	0.7	78	44	282	24	4.3							
75 <sup>th</sup> (RGS)	4	<0.2	50	9	95	8	<2							
80 <sup>th</sup> Talbot	6	0.8	80	59	329	34	4.9							
80 <sup>th</sup> (RGS)	6	<0.2	57	10	102	9	<2							
85 <sup>th</sup> Talbot	6	0.9	81	61	436	36	5.0							
85 <sup>th</sup> (RGS)	8	0.2	66	12	111	12	<2							
90 <sup>th</sup> Talbot	7	0.9	99	61	457	44	5.5							
90 <sup>th</sup> (RGS)	1	0.3	77	14	123	15	2.0							
95 <sup>th</sup> Talbot	8	1.1	121	71	499	69	7.9							
.95 <sup>th</sup> (RGS)	29	0.4	97	20	159	22	2.0							
98 <sup>th</sup> Talbot	9	1.2	122	103	587	79	8.0							
98 <sup>th</sup> (RGS)	78	0.5	123	32	196	33	3.8							

	Table 8.1	.1
Silt Geor	chemistry	Percentiles

RGS data from Hornbrook and Friske, 1986)

#### 9.0 DISCUSSION AND CONCLUSIONS

Mapping and prospecting in the Talbot area defined a monotonous sequence of carbonaceous quartzites, lacking a volcanic component, and intruded by a various phases of felsic Nisling Range intrusive rocks. The objective of the exploration was to identify prospective stratigraphy for hosting VMS mineralization, but the apparent absence of any Devono-Mississippian age volcanics greatly lowers this potential. Another objective was to locate the source of the anomalous RGS geochemistry and confirm those with results from our own sampling. Silt sampling in 2002 did confirm and better defined the source drainages for the regional anomalies, however, prospecting and sampling did not identify any clear cause for the anomalous response. With the available information the best explanation is that the anomalous results are related to the extensive intrusive activity apparent in the area. The host quartzites are unlikely to be very reactive, but minor amounts of marble were noted in float and gossans are associated with the smaller intrusive bodies. The most anomalous drainages, south and east of the 2002 camp, cross through an area with extensive porphyritic rocks and gossans. It will require more intensive follow-up in this area to identify the source mineralization.

Evidence from this year's work indicates potential in the area for granite-related styles of

mineralization such as skarn, porphyry and base metal veins. The program did not identify any positive potential with respect to VMS-style mineralization. Bulk tonnage deposits do not present an attractive target given the remoteness of the Talbot area. Although the silt anomalies remain largely unexplained it is not recommended that further work be undertaken to investigate the granite related mineralization.

Respectfully submitted,

FESSION PROVINCE M. E. BAKNES BRITISH OSCIEN Mark E. Baknes, P.Geo.

EQUITY ENGINEERING LTD.

Vancouver, British Columbia December 2002

# **APPENDIX A**

# BIBLIOGRAPHY

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#### **BIBLIOGRAPHY**

Gordey, S.P. and Makepeace, A.J., 1999, Yukon Digital Geology, Geological Survey of Canada, Open File D3826.

Hornbrook, E.H.W. and Friske, P.W.B., 1986, Geological Survey of Canada, Open File 1362, Regional Stream Sediment and Water Geochemical Data, Southwestern Yukon, 115F (east half), 115G.

Muller, J.E., 1966, Geology of the Kluane Lake Yukon Territory, Geological Survey of Canada, Map 1117A.

# **APPENDIX B**

# **ROCK SAMPLE DESCRIPTIONS**

# MINERALS AND ALTERATION TYPES

AK	ankerite	AL	alunite	AS	arsenopyrite
AU	native gold	AZ	azurite	BA	barite
BI	biotite	BO	bornite	BT	pyrobitumen
CA	calcite	CB	Fe-carbonate	CC	chalcocite
CD	chalcedony	CL	chlorite	CP	chalcopyrite
CV	covellite	CY	clay	DO	dolomite
EN	enargite	EP	epidote	GE	goethite
GL	galena	GR	graphite	HE	hematite
HS	specularite	HZ	hydrozincite	JA	jarosite
KF	potassium feldspar	MC	malachite	MG	magnetite
MN	Mn-oxides	MO	molybdenite	MR	mariposite/fuchsite
MS	sericite	MT	marcasite	MU	muscovite
NE	neotocite	PA	pyrargyrite	PL	pyrolusite
PO	pyrrhotite	PY	pyrite	QZ	quartz veining
RE	realgar	RN	rhodonite	SB	stibnite
SD	siderite	SI	silicification	SM	smithsonite
SP	sphalerite	SR	scorodite	TR	tremolite
TT	tetrahedrite				

# **ALTERATION INTENSITY**

m	moderate	S	strong	tr	trace
vs	very strong	W	weak		

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				Roc	k Sample	Descriptior	IS				
	<u>Project</u>	Name:	Talbot Cree	k	Project:	RFM02-14	<u>NTS:</u>	115G/9, 15			
Sample Number: 275927 Talbot	Grid North: UTM 6861731 Elevation 3900	N ft	Grid East: UTM 622965 Sample Width:	E	Type: Float Strike Length Exp: True Width: Host : Rhyolite	Alteration: Metallics: >1%F Secondaries: mM	νΥ N	<u>Au (ppb)</u> 3 <u>Cu (ppm)</u> 6	<u>Ag (ppm)</u> 0.3 <u>Mo (ppm)</u> 3	As (ppm) 4 Pb (ppm) 30	<u>Bi (ppm)</u> < 3 <u>Zn (ppm)</u> 135
Sampled By: TB 11-Jul-02	Taken just above	camp in dr	y creek bed (Onion	Creek). Fe	elsic material.						
Sample Number: 275928 Talbot	Grid North: UTM 6861257 Elevation 4320	N N ft	Grid East: UTM 624107 Sample Width:	E	Type: Float Strike Length Exp: True Width: Host : Rhyolite	Alteration: sQZ Metallics: >1%F Secondaries: wJA	γ	<u>Au (ppb)</u> 2.7 <u>Cu (ppm)</u> 9	<u>Ag (ppm)</u> < .3 <u>Mo (ppm)</u> 2	<u>As (ppm)</u> 4 <u>Pb (ppm)</u> 15	<u>Bi (ppm)</u> < 3 <u>Zn (ppm)</u> 38
Sampled By: TB 11-Jul-02	l aken in main rigi	it fork of O	nion Creek above o	amp. Lots	of this material in creek.						
Sample Number: 275973 Talbot	Grid North: UTM 6861958 Elevation 4080	N N ft	Grid East: UTM 623839 Sample Width:	E	Type: Float Strike Length Exp: True Width: Host : Grey siliceous	Alteration: wCB Metallics: Secondaries: ?H2 s quartzite	:	<u>Au (ppb)</u> 0.8 <u>Cu (ppm)</u> 32	<u>Ag (ppm)</u> < .3 <u>Mo (ppm)</u> 2	<u>As (ppm)</u> 2 <u>Pb (ppm)</u> 7	<u>Bi (ppm)</u> < 3 <u>Zn (ppm)</u> 27
Sampled By: MEB 11-Jul-02	10x10 cm cobble	in creek. G	Grey translucent silic	eous phyli	ite-quartzite. Minor limor	nite on fractures. Possible	HZ, could be	sphalerite. Isolated.			
Sample Number: 275974 Talbot	Grid North: UTM 6862692 Elevation 5320	N N ft Dyke 035	Grid East: UTM 624781 Sample Width: i°/90°	E	Type: Grab Strike Length Exp: True Width: Host : Rusty-weathe	Alteration: wCL, w Metallics: trPY Secondaries: mG sring buff felsite	wMS E	<u>Au (ppb)</u> 3.1 <u>Cu (ppm)</u> 4	<u>Ag (ppm)</u> < .3 <u>Mo (ppm)</u> 4	As (ppm) < 2 Pb (ppm) 26	<u>Bi (ppm)</u> < 3 <u>Zn (ppm)</u> 16
Sampled By: MEB 11-Jul-02	>15 m thick felsite	e dyke. Fin	e-grained aphyric w	ith <1% lir	nonite after pyrite.						
Sample Number: 275975 Talbot	Grid North: UTM 6862576 Elevation 4920	N ft	Grid East: UTM 624268 Sample Width:	E	Type: Float Strike Length Exp: True Width: Host : Black carbon:	Alteration: wQZ Metallics: 3%P' Secondaries: mG aceous quartzite	Y	<u>Au (ppb)</u> 4.2 <u>Cu (ppm)</u> 54	Ag (ppm) 0.7 <u>Mo (ppm)</u> 11	<u>As (ppm)</u> 18 <u>Pb (ppm)</u> 5	<u>Bi (ppm)</u> < 3 <u>Zn (ppm)</u> 52
Sampled By: MEB 11-Jul-02	Typical carbonace	eous quart	zite but talus is gos	sanous an	d quartzite contains mine	or pyrite as cubes and bleb	os, weakly alig	gned with cleavage.			

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# APPENDIX C

# CERTIFICATES OF ANALYSIS

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#### 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE (604) 253-3158 FAX (604 253-1716

GEOCHEMICAL ANA SIS CERTIFICATE

Equity Engineering Ltd. PROJECT RFM02-14 File # A202501 Page 1 700 - 700 W. Pender St., Vancouver BC V6C 1GB Submitted by: Mark Baknes

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe ¥	As	U	Au	Th	Sr	Cd	Şb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na Y	K Y	W	Hg Sc	TL S	Ga
G-1 02MB-40 02MB-41	1.5 • 1.8 2.2	2.2 55.1 75.6	2.2 38.4 57.9	43 142	<.1 .5	3.8 42.1 55.0	3.7 14.6 19.2	501 939 1440	1.74 3.25 3.80	.6 9.9 12.3	2.6 1.3 1.5	.6 1.5 4.4	4.6 2.1 2.4	69 29 29	<.1 .8	<.1 .8	.2 .2 .2	35 74 75	.54 .44	.089	7 14 15	12.3 40.5 53.4	.57	226 262 361	. 126 . 091	1 <1 1	 .90 1.49 1.99	.077	.49 2 .10	2.4<.	01 2.5 02 3.4 01 4.9	.3<.05 .1<.05	5 6 6
02MB-42 02MB-43	2.5	70.7	34.5	167 78	.7	52.5 10.7	16.6 10.0	1112 755	3.90	13.7	1.9	3.7 1.8	2.5	33 16	.9	1.1	.3	71 125	.49 .31	.109	21 7	46.3 13.8	.80 .19	446 118	.081 .175	1 <1	1.84	.016	.14 .03	.2 .	03 4.3 01 .9	.1<.05	7
02MB-44 02MB-45 02MB-46 02MB-47 02MB-48	1.7 2.6 3.4 4.4 3.2	24.9 48.7 56.2 60.9 62.9	8.7 23.3 20.7 18.8 20.7	163 244 227 133 277	.3 .4 .5 .6 .5	26.4 35.6 32.5 32.7 37.1	12.0 15.1 13.5 27.9 16.4	468 942 880 2596 1135	2.56 3.10 2.82 2.59 2.63	6.4 17.4 18.8 25.3 18.6	1.0 2.1 3.8 2.4 4.3	1.2 4.2 8.9 6.5 4.1	1.5 2.6 3.1 1.9 3.2	35 28 26 26 26	.8 2.2 1.4 1.0 1.8	.3 .6 .5 .7` .5	.2 .4 .5 .4 .6	78 67 60 58 55	.44 .41 .37 .27 .32	.105 .099 .089 .097 .085	15 27 39 39 37	33.2 33.5 27.1 24.2 28.8	.59 .56 .47 .36 .46	179 211 136 180 117	.098 .085 .071 .061 .064	<1 <1 <1 2 <1	1.45 1.73 1.69 1.29 2.00	.021 .019 .022 .024 .021	.11 .12 .08 .10 .08	.1 . .3 . .2 . .2 .	02 2.7 03 3.5 03 3.0 04 2.1 05 3.0	.1<.05 .2<.05 .1<.05 .2 .09 .1<.05	6 6 5 6
02MB-49 02MB-50 RE 02MB-53 02MB-51 02MB-52	3.3 2.6 1.5 1.9 2.2	80.2 53.2 77.6 53.0 56.0	26.1 11.1 11.6 13.2 15.4	175 96 112 137 130	1.2 .9 .6 1.2 .5	52.8 32.2 71.6 32.9 39.7	17.5 11.6 25.6 10.4 13.6	1301 1082 1667 737 801	4.23 2.71 4.32 2.69 3.05	17.6 13.4 10.4 14.6 10.6	3.3 1.0 .9 3.9 1.8	5.8 3.2 3.7 4.4 1.8	2.1 1.4 2.0 .8 2.0	40 30 34 50 27	1.0 .8 .9 1.8 .8	.8 .8 .6 .6	.3 .2 .1 .2 .2	81 60 92 60 70	.63 .48 .68 .86 .50	.123 .084 .105 .105 .101	33 22 14 40 19	51.5 27.2 84.8 31.3 39.0	1.04 .46 1.41 .45 .76	356 337 362 251 222	.067 .044 .184 .045 .085	<1 <1 1 2	2.27 1.38 2.23 1.74 1.41	.019 .013 .017 .021 .015	.11 .08 .15 .10 .09	.1 . .1 . .1 . .1 . .1 .	05 5.9 04 3.4 03 5.9 06 3.4 03 3.1	.1 .06 .1<.05 .2<.05 .1 .09 .1<.05	7 5 8 6 5
02MB-53 02MB-54 02MB-55 02MB-56 02MB-57	1.6 4.0 1.3 2.6 2.8	76.7 71.3 55.5 66.5 71.6	11.5 28.3 18.7 22.4 46.3	109 184 113 163 395	.6 .9 .4 .6 1.1	69.9 51.0 58.9 44.8 72.8	23.8 20.3 22.0 15.9 18.3	1530 1836 996 1029 1131	4.28 3.83 4.07 3.63 3.67	10.4 14.3 9.8 12.2 11.6	.9 1.7 .6 1.3 2.0	4.9 3.0 1.5 3.1 5.2	1.9 2.0 1.9 1.6 1.7	33 34 27 29 37	.6 1.5 .6 .9 5.3	.5 .7 .4 .8 .7	.1 .2 .1 .2 .3	94 84 96 75 81	.73 .55 .58 .46 .52	.112 .112 .120 .090 .119	14 23 12 17 27	83.5 51.3 89.7 43.7 56.4	1.44 .85 1.59 .84 .79	349 318 347 240 457	.186 .077 .198 .068 .051	<1 <1 2 <1 <1	2.18 1.80 2.10 1.80 1.87	.016 .014 .020 .017 .018	.14 .11 .31 .09 .12	.1 .2 .2 .2 .2	02 5.4 05 4.6 01 6.8 04 3.8 04 5.0	.1<.05 .1 .07 .1<.05 .1<.05 .2 .06	7 7 8 6 7
02MB-58 02MB-59 02TB-17 02TB-18 02TB-19	2.6 4.0 5.0 5.1 4.9	58.0 62.2 78.2 79.8 80.3	61.6 26.9 60.7 61.3 67.8	285 174 471 461 449	.7 .6 .5 .4 .6	42.9 35.0 63.8 59.1 59.2	14.3 12.5 19.8 19.4 20.3	1236 1251 1530 1300 1408	2.97 3.16 3.87 3.69 3.89	9.2 23.3 34.8 34.2 36.3	1.7 2.3 1.9 1.8 1.9	6.7 4.4 10.3 2.1 3.0	2.2 2.6 2.7 2.7 2.5	26 31 27 25 25	3.8 1.3 3.6 3.3 3.1	.7 .8 1.2 1.1 1.0	.2 .4 2.0 2.4 2.2	69 68 77 72 79	.35 .58 .35 .31 .37	.095 .088 .112 .092 .100	18 89 14 13 17	33.8 37.3 38.3 35.8 40.4	.56 .63 .60 .61 .64	190 195 275 258 276	.066 .064 .061 .059 .067	<1 1 <1 1	1.36 1.71 1.25 1.23 1.41	.013 .015 .015 .013 .014	.10 .10 .12 .11 .12	.2 .1 .3 .2 .3	02 3.7 04 3.0 02 3.5 01 3.7 02 4.3	.1<.05 .1<.05 .1 .07 .1 .07 .1 .08	5 7 5 4 5
02TB-20 02TB-21 02TB-23 02TB-24 02TB-25	5.0 2.4 8.1 1.9 1.6	88.0 64.6 120.9 54.6 56.9	78.5 150.7 61.0 27.8 22.0	552 284 436 232 107	.7 .8 1.0 .5 .4	66.4 41.2 47.9 48.9 47.3	21.2 15.2 15.8 19.8 20.2	1624 1084 976 1094 1219	4.20 3.59 4.29 3.33 3.51	36.5 16.7 98.0 17.3 13.2	1.9 1.2 3.4 1.3 1.1	3.2 5.1 5.3 4.5 5.2	2.6 1.5 3.7 1.5 1.3	29 28 30 32 34	3.9 2.3 3.8 3.7 1.5	1.1 .9 1.4 .6	2.5 .5 5.1 .4 .3	87 77 60 69 78	.43 .47 .36 .44 .48	.108 .101 .110 .111 .123	18 12 35 14 14	40.4 39.8 29.4 42.9 42.1	.71 .66 .50 .75 .77	293 232 400 284 268	.072 .086 .022 .107 .119	<1 <1 <1 1	1.53 1.49 1.41 1.97 2.04	.016 .015 .015 .019 .017	.12 .12 .15 .18 .19	.3 .2 .3 .2 .2	.03 4.6 .03 4.3 .03 4.0 .02 3.8 .05 4.3	.1 .09 .1 .07 .2 .17 .3<.05 .3<.05	6 5 6 7
02TB-26 02TB-27 02TB-28 02TB-29 STANDARD DS3	1.6 .8 2.2 5.7 9.2	45.7 9.3 53.7 123.2 129.2	21. 4. 10. 31. 31.	203 231 3125 3655 2163	.5 .1 .5 .9	30.2 6.3 25.4 93.9 37.8	13.8 3.2 6.9 25.7 11.6	1317 97 229 6801 768	3.05 1.06 2.05 3.40 3.27	11.1 3.2 12.0 48.3 32.4	1.4 .2 1.3 2.1 6.3	3.1 1.0 3.2 7.3 19.8	.5 .1 .6 1.5 3.5	25 9 20 28 26	1.7 .1 1.4 24.6 6.1	.5 .2 .4 .7 5.0	.2 .1 .5 1.9 5.2	69 41 56 74 77	.32 .09 .25 .30 .53	.098 .026 .093 .105 .094	9 4 10 18 17	33.6 11.4 23.1 27.3 181.5	.47 .20 .35 .49 .60	154 91 410 562 141	.069 .062 .055 .055 .087	<1 2 <1 <1 2	1.60 .48 1.16 1.58 1.88	.017 .011 .015 .013 .032	.07 .04 .07 .10 .17	.2 .1 .1 .2 4.1	.05 2.9 .02 .8 .05 2.0 .05 3.1 .23 4.1	.1 .06 .1<.05 .1 .07 .2 .09 1.1<.05	5 4 5 6

GROUP 1DA - 30.0 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP-MS. UPPER LIMITS - AG, AU, HG, W = 100 PPM; MO, CO, CD, SB, BI, TH, U & B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM. - SAMPLE TYPE: SILT SS80 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUL 23 2002 DATE REPORT MAILED:

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Data / FA



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Equity Engineering Ltd. PROJEC: RFM02-14 FILE # A202501

Page 2

Data 🖡 FA

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Со ррт	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm p	Cd opm	sb ppm p	Bi opm p	V	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	8 ppm	Al %	Na %	к % р	W pm p	Hg s xpm pq	ic Tl mippmi	S X	Ga ppm
G-1 02TB-30 02TB-31 STANDARD DS3	1.5 8.0 7.9 9.7	2.7 120.9 104.4 123.2	2.6 35.9 35.2 31.5	44 213 241 160	<.1 .7 .6 .3	4.8 26.8 32.1 37.5	3.8 12.9 12.9 11.5	484 1007 1226 747	1.81 4.71 4.22 3.22	.6 70.6 68.7 32.6	2.1 1.6 1.7 6.3	.6 7.4 5.8 20.8	3.8 3.2 3.4 3.6	64 23 25 27	<.1 1.3 1.8 6.2	<.1 1.3 1.3 5.3	.1 2.5 2.7 5.4	40 60 61 78	.59 . .14 . .19 . .56 .	.086 .100 .095 .092	7 14 15 17	13.5 25.1 29.3 176.3	.51 .34 .41 .61	214 625 748 145	.124 .033 .041 .087	1 <1 1 1 1 3 1	.90 .21 .24 .93	.073 .018 .017 .033	.48 1 .14 .16 .16 4	.8 .5 .4	.01 2. .02 2. .03 3. .23 4.	.6 .3 .8 .2 .2 .2 .0 1.2	.05 .26 .20 .05	4 4 5 6
•					<u>Sar</u>	mple 1	type:	SILT	<u>ss80</u>	<u>60C.</u>																							** .,	
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All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

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					E	<u>Iqu:</u>	<u>ity</u>	Eng 700 -	<u>ine</u> 700	erin W. Pen	<u>lg</u> I der S	<u>.td.</u> t V	PR( ancouv	<u>)JE(</u> er BC	CT I V6C	<u>RFM(</u> 168	<u>)2 - 1</u> Submi	<u>4</u> tted	Fi] by: M	.e ‡ Iark B	A2	2025	02						Ĩ
MPLE#	Mo	Cu DDM	Pb	Zn	Ag DOM	Ni	Co	Min Mora	Fe %	As DOM DO	U A M DC	u Th	Sr Domin	Cd S	ib Bi	V	Ca %	P 1 % P	La Dim 1	Cr 1	Mg B % pp	a Ti m X	8 DDM	Al %	Na %	K % D	W Hg	) SC 1	ri s' an %
1 MBSL-20 · ANDARD DS3	1.3 2.7 9.7 1	2.1 50.0 23.2	2.0 38.9 31.5	43 242 160	<.1 .4 .3	4.1 46.7 37.5	3.8 24.4 11.5	485 1222 747	1.75 4.64 3.22	.7 2. 14.5 1. 32.6 6.	.8 .8 1. .3 20.	9 4.4 6 4.6 8 3.6	66 < 20 27 6	.1 <. .9 1. .2 5.	1.2 6.4 35.4	39 84 78	.60 .0 .22 .0 .56 .0	096 079 092	7 1 21 4 17 17	2.7 . 3.1 . 6.3 .	52 22 98 21 61 14	1 .127 2 .075 5 .087	/ <1 5 <1 7 3	.93 2.66 1.93	.082 .020 .033	.49 2 .11 .16 4	.3<.01 .2 .05 .0 .23	2.4 5 4.5 5 4.0 1	.3<.05 .2<.05 .2<.05
•	( L	GROUP JPPER	1DA LIMI	- 30. TS -	O GM Ag,	SAMF	PLE LE IG, W	ACHED = 100	WITH PPM;	180 MI MO, CO	. 2-2- ), CD,	2 HCL	-HNO3- BI, TH	H2O A	AT 95 & B =	DEG. 2,000	C FOR	ONE CU,	HOUR, PB, Z	DILU N, NI	TED T	0 600 AS, \	ML, /	ANALY , CR	SED B	Y ICP- 000 PP	MS. M.		
	-	SAMP	PLE T	YPE:	SOIL	S\$80	0 60C		•	•	Λ	•		•		•		$\hat{\Lambda}$	P			·	-	•	·				
DATE RECI	BIVE	D:	JUL	23 20	02	DAT	'E RI	EPOR:	г ма	ILED:	H	NY	'/*	Ζ	SIG	SNED	BY.	<u>ب</u> .	<u>h</u>		р. т	DYE, C	LEON	G, J.	. WANG	; CERI	IFIED	B.C. A	SSAYER
												V																	

	ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716 (If V002 Accredited Co.) GEOCHEMICAL AND SIS CERTIFICATE Equity Engineering Ltd. PROJECT RFM02-14 File # A202503 700 - 700 W. Pender St., Vancouver BC V6C 168 Submitted by: Mark Baknes																														
SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	v v	Ca %	P %	La	Cr ppm	Mg %	Ba ppm	Ti %	8 ppm	Al %	Na X	к х	bbw A	Aú* ppb
SI 275927 275928 275973 275974	<1 3 2 4	<1 6 9 32 4	<3 30 15 7 26	2 135 38 27 16	<.3 .3 <.3 <.3 <.3	<1 5 2 10 1	<1 1 <1 3 <1	11 262 41 155 30	.05 .84 .44 1.09 .71	<2 4 4 2 <2	<8 <8 <8 <8 <8	<2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <2 <	<2 16 8 <2 9	4 5 4 3 2	<.5 <.5 <.5 <.5	ও ও ও ও ও ও ও ও ও ও ও ও ও ও ও ও ও ও ও	ও ও ও ও ও ও ও	<1 <1 <1 7 1	.18< .02 .03 .03 .01	.001 .001 .001 .012 .001	<1 24 2 3 2	1 10 4 13 8	.01 .01 .03 .02 .01	5 283 566 36 21	<.01 <.01 <.01 <.01 <.01	ও ও ও ও ও ও ও	.02 .23 .41 .12 .27	.56 .06 .07 <.01 .10	.01 .14 .16 .05 .14	<2 2 2 2 3	3.0 3.0 2.7 .8 3.1
275975 STD DS3	11 9	54 130	5 31	52 160	.7 .4	29 36	3 11	55 784	1.66 3.29	18 30	<8 <8	<2 <2	<2 5	24 30	<.5 5.7	<3 6	<3 6	13 82	.29 .56	.198 .095	8 17	19 193	.09 .59	443 161	<.01 .09	ব ব	.59 1.83	.01 .05	.16 .17	2	4.2 22.0
GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCL-HW03-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES. UPPER LIMITS - AG, AN, HG, H = 100 PPH; HO, CO, CD, SB, BI, TH, U & B = 2.200 PPH; CU, PB, Z4, NI, NN, AS, V, LA, CR = 10,000 PPM. ASSAT RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZU AS >1 X, AG > 30 PPH & AU > 1000 PPS - SAMPLE TYPE: ROCK R150 GOC AU* IGNITION BY ACID LEACHED, ANALYZE BY ICP-NS. (10 99) DATE RECEIVED: JUL 23 2002 DATE REPORT MAILED: $Ayy b/O2$ SIGNED BY C																															

# APPENDIX D

# **GEOLOGIST'S CERTIFICATE**

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\_\_\_\_\_ Equity Engineering Ltd. \_\_

# **GEOLOGIST'S CERTIFICATE**

I, Mark E. Baknes, of 7579 Westholme Road, Westholme, in the Province of British Columbia, DO HEREBY CERTIFY:

1. THAT I am a Consulting Geologist with offices at Suite 700, 700 West Pender Street, Vancouver, British Columbia.

2. THAT I am a graduate of the University of British Columbia with a Bachelor of Science degree in Geology and a graduate of McMaster University with a Master of Science degree in Geology.

3. THAT I am a Professional Geoscientist registered in good standing with the Association of Professional Engineers and Geoscientists of the Province of British Columbia.

4. THAT this report is based on fieldwork carried out by me or under my direction during June-and July 2002 and on publicly available reports. I have examined the property in the field.

DATED at Vancouver, British Columbia this \_\_day of January, 2003. PROVINCE M. E. BAKNES BRITISH COLUMBIA Mark E. Baknes, M.Sc., P.Get SCIEN

YUKON ENERGY, MINES & RESOURCES LIBRARY P.O. Box 2703 Whitehorse, Yukon Y1A 2C6

ETN 6864000m N 6863000m N **DMN** ■ 02MB-44 24.9/8.7/163/1.7. 48.7/23.3/244/2.6 , FP 1 2000 51000m N \$>56.2/20.7/227/3.4 ■02TB-24 54,6/27.8/232/1 9 FP+QZTc XQZTc+FP ■ 02MB-47 60.9/18.8/1**3**8/4.4 QZTc+PP ■ 02MB-48 62.9/20,74277/3,2 × QZTc+PHY  $\times \times$ Sec. P DOOm N  $\times \times \mathbb{C}$ Carlo Star W. Art the the the factor for the factor to the state of the in a second s FP FP+QZTc FP 1. SCHqb SCHqb GRT GRT FP 0m N er in a start of the second and all the second





# **RIMFIRE MINERALS CORPORATION**

# TALBOT PROJECT Project Area Geology, Sample Locations and Silt Geochemistry

	Date:	January 6, 2003	Scale:	1:10,000	Figure	
EUITY	U.T.M. Zone	UTM7 - NAD27	Mining District	WHITEHORSE	4	4
	N.T.S.	115G/09, 15	State/Province	YUKON		

Intrusive Rocks

Metamorphic Rocks

Carbonaceous grey and black phyllite and shale

Quartz-feldspar-hornblende porphyry Equigranular granite to granodiorite

Early Tertiary (Nisling Range Suite)

Feldspar porphyry

QZTc Carbonaceous quartzite

Quartz-feldspar porphyry

QFHP Quartz-feldspar-hornblende porphyry

SCHqb Quartz-biotite ± chlorite schist-gneiss

LITHOLOGIES

QFP

GRT

FLS

PHY

**REGIONAL UNITS** onian-Mississippian (Nasina) Graphitic quartzite and muscovite quartz-rich schist, may also include biotite schist and or gneiss.

ETN Medium to coarse-grained, equigranular to porphyritic rocks of intermediate to felsic composition

Fine-grained felsite may include aphyric felsic dykes and or quartz-feldspar metasomatized quartzite

LEGEND



