

ASSESSMENT REPORT

On

PROSPECTECTING

GM CLAIMS Hellroaring Creek Area

FORT STEELE MINING DIVISION

NTS 82F50

Latitude 49' 28 deg. N Longitude 116' 10 deg. W

By TOM KENNEDY, Prospector October, 2002

GEOLOGICAL SURVEY BRANCH



TABLE OF CONTENTS

1.00 INTRODUCTION

. . . .

	Page						
 1.10 Location and Access 1.20 Property 1.30 Physiography 1.40 History of Previous Exploration 1.50 Purpose of Work 							
2.00 GEOLOGY	1,2						
3.00 PROSPECTING	2,3						
4.00 CONCLUSIONS	3						
5.00 STATEMENT OF EXPENDITURES							
6.0 AUTHOR'S QUALIFICATIONS	4						
LIST OF ILLUSTRATIONS							
Figure 1. Property Location MapFigure 2. Claim MapFigure 3. Geophysics MapFigure 4. Prospecting Map	5 6 7 8						
LIST OF APPENDICIES							
Appendix 1.Sample DescriptionsAppendix 2.Sample Assays	9 10						

1.00 INTRODUCTION

1.10 Location and Access

The GM claims are centred near 49'28 deg. N latitude 116'10 deg. W longitude approximately 28.5 km west of Cranbrook and 15 km south of St. Marys Lake (Fig.1). Access to the property is gained by travelling West of Kimberley on St. Marys Lake road 16 km, then travelling 1 km to Hellroaring Cr logging road, and then 21 km on haul road to property boundary.

1.20 Property

The GM claims are a contiguous block of 6 two post mineral claims owned by Super Group Holdings Ltd. (Fig.2).

1.30 Physiography

The GM claims are located within the Moyie Range of the Purcell Mountains, in moderately rugged mountainous terrain between the south western slope of Grassy Mtn. and Hellroaring Creek. Forest cover is a mix of lodge pole and alpine pine, spruce and balsam and alpine larch at higher elevations. The property is situated between 1600m and 2100m in elevation.

1.40 History of Previous Exploration

This area has been held under tenure by individuals and junior mining companies at various times over the past 25 years.

1.50 Purpose of Work

The purpose of the 2001 Prospecting program was to investigate a magnetic anomaly highlighted by the 1970/71 government aerial survey (Fig. 3).

2.00 GEOLOGY

The GM claims are underlain by rocks of the Middle Proterozoic Creston and Kitchener Formations. The Creston formation consists of thin to medium/thick bedded mauve, grey, green and blue siltstones, and quartzite. Narrow intervals of mud chip breccias consisting of argillite rip-up clasts in a coarse clean white quartzite matrix are present through out the middle to upper parts of the formation. Green argillite is dominant near the top of the Creston formation with some dolomitic units also encountered. Disseminated magnetite within the blue to grey coloured members was also noted. The Kitchener formation is comprised of thin bedded green to khaki buff weathering dolomitic siltstone and argillite. Occasional molar tooth or algal mat horizons were also noted. Both formations on the property generally strike to the northeast and dip steeply to the west.

3.00 PROSPECTING

A 400 m by 250 m exposure of granite was found on the property roughly in the middle of the aerial magnetic anomaly. Quartz veins of two main trends: 80 and 10 degrees cut the granite. Both of these vein sets contain pyrite and limonite. The stock along the margins of the veining is albitically and sericitically altered with disseminated pyrite and limonite. Carbonate alteration /flooding of the granite was also noted adjacent to the veining as the stock would readily fizz when weak HCl acid was applied. Massive sericite mica is also common along the margins of the veining. Galena was found in two locations in the granite within the 10 degree trending veins. Galena was also found in one location within milky quartz float. A third fracture and vein set was also encountered within the granite this being a flat fracturing which was defined by hairline sheeted quartz carbonate pyrite veinlets. The granite hosting this fracturing was also intensely carbonate altered with clots of earthy brown carbonate disseminated through the granite matrix.

Along the southern margin of the stock a large quartz vein /breccia zone was found. The zone is up to 5m in width and trends 20 degrees dipping steeply to the west. It consists of milky white quartz with abundant pyrite and limonite along the margins of sediment and intrusive inclusions. Rare amounts of galena were found within the zones of most intense pyritization.

The Creston sediments surrounding the stock are altered to a weak biotite hornfel. The upper part of the Creston and lower member of the Kitchener formations close to the stock have been altered to a fine grained, white and green banded skarn. Some disseminated pyrite was noted in these skarns as well as rare chalcopyrite.

Quartz encountered within the surrounding sediments consists of two main styles: Large bull quartz veins, and zones of narrow quartz stringers.

The bull quartz vein zones typically consisted of white quartz with chlorite and/or hematite with rare limonite or iron staining. These veins ranged in size from 30cm to 5m in width with the narrower veins commonly occurring in clusters. The surrounding sediments were often chloritically altered with some weak iron staining observed. Orientations of this veining were commonly between 85 and 120 degrees.

The narrow quartz stringer zones consisted of vuggy milky to crystalline quartz veinlets usually not over 1 cm in width with abundant fresh pyrite and black limonite, roughly striking parallel to bedding (steeply northeast). The margins of the veins are intensely sericitically altered and silicified with abundant fine-grained pyrite as well as hematite disseminated within the sediments. Zones of stringers were encountered as single quartz veinlets to zones of multiple veining over 1 to 2.5 meters in width. These veinlets would also form quartz matrix breccia zones within the sediments around areas of kink folding.

Along northern contact with the stock a series of flat lying crystalline quartz veins were found. These veins contained massive sericite mica and large fresh pyrite cubes and molybdenite in quartz crystal vugs. The surrounding sediments were limonitically altered with disseminated pyrite cubes noted common.

During the prospecting program 20 rock samples were collected and analysed; their locations are shown of Figure 4., with descriptions and analysis found in Appendix 1 and 2 respectively. Moderately anomalous gold was found within veins cutting the sediments along the southeastern contact of the stock (sample GR-13). Anomalous gold values were also obtained from narrow limonite pyrite bearing veins cutting the granite (samples GR-4 and GR-14). Elevated molybdenum was obtained from veins within the sediments surrounding and out board of the stock.

4.00 CONCLUSIONS

The 2001 Prospecting program was successful in finding a previously unmapped, veined and highly altered granitic intrusion roughly coincident with the aerial magnetic high. Anomalous gold was obtained from samples associated with veining within and surrounding this intrusion and follow up work should be conducted to determine if occurrences of more economic significance exist.

5.00 STATEMENT OF EXPENDITURES

	тот	AL COST	\$1900.00
Vehicle		3 days @ \$50.00/day	\$150.00
	Tom Kennedy	1 day @ \$250.00/day	\$250.00
Prospecting:	Tom Kennedy Mike Kennedy	3 days @ \$250.00/day 3 days @ \$250.00/day	\$750.00 \$750.00

6.00 AUTHOR'S QUALIFICATIONS

As author of this report, I Tom Kennedy certify that:

- 1. I am an independent prospector residing at 2290 De Wolfe Ave., Kimberley, B.C.
- 2. I have been actively prospecting in the East Kootenay district of B.C. for the past 14 years, and have made my living by prospecting for the past 11 years.
- 3. I have been employed as a professional prospector by major and junior mineral exploration companies.
- 4. I own and maintain mineral claims in B.C. and have optioned numerous claims to various exploration companies.

Dated at Kimberley, B.C. October 2, 2002

Tom Kennedy, Prospector









APPENDIX 1

SAMPLE DESCRIPTIONS

Sample number	Description
GR-1	Creston float with narrow pyrite rich quartz veinlets
GR-2	Quartz breccia with limonite and fresh pyrite
GR-3	Silicified and sericitically altered sediments with disseminated pyrite cut by narrow quartz veinlets with pyrite and limonite
GR-4	Altered granite with abundant sericite and limonite; some narrow quartz veinlets
GR-5	Milky quartz float with limonite pyrite and galena
GR-6	Large blocks of quartz breccia material with limonite and pyrite
GR-7	Silicified and sericitically altered sediments with disseminated pyrite and narrow quartz veinlets
GR-8	Narrow quartz veinlets with pyrite and limonite in silicified sediments with hematite on fractures
GR-9	Limonite and pyrite rich quartz vein with sericite mica along the edge of a large bull quartz vein
GR-10	Silicified sediments with disseminated fresh pyrite and hematite cut by narrow quartz veinlets with pyrite and limonite
GR-11	Ouartz float with limonite and sericite
GR-12	Quartz breccia material with limonitically altered sediments and quartz
GR-13	Limonite rich micaceous sediments cut by narrow limonite bearing quartz tourmaline veinlets
GR-14	Zone of quartz veining in granite with pyrite and limonite within veinlets and granite; brown carbonate alteration of granite
GR-15	Zone of flat sheeted fracturing in granite with narrow quartz veins with limonite: brown carbonate alteration of granite as well as a green alteration of feldspars
GR-16	4 inch wide quartz vein in granite with pyrite and limonite; 10 degree strike
GR-17	Granite float cut by 3 to 4 inch wide limonite rich quartz veins
GR-18	Quartz vein in granite with limonite and pyrite; brown carbonate alteration of granite
GR-19	Narrow quartz vein in granite with pyrite limonite and galena.
GR-20	Pyrite and limonite with rare galena along intrusive and sediment inclusions within 5m wide quartz breccia zone

, yCl	ME ANA (ISO	LYTIC 9002	AL L Acc	ABOR	ATO Ltod	RIES Co.	LTD)).	:	852	B.	HAST	CING	IS S	т. [.]	VAN	ເດຍ	VER	BC	V62	A 18	.6 F	P	HON	2(60	4)25	53-3	158	Fax	(604) 253	-171	6	
4	Æ							<u>S</u>	upe 1805	G <u>r G</u> · 131	rou	ip F	1101 1010	din Inn			313 : <u>d.</u> vic 5	, CI F: 11	ile Subm	⊥r⊥' ∦. itted	A10	Ε 222 D.ι.	4 Pighi	n								4	Ê	
	SAMPLE	#	Ho	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm p	Mn pm	Fe X	As ppm	U ppm	Au ppm	Th ppm p	Sr Spm	Cd ppm	Sb ppm	Bi ppm (V (ppm	Ca X	PL Xpp	a Cr xn ppn	Mg X	Ва ррп	Ti X pp	8 / m	AL N X	la K % X	W ppm	Au Pf	• • b		:
(114	10			-20	7	07.11	- 22	107									040 040	56 10 - 1	4 4 2 4 4 7	- 01	- 55-m	04	6	760	5 . 57 17 05		-1040			APPE SAV
				17	30855	10 74		10 7	11	30 20	/ 51	11		ده. ده	- 1	2.	2.1	1 	16	د م م ارد	01 - 0 01 - 0	10	7 7 7 7) <u>17</u>) 08		01	6 /3	17	02 1 ⁴					APLE A
					426											-	-			40	01 . 04			5 :01 6 - 01 6 - 01		.01 .01		19 . 22 .	07 . 2 04 7 01 0			.0		2 55AY5
••	-GR-11		21	13	133	4	<.3	7	1	36	.99	12	8> \$	<2	<2	4	<.5	3	ري 	2<.	.01 .0	013	3 5	8<.01	42<	.01	< <u>,</u>	. 80	02 .0	8 6 —		. >		l
	STAND	ARD DS3	10	126	45	5 145	.3	38	13	866	57 3.31	3	1 <8	<2	4	33	5.3	5	6	81	.55 .	094	21 20)1 .59	> 150	.10	<3 1	.73	02.1	7 4	25	.0		•
GR• GR• GR•	1 2 3		3 45 22	4 11 7	18: 10: 2:	3 5 2 30 8 3		9 9 2 3 1	8 2 3 <1 1 1		58 6 58 6	.28 .01 .79	<2 < 2 < 3 <	 	2 8	B 7 11 6	1 <. 2 <. 3 .	2 < 2 < 2 <	3 3 3 <	5 2 6 14 3 1	<.01 .01 .01	.01	14 23 78 9 06 11	20 37 32	.03 .02 .02	47<. 50<. 55	01 01 01	3. 3. 3.	34<.0 21<.0 20 .0	1 .23 1 .08 3 .15	2 <2 4	9.0 5.8 2.8		
GR - GR -	4 5		8	4	8 1492	0 15 3 267	i <. 7 16.	.3 .0 1	4 1 3 <1	80	87 1 59 1	.06 .07	4 -	<8 < <8 <	2 1] 2 4 2	34	3. 52.	2 4	3 6 *	3 8 6 <1	.67 .02	2.0	69 40 29 3	5 14 5 32	.07 .01	118< 64< 20	.01 .01	3. <3.	.61 .0 .09<.0 .71<.0	1 .42	40 8 42	65.3 101.7	- -	
GR GR GR GR	6 7 8 9 10		23 69 12 52 64	5	7 1 13	5 2 8 4 5 4 7 1 5 5	5 . 4 <. 1 <. 9 .	.4 .3 1 .3 1 .3 1	8 4 1 4 2 5 5	2 1 1 1 1 3	59 1 40 1 62 2 40 1	.42 .80 2.40	<2 <2 <2 <2 2	 <8< <8< <8< <8< <8< <8 <		3 5 3 8	5 «. 5 «. 2 «. 8 «.	2 < 2 < .2 <	3 3 3	3 3 3 3 3 3 4 3 4 4 4 4 4 4 4 4 4 4 4 4	.0	1.0 1.0 1.0	12 1 09 1 40 10 2	1 29 7 17 7 29 4 17	.03 .04 .13 .07	175< 87 15< 406	.01 .01 .01 .01	3 3 3 3	.26<.0 .29 .0 .37 .0 .36 .0	11 .20 13 .26 11 .14 12 .26	4202	2.4 1.5 1.5		
GR GR GP	-11 not -12 -13	receive	d 5	- 8 5 8	1 <u>6</u>	5 <u>7</u> 15 1	- 8 8 <	.4 .3	- 12 6	1 3	86 77	1.04 1.37	5	<8 <8	- <2 <2	- 3 1 3	19 <. 4 <.	.2 4	- 3 -	3	2 .0 2 .0	- 1 .0 1 .0	10 13	 5 29 9 25	.02 .01	- 38 28<	.01	<3 <3	.21 .(.16<.()1 .14)1 .11	6 2 4	4.0	5 7 7	
	-	Ho ppm j	Cu ppm	Pb ppm	Zn ppm	Ag ppm j	Ni ppm p	Co opm	Mn ppm	Fe X	As ppm	U ppm	Au ppm	Th ppn	n ppp	r m p	cd pon p	Sb xpm	Bi ppm	V ppm	Ca X	р Х	La ppm	Cr ppm	Mg X	Ba ppm	11 X	в ppm л	AL X	Na %	к Х	ppm 	ppb	4
τ)			6	<3	5	<.3	1	<1 	6 (30)	.US 	<2 	<8	~2	< /	2 1 1 1	4 <					. 14<	.001			04	-110	-,01		.01		.01		100.0	
,					25				<u>, 17</u>	1.58		11	2 		7 <u></u> 5			4	-4	20	<u></u>	084 070	20	17	, <u>, , , ,</u>	320	<u>40</u>	3	88	04 		2	16.9 20-14	
				63					724	1 20.											77			17	- 01	130	< 01				33	54		
x = -0 5R - 14 5R - 15 5R - 16 5R - 17		2 2 5 47	8 6 9 74	18 20 28 888	17 34 45 78	<.3 <.3 <.3 .9	3 4 4 5	3 4 1 2	713 697 152 153	.95 1.48 1.32 1.45	<2 <2 11 11	<8 <8 <8 <8		2 2 1 2 2 1	9 3 7	57 26 23 14	.2 .3 <.2 .2	<3 <3 <3 15	3 3 3 3	2 8 3 4	1.44 .37 .02 .07	.077 .102 .024 .072	26 44 26 42	17 16 19 19	.04 .05 .02 .03	430 519 70 130	<.01 <.01 <.01 <.01	< < <	3 .40 3 .50 3 .21 3 .41) .02 6 .04 7 .01 2 .01	.32 .37 .23 .30	3 2 4 4	109.3 21.3 45.6 7.8	
3R - 18 3 R - 19 19 - 20	9 0	5 5 5	16 9 8	23 2362 216	18 31 26	< 3 1.2 < 3	7 4 4	5 5 1	510 438 94	1.93 1.76	<2 2 7	<8 <8 <8 <8	3 < 3 < 7 <	2 2 1 ?	6 13 5	17 20 23	*.2 .6 <.?	उ उ	उ उ	5 6 2	.28 .18	.062 .081 .201	21 14 41	21 18 25	.04 14 03	176 234 280	<.01 .03 <.01	<	3 .3 4 3 .49	6 .03 9 .02	.22 .30	4 5 219	7.2 9.5	

B 10