

**Geological Report** 

-- on the --≮. J P¶1 to 4 Claims

-- located --

NTS: 82E map sheet 2 west Geographic Coords: 118 59W, 49 01N 4 km south of Rock Creek, B.C.

Work Completed: September 21 - 25, 2000

Prepared by: John R. Kerr, P. Eng. #1702 - 438 Seymour Street OGICAL SURVEY BRANCH Vancouver, B.C. V6B 6H4

January 20, 2001

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#### INTRODUCTION

The PJ Claims were first located for Canim Lake Gold Corp. as the KPJ Claims in 1994 to investigate the existence of skarn gold deposits similar in nature to the Crown Jewel deposit in the State of Washington, USA. The Crown Jewel deposit is operated by Battle Mountain Gold Corp. and is located 6 km south of the PJ Claims in an identical geological setting. Canim Lake Gold Corp. completed a work program on the property in 1994 and 1997 consisting of geology, geophysics and geochemistry. The model for a similar skarn gold deposit was interpreted from these programs.

The Crown Jewel is a typical skam gold deposit at and near the contact of an intrusive stock. Skarn mineralization is found along a preferred calcareous bedding plane, with intense skarn alteration at the contact. This contact area is strongly magnetic, and was mined for its iron (copper) content in the early 1900s. Exploration in the 1980s developed gold in the same limey bedding plane, however more distal to the contact. The intensity of skarn alteration wanes as the distance from the contact increases. Reserves are stated at 8 million tons grading 0.18 oz/ton gold.

A similar geological model is presented on the PJ 1 - 4 claims. A mineralized structure was identified in the 1997 program that was highly altered, oxidized and weakly mineralized. This zone coincides with a significant geochemical anomaly, with gold values up to 77ppb gold. This zone was sampled in detail in 1998 (not part of the 2000 assessment costs).

The 2000 program consisted of re-establishing important lines of the 1994 grid, in order that outcrop areas could be mapped in detail and sampled. The 1998 sampling was also tied into this grid. Several geochemical anomalies detailed from the 1997 soil sampling program were investigated, geologically mapped and sampled. Due to budget constraints, only three of these samples were analyzed for gold. A total of 2.5 days of field work and 1 day of mob/demob were completed between September 21 - 25, 2000. This report summarizes the results.

#### LOCATION, ACCESS, TOPOGRAPHY, VEGETATION

The Rock Creek project area is contained in a 700 square kilometer area centered in Rock Creek, in south/central British Columbia ranging from the border with the United States of America to twenty kilometers north, and from the towns of Osoyoos in the west to Greenwood in the east. The area encompasses all known surface exposures of the late Paleozoic Anarchist group of rocks, and was selected for this reason.

Access is excellent throughout the project area, with well-travelled highways and logging roads existing along all major drainages. Highway #3 crosses the entire project area in an east-west direction from Osoyoos to Greenwood. Highway #33 follows the Kettle River in a north-south direction, north of Rock Creek. The Baldy Mountain ski development provides good road access to the northwestern portion of the project area. Updated road maps exist only at the Ministry of Forests offices in Penticton and Grand Forks. Other public topographic maps are very outdated regarding access roads.

Much of the southern portion of the area is on deeded farmland, and contains cultivated fields and grazing areas. The farmlands have been plaqued by hunters and sightseeing trespassers over the years, the owners being very sensitive to any signs of property trespass.

The area is located within the eastern portion of the Interior Plateau, with plateau elevations ranging 900 - 1300 meters asl. In the plateau country, the nature of the topography is gently sloping and rounded hills that have been only slightly affected by the recent periods of glaciation. The two steeply carved valleys of the Okanagan River in the western portion of the area and the Kettle River in the central portion provides very steep valley walls, with elevation down to 300 meters asl. Local mountains in the northwestern portion of the area, including Baldy Mountain, range up to 2000 meters asl.

Vegetation is variable throughout the project area, ranging arid-semiarid, desertlike terrain in the Osoyoos area to grassland and heavy timber in the more elevated country. Timber includes large stands of merchantable fir, tamarack, pine, hemlock, and balsam, with small local occurrences of cedar and poplar. A very high percentage of the area has been subjected to clear-cut and selective logging methods.

The PJ 1 - 4 claims are located 4 km south of the village of Rock Creek (82E/2W). Access is possible by all weather gravel road south of Highway #3 south of Rock Creek a distance of 8 km. Elevations on the claims range 1000 - 1200 meters (asl).

#### <u>CLAIMS</u>

The property consists of four two-post claims, all located in the name of John R. Kerr. Details of the claims are as follows:

Name: No. Units: Tenure Numbers: Expiry Dates:  $\downarrow P$  1 - 4  $\downarrow Total - 4$ Greenwood  $\checkmark 373080 - 373083$   $\downarrow P$  1 and 3 October 22, 2003  $\downarrow P$  2 and 4 October 22, 2004

#### **HISTORY of WORK**

Historical documents indicate very little work has been completed on the PJ 1 - 4 claims prior to 1994. Two or three short adits, probably driven in the early twentieth century, were located within two km of the existing claims, and appear to have been following veins with minor content of gold.

The general Rock Creek area has been subject to several waves of mining exploration and prospecting since the mid nineteenth century. Placer deposits were first recognized at the confluence of Rock Creek and the Kettle River. These were traced to the Camp McKinney and Dalton gold camps early in the twentieth century. In the 1940s and 1950s, continued prospecting in the area located lead/zinc/silver deposits north of Rock Creek, and several interesting Co/Ni occurrences associated with ultramafic stocks throughout the area. Uranium was prospected for in the 1970s, locating several; radioactive occurrences.

The modern day gold rush commenced in the late 1980s, with the discovery and development of the Crown Jewel deposit south of the 49th parallel. This precipitated a large number of claims located along the border, including the KPJ claims and the Ket claims on which skarn gold mineralization has been found. Over the past five years, work in the area has dramatically been reduced.



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#### 2000 FIELD PROGRAM

The 2000 field program was completed on September 22, 23 and 24, 2000 and consisted of re-establishing grid lines over pertinent area. The objective was to investigate geochemical anomalies detected from a 1997 soil sampling program. The area and nature of all work is shown on Figure 3.

All outcrop areas were tied into grid lines and geologically mapped. Samples collected in 1998 were tied into grid lines and locations are indicated on attached map. Results of gold analyses are also shown in Appendix B, however the costs of these analyses are not included in 2000 costs as the samples were collected and analyzed earlier.

Four rock chip samples of altered and oxidized rock from anomalous areas to analyze for gold content. Only three samples, KPJ 2 - 4 were submitted for analyses. Samples were submitted to the facilities of Bondar-Clegg for Au plus 32 element ICP analyses. Details of the analyses are shown in Appendix B along with the results.

Gold values were all insignificant, however KPJ - 2 was obviously collected from a small ultramafic plug as the sample contained significant contents of nickel, cobalt and chromium. No other elements of significance were detected from the results.

#### **GEOLOGY and MINERALIZATION**

The principle and earliest rock group along the US border in the Rock Creek area is the Permian/Triassic Anarchist Group of rocks, the main unit being felsic to intermediate volcanic flows, breccias and tuffs. Interbedded with the volcanic sequences are sedimentary rocks consisting of shales, sandstones, quartzites and limestone. Locally, this limestone unit is referred to as the Brooklyn limestone. Late Mesozoic intrusive stocks and sills intrude the Anarchist volcanics, ranging in composition from acidic granites and granodiorites to gabbros and ultramafics.

A relatively large (~24 sq km) granodiorite stock straddles the US border, 80% of this area in the United States. The northern tip of the stock is located within 500 meters of the southwestern corner of the PJ claims. This same stock is the hydrothermal influence of the Crown Jewel skarn gold deposit.

The dominant rock type mapped on the PJ claims is intermediate, green andesites of the Anarchist Group. Locally the rock units can be subdivided into tuff and flow beds, however no attempt to interpret these beds was done with the data collected to date. At one location, KPJ - 2, the collected altered rock was likely part of a small ultrabasic plug due to the high Ni/Cr/Co contents. This rock type was not identified in the field. Some evidence of sedimentary units were located in the northeastern portion of the property. To the east of the property, on the Doll claims, a large dolomite occurrence exists, currently being mined. This is believed part of a large limestone horizon, probably related to the Brooklyn limestone.

Measured strikes and dips are not easily recognized in the field, however, where measured, are dominantly northwesterly trending, with steep dips to the southwest.

The structural complexity of the Anarchist Group is the result of several periods of regional metamorphism and deformation. Three major lineament trends have been identified in the claim area. North to northwesterly trends possibly reflect bedding attitudes and subparallel structures related to bedding. North/northeasterly trends are related to vein and shear structures. Northeasterly trending fault zones are apparently the most recent structural event, and have caused most offsetting of bedding units and earlier structures.

Gold mineralization has been identified in anomalous contents up to 2400 ppb gold on the PJ claims. This is found in a small structure just to the north of the area mapped in 2000.

What is considered to offer the most economic potential is the oxidized and altered shear zone located on the PJ 2 and 4 claims (see figure 3). This zone stands up as a bright gossan, and is exposed in outcrop over a strike length of 350 meters and widths of up to 20 meters.

The structure is assumed parallel to general bedding, and dips are not obvious, however believed steep. A general description of the shears are a red/orange/brown ferruginous mass with secondary brecciation and bleached clay/carbonate alteration. Analysis of 22 rock chips collected from the zone indicate anomalous contents of gold ranging from trace to 18 ppb. The mapped zone corresponds to a soil anomaly, with values up to 77 ppb gold, and suggests the zone extends an additional 200 meters to the southeast. A northeasterly trending fault zone has been interpreted that apparently offset the southeastern extension of the zone.

Elsewhere in the area mapped, alteration and suspected mineralized zones were not discovered to any significant extent. Those that were of apparent interest were sampled, however did not reveal mineralization of interest.



#### **CONCLUSIONS and RECOMMENDATIONS**

Additional zones of mineralization were not located or identified during the 2000 program, however a better understanding of the geology and nature of mineralization was ascertained. Although economic contents of gold have not been found in surface samples, that does not negate the possibility of gold occurring in economic contents at depth, nearer the contact of the favourable granodiorite intrusion. For this reason, it is recommended that a two or three hole reverse circulation drill program totalling 250 meters be completed intersecting the projected zone at depths of 50 - 70 meters. If economic contents of gold were encountered, a more extensive drill program would be in order.

The reason for the geochemical soil anomaly in the other three target areas remains unexplained. Further detailed soil sampling may be in order to attempt to explain these anomalies.

Submitted by:

P.Key John R. Kerr

January 20, 2001

# Appendix A - Cost Statement

### Cost Statement:

Fieldwork: John R. Kerr, P. Eng. 3.5 days @ 400 per day	\$ 1,400.00
Vehicle Costs: 760 km @ 0.35/km	266.00
Room and Board: 3 days @ 60/day	180.00
Assays: 3 samples @ 16/sample	48.00
Report:John R. Kerr, P. Eng. 1 day400Copying and binding_25	425.00
Total	\$ 2,319.00

Appendix B - Geochemical Lab Reports

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Geochemical Lab <u>Report</u>

REPORT: VOO-01838.0 ( COMPLETE )

CLIENT: JOHN R. KERR & ASSOCIATES LTD. PROJECT: NONE GIVEN

#### REFERENCE:

SUBMITTED BY: J. KERR DATE RECEIVED: 25-SEP-00 DATE PRINTED: 28-SEP-00

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DATE APPROVED ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION	EXTRACTION	METHOD		UMBER OF LOWER ANALYSES DETECTION	EXTRACTION METHOD
000927 1 Au30 Gold	3	5 PP8	Fire Assay of 30g	30g Fire Assay - AA	000927 37 s s - 1C30	3 0.002 PCT	HF-HNO3-HCLO4-HCL INDUC. COUP. PLASM
000927 2 Au Wt1 Test Weight	1	0.01 GM	FIRE ASSAY	FIRE ASSAY-AA			
000927 3 Ag Ag - IC30	3	0.5 PPM	HF-HNO3-HCLO4-HCL	INDUC, COUP. PLASMA			
000927 4 Cu Cu - IC30	3	1 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA	SAMPLE TYPES NUMBER	SIZE FRACTIONS	NUMBER SAMPLE PREPARATIONS NUMBER
000927 5 Pb Pb - 1C30	3	2 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA			
000927 6 Zn Zn - 1C30	3	2 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA	R ROCK 3	2 -150	3 CRUSH/SPLIT & PULV. 3
000927 7 Mo Mo - IC30	3	1 PPM	HF-KNO3-HCLO4-HCL	INDUC. COUP. PLASMA			
000927 8 Ní Ni-IC30	3	1 PPM	HF HNO3-HCLO4-HCL	INDUC, COUP. PLASMA	REPORT COPIES TO: MR. JOHN KERR		INVOICE TO: MR, JOHN KERR
000927 9 Co Co - 1C30	3	1 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA			
000927 10 cd Cd - 1C30	3	1.0 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA			*******
000927 11 Bi Bi - IC30	3	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA	,	, ,	full. The data presented in this
000927 12 As As - IC30	3	5 PPM	HF-HN03-HCLO4-HCL	INDUC. COUP. PLASMA			d under "Sample Number" and is pressed on a dry basis unless
000927 13 Sb Sb - 1C30	3	5 PPM	HF-HNO3-KCLO4-HCL	INDUC, COUP, PLASMA		1	,
000927 14 Fe Tot Fe - IC30	3	0.01 PCT	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA		*****	********
000927 15 Mn Mn - 1C30	3	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA			
000927 16 Te Te - IC30	3	25 PPM	HF-HNO3-HCLO4-HCL	INDUC, COUP. PLASMA			
000927 17 Ba Ba - IC30	3	5 PPM	HF-HN03-HCLO4-HCL	INDUC, COUP. PLASMA			
000927 18 Cr Cr - IC30	3	2 PPM	HF-HN03-HCLO4-HCL	INDUC. COUP. PLASMA			
000927 19 V V - IC30	3	2 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA			
00092720Sn Sn-IC30	3	20 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA			
000927 21 W W - IC30	3	20 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA			
000927 22 Li Li-IC30	3	2 PPM	HF-HNO3-HCLO4-HCL	INDUC, COUP. PLASMA			
000927 23 Ga Ga - 1C30	3	10 PPM	HF-HNO3-HCLO4-HCL	INDUC, COUP. PLASMA			
00092724La La IC30	3	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA			
000927 25 Sc Sc - 1C30	3	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA			
000927 26 Ta Ta - IC30	3	5 PPM	HF-HNO3-HCLO4-HCL	INDUC, COUP. PLASMA			
000927 27 Ti Ti IC30	3	0.01 PCT	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA			
00092728AL AL-IC30	3	0.01 PCT	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA			
000927 29 Mg Mg - IC30	3	0.01 PCT	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA			
000927 30 Ca Ca - IC30	3	0.01 PCT	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA			
000927 31 Na Na - IC30	3	0.01 PCT	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA			
000927 32 K K - 1030	3	0.01 PCT	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA			
000927 33 Nb Nb - 1C30	3	5 PPM	HF-HNO3-HCLO4-HCL	INDUC. COUP. PLASMA			
000927 34 Sr Sr - 1C30	3	1 PPM	HF-HNO3-HCLO4-HCL	INDUC, COUP. PLASMA			
000927 35 Y Y - 1C30	3	5 PPM	HF-HNO3-HCLO4-HCL	INDUC, COUP. PLASMA			
000927 36 Zr Zr - 1C30	3	5 PPM	HF - HNO3 - HCLO4 - HCL	INDUC. COUP. PLASMA			





Geochemical Lab <u>Report</u>

CLIENT: JOHN R. KERR & ASSOCIATES LTD. REPORT: VOD-01838.0 ( COMPLETE )

PROJECT: NONE GIVEN

DATE RECEIVED: 25-SEP-00 DATE PRINTED: 28-SEP-00 PAGE 1 OF 2

SAMPLE	ELEMENT Au30	Au Wt	1 Ag	Cu	Pb	Zn	Mo I	li Co	Çd	Bi	As	Sb F	e lot	Mn	Te	8a	Сr	۷	Sn	W	Li	Ga	La S	Sc	Ta Ti	i Al	Mg	Ca	Na	ĸ	Nb	Sr	Y Zr	S
NUMBER	UNITS PPB	G	M PPM	PPM	PPM	PPM	PPM P	m PPM	PPM	PPM	PPM	PPM	PCT	PPM	PPM	PPM	PPM F	PPM 1	PPM P	PPM F	PPM P	PMP	PM PF	M P	PM PC	г рст	PCT	PCT	PCT	PCT	PPM P	PM PP	M PPM	PCT
KPJ02	<5	15.1	1 0.7	46	<2	63	3 20	0 110	<1.0	<5	89	<5	5.28	1232	<25	75	2552	26	<20 <	20	12 <	10	<5	5	9 <.01	0.43	9.08	3.31	0.03	0.02	<5	86 <	5 <5	0.017
KPJ03	7		<.5	15	<2	79	4 4	8 15	<1.0	<5	10	<5	4.38	536	<25	747	149	81 -	<20 <	20	19	14	<b>39</b> 1	2	<5 0.46	5 8.81	1.00	0.29	0.89	2.77	18	83 1	3 68	0.013
KPJ04	<5		<.5	30	<2	134	4 4	8 39	<1.0	<5	12	<5	9.63	1542	<25	241	122 2	260 -	<20 <	20	26	15	23 2	21	11 1.80	8.64	2.84	4.72	2.29	1.11	52 3	54 2	76	0.015

	TS		ertek Te <sup>jar Clegg</sup>	sting Services	Geochemical Lab Report							
	IENT: MR. JO PORT: V98-01		ASSOCIATES LTD.	DATE RECEIVED: 31-OCT-98	PROJECT: MYERS LAKE DATE PRINTED: 8-NOV-98	PAGE 1 OF 3						
SA	AMPLE	ELEMENT	Au30									
NL	JMBER	UNITS	PPB									
R2	2 MR9801		<5									
R2	2 MR9802		6									
R2	2 MR9803		6									
R2	2 MR9804		7									
RZ	2 MR9805		<5									
R2	2 MR9806		<5									
RZ	2 MR9807		<5									
R2	2 MR9808		<5									
R2	2 MR9809		<5									
R2	2 MR9810		<5									
RŽ	2 MR9811		<5									
Rã	2 MR9812		<5									
R	2 MR9813		<5									
Rã	2 MR9814		<5									

#### Appendix C

#### Writer's Certificate

I, John R. Kerr, of #1702 - 438 Seymour Street in the City of Vancouver, B.C., hereby certify that:

1) I am a member of the Association of Professional Engineers of British Columbia (membership #6858).

2) I am a graduate of the University of British Columbia (1964) with a BASc degree in Geological Engineering. I have practised my profession continuously since graduation.

3) I collected all data discussed and am the author of this report, and verify the costs as reported to be true.

4) The claims are recorded in my name, in trust for Canim Lake Gold Corp. I am an officer, director and major shareholder of this company.

Dated the 20th day of January, 2001.

RKey

John R. Kerr, P. Eng

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