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REPORT ON A GEOCHEMICAL SURVEY

OF THE

WESTERN WEKA PROPERTY

Omenica Mining Division

LATITUDE	55°30' N
LONGITUDE	125°25' W
NTS MAPS	93 N 6, 93 N 11

OWNERS AND OPERATORS CONSULTANT AUTHOR SUBMITTED EQUINOX RESOURCES LTD. BEATY GEOLOGICAL LTD.

R.R. CULBERT, PH.D., P.ENG.

GEOLOGICAL BRANCH ASSESSMENT REPORT

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### SUMMARY AND CONCLUSIONS

The Western WEKA Property consists of five claims comprising 100 units, located 35 km east of Takla Landing to southwest of the confluence of Kwanika and West Kwanika Creeks. A geochemical survey was carried out here for gold and silver, based largely on stream sediment sampling.

Despite low relief and sluggish, organic drainages, two clusters of precious metal anomalies were found in stream sediments, one lying within WEKA 7 claim and the other dominantly in WEKA 3. It is recommended that these anomalies be followed up. Due to a general lack of outcrop, this is likely to depend dominantly on further sediment and soil geochemistry.

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### INTRODUCTION

The Western Weka property comprises five claims totalling one hundred units. A geochemical survey and prospecting was carried out here in July of 1984 by two geologists of Beaty Geological Ltd. at the request of Equinox Resources Ltd. Work consisted largely of collecting stream sediments, gully soil samples and mineralized rock specimens, which were analyzed for gold and silver. This follows up on sparse geochemical sampling carried out in 1983.

### LOCATION, ACCESS AND TERRAIN

The Western WEKA Property, comprising claims WEKA 3 to WEKA 7 inclusive, is located 35 km due east of Takla Landing between Tsayta Lake and West Kwanika Creek. This lies within the Omineca Mountain belt, with regional position shown on Figure 1.

The gravel road from Manson Creek to Takla Landing passes within 2½ km of the property on the north, although separated there from by the West Kwanika. A rough branch of this road runs down the main Kwanika Creek, 2 km east of the property boundary. Work on WEKA 7 claim was carried out from this latter road, while other claims were examined from a camp established by helicopter out of Takla Landing.

The area is forested, except for scattered open swamps. Relief is low to moderate, and outcrop is virtually non-existent throughout much of the area. Drainages tend to be sluggish and most sediments organic in character.





Claim	n	Units	Tag No.	Date Recorded	Record No.
WEKA	3	20	92357	Aug. 8/83	5629
WEKA	4	20	92358	Aug. 8/83	5630
WEKA	5	20	92359	Aug. 8/83	5631
WEKA	6	20	92360	Aug. 8/83	5632
WEKA	7	20	92369	Aug. 8/83	5633

### CLAIM DATA

### GEOLOGY

The property is situated in the Omineca tectonic belt just three miles west of the Pinchi Fault. The locality was mapped in the early 1940's by Dr. J.E. Armstrong of the Geol. Survey of Canada as being underlain by a dominantly quartzite-argillite phase of the Permo-Triassic Cache Creek Group; here broadly folded on an axis parallel tothe Pinchi lineament. Rocks in this phase largely vary between quartzite and argillite in composition with considerable chert and lesser amounts of conglomerate, greenstone and limestone. The unit is separated from the Hogem Batholith to the east by the Pinchi Fault.

In fact, prospecting revealed only a few areas with adequate outcrop to judge the geology. An apparently sizeable but complex intrusion of muscovite granite was found to the south of the common corner between Weka 3, 4, 5 and 6 claims. Creek float and small outcrops elsewhere indicate that this intrusive or its pegmatitic and aplitic emanations are widespread. Quartz veins are common near this intrusion, but found elsewhere as well. The county rock is largely phyllites and dirty, brownweathering sandstones or quartzites. There are no recorded mineral deposits within the western WEKA Property itself. The Bralorne-Takla mercury mine lies four miles to the north, across the West Kwanika valley. This was active in the early 1940's and later exploration trenching may be seen as far south as the eastern edge of WEKA 7 claim. Copper and molybdenum porphyry deposits have also been investigated in this region.

There have been some gold and silver bearing lode showings discovered in the same apparent phase of the Cache Creek Group adjacent to the Pinchi Fault lineament to the north, such as the LustDust Property near Bralorne-Takla deposit. Of more importance, the creeks on the western side of the Pinchi Trench from the Kwanika Junction north to the Omineca River are gold placer streams. These are reported to have produced 8,051 ounces between 1869 and 1950, and are still active placer gold producers. More recently, attention has been focused on the gold potential of volcanic units in this region. As as result, most of the region to north and northwest was staked in 1983, and discovery of some precious metal occurrences has been reported (Marshall Smith, pers. comm.).

### GEOCHEMICAL SURVEY

a) Description

The area is characterized by a lack of outcrop and low to moderate relief, with no specific target areas developed. Geochemistry hence depended largely on stream sediment sampling, and was reconnaissance in nature. A few soil samples were also collected from dry gullies, and lithologies sampled where they appeared to be altered or silicified. The swampy, organic character of many of the drainages make it unlikely that gold is a geochemically mobile element. All samples were sent to Acme Laboratories in Vancouver. Here the sediments and soils were dried and the -80 mesh fraction extracted by sieving. Rocks were pulverized. All samples were analyzed for gold and silver by the methods outlined in Appendix I.

b) Results

In all, 62 silt and soil samples were collected and 14 rock samples. These are plotted in Figure 2 and the results are listed in Appendix II.

In general, the area proved to have a high silver background, which frustrates the potential use of this element as a more mobile tracer to precious metal deposits. Although the highest silver analysis returned was 3.9 mm, there were 31 samples equal to or greater than 0.5 mm, which would be anomalous in most terrains and certainly in that along the Pinchi Fault.

On the other hand, there were some distinct gold anomalies (to 120 ppb) in sediments despite the nature of the drainages, and for the most part these grouped well. Two areas proved of special interest. The first of these is the WEKA 3 property, noteably the north-facing slope, where gold and silver anomalies are grouped and at some sites coincident. No outcrop was apparent here, although it may well be present higher on the slopes.

The second collection of gold anomalies was a more restricted area within WEKA 7 at the edge of the topographic trench formed by the Pinchi Fault. It involves tributaries of a fairly major creek whose sediments proved anomalous in mercury (330 ppb), Arsenic (240 ppm), Antimony (1.8 ppm) and manganese (1570 ppm) when sampled in 1983 by a government geochemical reconnaissance program (GSC Open File 1001: Nat. Geochem. Reconn. 1:250,000, Manson River NTS 93N sheet).

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Of these elements, the mercury at least appears to have originated from a band of quartz-carbonate rock adjacent to WEKA 7 and near the creek mouth, but this lithology did not give rise to precious metal anomalies.

Whatever the source of the gold and silver geochemistry of Western WEKA Property, it was not found in the few rock samples taken.

#### RECOMMENDATIONS

The silver-gold geochemical anomalies of WEKA 3 and 7 claims should be followed up. This will likely involve a two stage program, the first aimed at reducing the area of interest by following the anomalies as close to source as stream sediment sampling will allow. The second phase will likely have to depend on soil grid work, although there may be enough outcrop and angular float (especially on WEKA 7) to assist in identifying and evaluating the source of the precious metals.

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### CERTIFICATION

I, R. R. CULBERT, hereby certify that:

- I am a practicing Professional Geological Engineer, with offices at 208 - 2786 West 16th Avenue, Vancouver, B.C.
- I am a graduate of the University of British Columbia, B.Sc. (1964), Ph.D. (1971).
- I have practiced mining exploration for twenty-two years, most of which was based in British Columbia.
- I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia.
- I have no interest, directly or indirectly, in the properties or securities of Equinox Resources Ltd.
- I personally supervised and partly carried out the field work on which this report is based.

DATED at Vancouver, British Columbia, this 20th day of August, 1984.

ik R. R. Cull CULPER

#### APPENDIX I

# GEOCHEMICAL PREPARATION AND ANALYTICAL PROCEDURES

- Geochemical samples (soils, silts) are dried at 50°C for a period of 12 to 24 hours. The dried sample is sieved to -80 mesh fraction through a nylon and stainless steel sieve. Rock geochemical materials are crushed, dried and pulverized to -100 mesh.
- A 0.50 gram portion of the sample is weighed into a calibrated test tube. The sample is digested with 3 ml of 3:1:3 HCl:HNO3:H2O at 90°C for 1 hour.
- The sample is diluted to 10 mls using demineralized water. Sample solutions are homogenized and allowed to settle before being analyzed by atomic absorption procedures.
- Detection limits using Techtron A.A.5 atomic absorption unit.

Copper - 1 ppm Molybdenum - 1 ppm Zinc - 1 ppm \*Silver - 0.2 ppm \*Lead - 1 ppm \*Nickel - 1 ppm Chromium - 5 ppm

\*Ag, Pb & Ni are corrected for background absorption.

 Elements present in concentrations below the detection limits are reported as one half the detection limit, ie. Ag - 0.1 ppm.

<u>PPB Gold:</u> 10 gm fire assay concentration, HNO<sub>3</sub> leached, digested with aqua regia then graphite furnace AA analysis. Detection limit - 1 PPB

<u>PPM Silver:</u> a 0.5 gm portion of sample is digested in conc. perchloric-nitric acid (HClO<sub>4</sub> - HNO<sub>3</sub>) for approx. 1 hours. The digested sample is cooled and made up to 10 mls with distilled water. The solution is mixed and solids are allowed to settle. Silver is determined by atomic absorption technique using background correction on analysis. Detection limit - 0.2 PPM

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## APPENDIX II

## GEOCHEMICAL DATA

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SAMPLE	AG PPM	AU** PPB
CC-KWA-3	.6	7
CC-KWA-5	.5	25
CC-KWA-7	.2	6
CC-KWA-13	.9	6 5 4
CC-KWA-14	. 4	4
CC-KWA-15	.4	4 7 6 4
CC-KWA-17	1.0	7
CC-KWA-18	.8	6
CC-KWA-19	.4	
CC-KWA-20	.4	8
CC-KWA-21	.5	120
CC-KWA-22	.5	6
CC-KWA-23	.1	5
CC-KWA-24	.5	5
CC-KWA-25	.3	3
CC-KWA-26	.1	4
CC-KWA-27	.1 .5 .3 .1 .2 .4	5
CC-KWA-28	.4	6 5 5 3 4 5 8 4 4 5 6 2 3 13
CC-KWA-29	.6	4
CC-KWA-30	.9 1.6 .3 .2 .1 .1 .1 .9 .1 .7	4
CC-KWA-31	1.6	5
CC-KWA-37	.3	6
CC-KWA-39	.2	2
CC-KWA-40	.1	3
CC-KWA-41	.1	13
CC-KWA-42	.1	3
CC-KWA-43	.9	15
CC-KWA-44	.1	32
CC-KWA-45	.7	46
CC-KWA-46	.3	5 4
CC-KWA-47	.1	4
CC-KWA-48	.8	16
PC-KWA-1	.6	6
PC-KWA-2	1.2	8
PC-KWA-3	.8 .2 .7	4
PC-KWA-4	• 2	1
PC-KWA-5	.7	2

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APPENDIX II - cont'd.

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SAMPLE	AG PPM	AU** PPB
PC-KWA-6	.6	7
PC-KWA-7	.4	12
PC-KWA-8	1.9	7
PC-KWA-9	1.7	6
PC-KWA-10	1.2	5
PC-KWA-11	3.9	6
PC-KWA-12	1.2	66
PC-KWA-13	1.1	5
PC-KWA-14	.9	4
PC-KWA-15	.7	3
PC-KWA-27	1.0	7
PC-KWA-28	.7	12 7 6 5 66 5 4 3 7 23
PC-KWA-29	.8	5
CR-KWA-1	.2	1
CR-KWA-2	.1	1 1 1
CR-KWA-4	.2	1
CR-KWA-6	.1	1
CR-KWA-16	.6	4
PR-KWA-1	.1	1
PR-KWA-2	.1	1
PR-KWA-3	.1	7
PR-KWA-4	.1	
PR-KWA-5	.1	1 1 2 1
PR-KWA-6	.1	1
PR-KWA-7	.1	2
PR-KWA-8	.1	1
PR-KWA-9	.1	1
GC WE 20	.5	10
GC WE 21	2	<10
GC WE 22	• .1	<10
GC WE 23	· · · 2 · · 1 · 2	<10
MC NK 1	.1	10
MC NK 2	.1	<10
MC NK 3	.1	<10
MC NK 4	.8	<10
MC NK 5 MC NK 6	•1	<10
	.8	<10
MC NK 7	.8 .1 .8 .8 .1	<10
MC NK 8	.1	10

## APPENDIX III

## ITEMIZED COST STATEMENT - WESTERN WEKA PROPERTY

## 1. Personnel

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	Jay Page July 20-23 4 days @ \$150 R.R. Culbert July 20,21, Aug 7	600.00	
	3 days @ \$250	750.00	
		250.00	
	R.J. Beaty Aug 7 1 day @ \$250 Contract expenses (UIC, CPP, WC, etc)	480.00	2080.00
2.	Analytical costs (Acme Anal, Labs.)		
	62 silt and soil preps @ \$0.60; 14		
	rock props @ \$2.75; 76 Au and Ag analyses @ \$7.50		645.70
3.	Disbursements		
	Meals, accomodation	142.50	
	Maps, publications	22.00	
	Telephone, radio communication		
	Helicopter charter	780.29	
	Truck rental (Toyota Landcruiser)	120.00	
	Gas, oil	54.85	
	Expendable field supplies	160.00	
	Camp equipment	100.00	
	Secretarial, accounting, report prep	160.00	1000 00
	Drafting	120.38	1660.02
то	TAL COSTS ON WESTERN WEKA PROPERTY		\$4385.72

