#### DRILL REPORT

- ON THE -

# BILL, JACK & WM. CLAIMS OMINECA MINING DIVISION BRITISH COLUMBIA

- FOR -

## WM. MAKOWICHUK JACK WHITTAKER

6766 HART HIGHWAY PRINCE GEORGE, B.C.

WORK PERFORMED: August 6 - 18, 1986

LOCATED: NTS 1031/8E

54° 25'N; 128° 12'W

27 KM. EAST OF TERRACE, B.C.

PREPARED BY

JOHN R. KERR, P. Eng.

837 E. Cordova St. Vancouver, B.C.

FEBRUARY 20, 1987



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GEOLOGICAL DRANGE	375352X

## GEOLOGICAL BRANCH ASSESSMENT REPORT

EX.

15,859

#### INTRODUCTION

Messrs. Wm. Makowichuk and Jack Whittaker, owners of the Bill, Wm., and Jack claims requested that I review documented data, daily time logs, and results of a drill programme on their claims during August, 1986. I supervised a geochemical programme for Eureka Resources, Inc. during 1984 on the same claims. Because of my familiarity with the property and general area, I have agreed to compile all relevant data suitable for assessment work report.

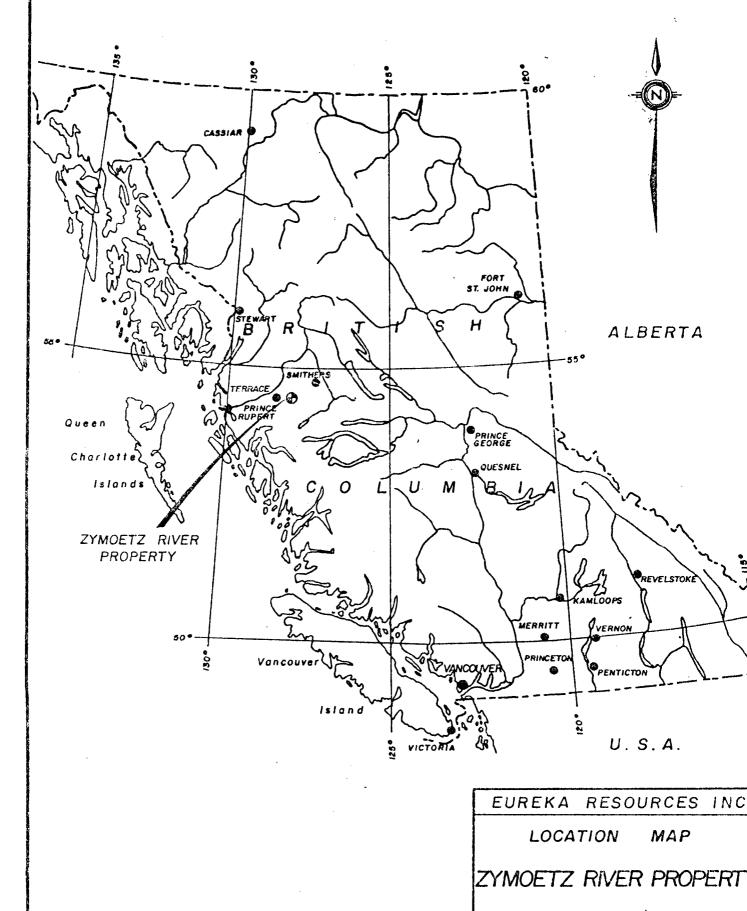
The property is located on Trapline Mountain, 27 Km. due east of Terrace, B.C. Geographic co-ordinates of the property are  $54^{\circ}$  25'N and  $128^{\circ}$  12'W (NTS 1031/8E).

Access is possible via a well-maintained logging road along the south side of the Zymoetz River, leaving Highway #16 7 km. northeast of Terrace, B.C. At a point approximately 10 km. along this road, a B.C. Hydro road services a communication relay station on the top of Trapline Mountain. This road passes through the entire claim block in a north-south direction.

The principal workings of the property are at the 4000-4500 ft. elevations in semi-alpine country of the Coast Mountain Range.

The property is comprised of 20 mineral claims, all located as 2-post mineral claims. Details of the claims are as follows:

Claim Name	Record No.	Mining Div.	Expiry Date	Recorded Owner
Bill 1-6	1202-1207	Omineca	June 27, 1987	Wm. Makowichuk
Wm. 1-4	3829-3832	Omineca	June 23, 1987	Wm. Makowichuk
Jack 1-6	3900-3905	Omineca	July 3, 1987	J. Whittaker
WMB 1-4	7797-7800	Omineca	Aug. 18, 1987	T. Burkes



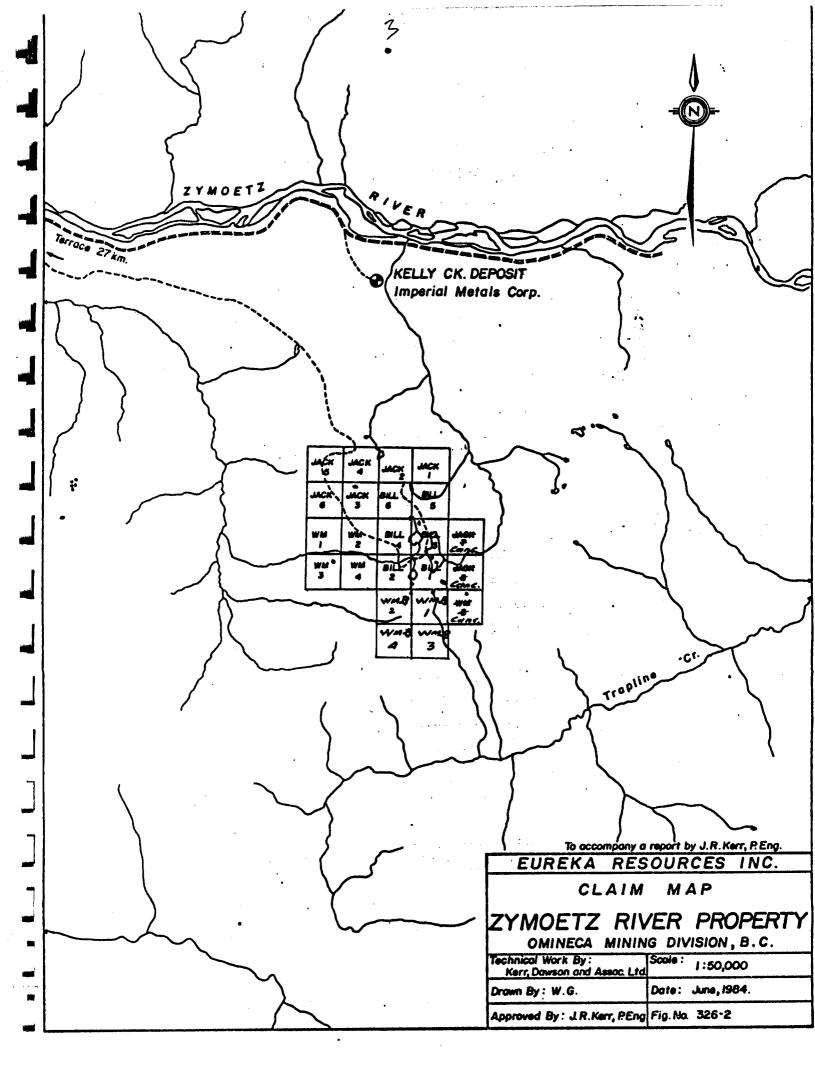
OMINECA MINING DIVISION, B.C.

Technical Work by: Kerr,Dawson Assoc.Ltd.

Date : June, 1984.

Scale: lcm.=87km.

Dwg No. 326-1



#### DRILL PROGRAMME - 1986

During the period August 6-18, 1986, Mr. Wm. Makowichuk, one of the claim owners, operated a small portable gas-driven Sullivan drill mounted on a 1-ton van. Drill sites, were known mineral occurrences within the claims exposed along road cuts. AX drill equipment was utilized providing core approximately 1½" diam.

Problems encountered with the drill equipment were severe, and included excessive bit wear, water circulation (swivel) and core recovery (core barrel). Appended to this report is a daily diary account of the programme from date of mobilization (Aug. 06) and demobilization (Aug. 18/87).

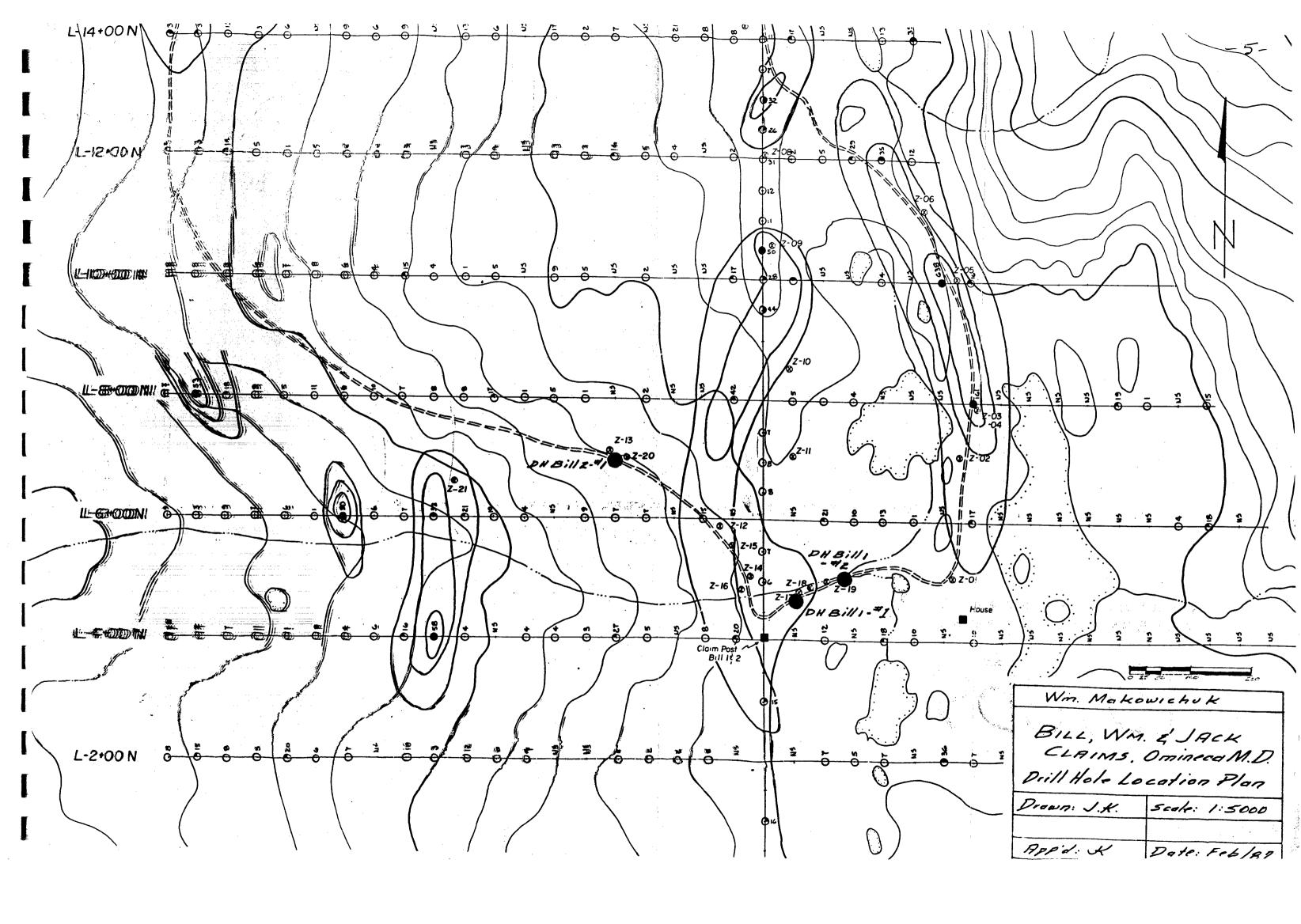
The following summarizes each hole:

Hole	No.	Location	Angle	Date	Comm.	Date	Comp.	Depth
Bíll	1 - #1	4+60N@ 0+50E	Vert.	Aug.	8/86	Aug.	12/86	7.6m (25')
Bill	1 - #2	5+05N@ 1+35E	Vert.	Aug.	14/86	Aug.	15/86	7.6m (25')
Bill	2 - #1	7+00N@ 2+50W	Vert.	Aug.	16/86	_	17/87 1 – 23r	7.6m (25')
						Total	ı – 231	u (/J/)

Core recovery was very poor, estimated at less than 50%, thereby specific sample intervals are not well defined. All core from each hole was sampled and submitted to Chemex Labs Ltd. in Vancouver, B.C. for gold and silver assay. In addition two grab samples of surface rock were submitted for Pt/Pd geochemical analysis.

An attempt to indicate possible drill intervals of each sample is indicated on appended copy of the assay report.

As all core was submitted for assay, geological logs were not completed.



GEOLOGICAL BRANCH ASSESSMENT REPORT

15,859

#### **GEOLOGY**

The geology of the area is generalized on the 1'' = 4 miles G.S.C. map sheet 1136A, Geology of Terrace Map-Area, by S. Duffel and J. G. Souther.

In summary, the claims area is underlain by felsic-intermediate tuffs, breccias, and fragmental volcanic rocks of the Jurassic Hazelton Group. A small (?) granodiorite stock is located on the northwestern flank of Trapline Mountain, 3-4 kilometers northwest of the claims (not shown on G.S.C. map). This stock is probably related to the Coast Intrusive complex located to the west.

The property was mapped in detail by Placer Development Ltd. in 1981. This programme identified four distinct units or facies of the Hazelton Group of volcanic rocks.

- massive, dense greenstone or basalt.
- mauve anesite flows.
- volcanic mud flows & conglomerates.
- felsic fragmentals.
- This lithology follows a general N-S trend, dipping moderately to the east.
- The area appears to be very structurally complex, with two major structure trends noted in the field.
  - N-S, dipping steep to vertical, east.
  - E-W, dipping vertical.
  - All noted mineralization is found in the N-S trending structural system and occurs as pyrite, chalcopyrite, bornite, native copper and malachite. The silver bearing mineral has not been identified.

The mineralization is related to quartz/carbonate veining, with intense epidote and carbonate alteration of the wall rock.

At one location on L8+00N @ 3+50W (samples Z-03 & 04), weak malachite and bornite mineralization was noted in a fault related breccia zone. The two samples represent a width of 5 meters and indicate anomalous content of copper, and weakly anomalous content of silver. It was the only area observed on the property that indicated minderalization over an appreciable width.

The 1986 drill holes were collared on mineralized surface showings, within volcanic rocks of the Hazelton Group, accessible by roads.

Several dikes have been mapped on the property, ranging in composition from felsic to intermediate to basic. All dikes noted have fine grained matrices, the felsic dikes have quartz eyes, and the basic dikes contain feldspar and hornblende phenocrysts. All dikes appear to conform to the two major structural trends. The main felsic dike noted on L8+00N @ 5+50W indicates weak phyllic alteration and is rusty on fractures due to oxidized pyrite.

#### SUMMARY & CONCLUSIONS

The assay data offers values of no economic significance. The drill programme and resulting data is of poor quality.

The owners of the claims have submitted sufficient documentation to me, however, that expresses the good faith and good intent of the programme. For this, costs incurred for drilling, or a reasonable portion thereof suggested on the attached costs statement, should qualify for assessment credit.

Respectfully submitted by:

John R. Kers

John R. Kerr, P.Eng.

APPENDIX 'A'

COST STATEMENT

#### COST STATEMENT

	1)	Labour: August 6-18, 1986		
-		Wm. MaKowichuk 12 days @ \$150.00/day Thos. Burkes, Assistant 12 days @ \$50.00/day Food Costs	\$1,800.00 600.00 312.00	
				\$2,712.00
	2)	Drill and Van Rental 12 days @ \$60.00/day		720.00
	3)	4 x 4 Truck & Camper Rental 12 days @ \$40.00/day		480.00
1.000	4)	Drill bits, purchase of miscellaneous supplies, fuels, etc.		785.00
	5)	Rental of pumps, hose, & misc. drill equipment & tools 12 days @ \$50.00/day		600.00
	6)	Assay Costs		205.50
	7)	Report Costs		150.00
				\$5,652.50 ======

i.e. all inclusive \$75.40/ft.

A P P E N D I X 'B'

COPY OF DIARY WM. MAKOWICHUK

AUGUST 1-18, 1986

E MONDAY Tuesday		Wednesday LIESDAY	
5 MONDAY Zuerday 86 217th day/148 to com		Wednerdy UESDAY AUGUST	U —
7AM-7PM. Cloudy not Bad.		,5-30 AM - 8 PM.	
Hank muller	E TOTAL	530 AM. left P.G. to	
markened alest		Terrace get to glory Sale at 8 PM.	5.35 5.35
1030 Truck + Supplys	Transfer Community of the Community of t	Set up Comp	10.00 10.60
1100 1130 Neady to leave for		Stopped in Smithers 2	11.00 ) <u>11.00</u>
thate m the sM.		and our new many	
Tom Helpel me with loading Drill + Biger Stuff.		Checked our money	ins.
1330		okay They Will be so	mail
1400 12 hrs.		to P.G. Som Dloud Von.	
1530 1530		I drove Comper, Tom	to 200
1690 1630		at 50.00 por lay, we sugg	4.00
1706		Jodging:	5.03
1736	L	IIII has	5.30 6.00
1836 1830			6.30 7.62
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7 WEDNESDAY / AUGUST / 86 21911	h day/146 to come	220th day/145 to come	Friday THURSDAY AUGUST 8
7AM - 9PM. Unloaded Van 7	_ · _	7AM - 9PM Are Blo	ched Dill
turned Drill as in Van Block Van up cleane found Drill eres	costal.	Bett, more	ed to Hale ile # 1 started
1700 Started to Drill  1700 Sampled rocks  1700 oner Bill #1		and his	re Block 10.00 mode Tuskod 7 Diel Fod 11.00
for drill, + pump			1.00
adrised than We me doing Some Blasting	of ay be		2.00 2.30 2.30
Borrowel Blocks from from Tower erea Will When finished	<b>14</b>	2 men 14.	5.30 6.30 6.30
1800 2 men 14 hrs.			<ul><li>お付け</li><li>・ かっと かっと かっと かっと から (を)</li><li>・ かっと (を)</li><li>・ かっと (を)</li><li>・ かっと (を)</li><li>・ ない (な)</li><li>・ ない (な)</li><li< td=""></li<></ul>

221st day/144 to come 1AM-9PM. 4.00 4.30 5.00 5.30 6.00 6.30 7.00

223rd day/142 to come 224th day 141 to come 7AM. - 9PM 7AM. - 97 M Willed till moon not recoing not holding Core in core, unloaded camper Barril, Sydro Truck went to Terrare Shored Boyles Went to Lower Talked I Jack, ordered new Bitt Them. Changed to ald + Core catcher, Bob (Bayles) 1830 Drill Kitt, a little said we were rung to much water and grinding 110 houser. Worked on Water Tuivel fead put new offings our core, said 4-6 gal for in Started Ray & Light Plat 25 ft of Core, Water should up of Chargel my Rayor Knel be just a little cloudy and still sore. use a love speed. Should have a gage on water line wich a pop off halve at 1000, 1330 1400 Tom Broke down sig + moved truck + Drill from Bill " I got Back to Camp 8.P.M. Love to meet 315 Plane aug 13/86. Bills & Core Catcher will be on it. Tom also prepared new Wrill site. 14 hrs old Bitt # 4446 A.T.X.
Gode I.M.T.

Wednesday 225th day/140 to come 7AM- 9PM 7AM-9PM 12.65 1.00 1.30 2.00 1430 3.00 1500 3.39 1530 4.00 1600 1039

I			E E	l i	I I	1	<b>I</b> ,		1
	Triday THURSDAY AUGUST	227th day:138 to co	ome	228th day/137 to	come	) F	aters FRIDA AUGUS	lay FY 1	6/86
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	lock, Pulling Rod Le set Drill Clute came By, also a I	L, Lydro	0,	Corner all be	ses i Back	Drill of an	up, Teorg	Soloak 2 Year	leel
	1100 1130 1200			comp Pain. Lid on	at 9 + Blow - Core	P.M. Sa Box	torted d. r Bil	to aile	0.30
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									,

Monday 229th day/136 to come 230th day 135 to come Dilled - on South last Snow. 7AM-9PM. 

A P P E N D I X 'C'
ASSAY DATA



212 Brooksbank Ave. North Vancouver. B.C. Canada V7J 2C1

·Analytical Chemists

Geochemists

•Registered Assayers

Phone: Telex:

(604) 984-0221

043-52597

CERTIFICATE OF ANALYSIS

TO : WHITTAKER, J.L.

14570 91ST AVE. SURREY, B.C. V3R 7Y7

\*\* CERT. \*

: A8621690-001-A INVOICE # : 18621690

DATE

: 16-DEC-86

P.O. # : NONE GENERAL DELIVERY CACHE CREEK, BC

Semi quantitative multi element ICP analysi-

Nitric-Aqua-Regia digestion of 0.5 qm of material followed by ICP analysis. Since th digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and V can only be considered as semi-quantitative.

COMMENTS :

CC: BILL MAKOWICHUK

1																																
Sample	A1	Ag	As	Ba	Pe	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	К	La	Мэ	Mn	Мо	ВИ	Ni	P	Pb	Sb	Sr	Ti	TI	U	V	ų.	Zn		
description	<u>`</u>	DBM	D0#	000	ppm	pon		pon	ppa	DDA	DBs		ppa		DDM		ppa	DDm	<u> </u>	MOO	ppa	ppa	DDM	DDa	<u> </u>	ppa	ppm	ppm	ppm	ppa		
BILL 1-1 #1	2.15	0.2	25	20	<0.5	/2	3.28	<b>30.5</b>	29	18	35	7.28	10		21A	1 09	15/4		A A2	a.	000		-		4 05				7			
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BILL 1-1 #2	2.44	0.2	20	20	<0.5	<2	2.69	<0.5	31	19	26	7.87	<10	0.06	10	2.16	1811	- a	0.05	28	1030	8	<5	31	0.40	<10	<10	364	√5	174		
BILL 1-1 #3	2.54	0.2	25	30	<0.5	<2	3.35	<0.5	31	18	26	7.85	10	0.11	<10	2.10	1726	$\alpha$	0.06	27	990	14	⟨5	38	0.41	<10	<10	351	⟨5	192		
BILL 1-1 #4	1.87	0.2	25	40	<0.5	<2	3.32	<0.5	22	19	31	6.50	10	0.23	<10	1.48	1342	$\sim$	0.11	23	680	38	₹5	23	0.37	<10	<10	276	<5	162		
BILL 1-1 #5	2.35	0.2	10	110	<0.5	<2	1.55	<0.5	17	27	66	4.52	<10	0.75	10	1.53	871	4	0.07	18	670	12	₹5	74	0.34	<10	<10	107	⟨5	130		
BILL 1-2 #1	0.53	0.2	5	10	<0.5	⟨2	1.42	<0.5	1	11	18	1.71	10	0.11	10	0.05	341	4	0.05	5	190	2	₹5	113	0.01	<10	<10	51	₹5	8		
BILL 2 #1	2.33	0.2	25	40	<0.5	<2	2.21	<0.5	26	5	88	6.81	<10	0.05	20	1.63	1052	<1	0.06	11	1310	8	<5	9	0.46	<10	<10	244	<5	106		
BILL 2 #2	2.05	0.2	25	70	<0.5	⟨2	2.06	<0.5	26	5	614	6.85	<10	0.08	20	1.37	927	4	0.11	10	1340	12	⟨5	30	0.42	<10	<10	248	<5	102		
BILL 2 #3	2.41	0.2	20	50	<0.5	<2	2.18	<0.5	28	4	80	7.09	<10	0.07	20	1.93	1210	$\mathbf{a}$	0.07	11	1240	6	<5	13	0.45	<10	<10	252	<5	122		
BILL 2 #4	2.62	0.2	20	10	<0.5	<2	3.74	<0.5	29	3	36	5.80	10	0.02	<10	1.93	1095	$\langle 1 \rangle$	0.04	9	1480	4	⟨5	23	0.36	<10	<10	217	⟨5	86		
BILL 2 #5	1.66	0.6	20	20	<0.5	<2	2.65	<0.5	19	7	106	5.66	<10	0.02	10	1.18	814	(1	0.08	9	1010	2	⟨5	$\alpha$	0.37	<10	<10	284	<5	48		
GRAB-1	2.95	2.0	10	<10	<0.5	<2	5.38	<0.5	2	10	8994	1.76	/ 10	<0.01	<10	0.05	209	- a	0.01	4	790	⟨2	₹5	159	0.19	<10	<10	99	₹5	2		
GRAB-2 SLICES	2.19	6.8	10	<10	<0.5	<2	4.43	<0.5	3	9 :	>9999	1.90	10	<0.01	<10	0.05	217	4	<0.01	4	810	2	⟨5	659	0.31	<10	<10	102	₹5	2		
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212 Brooksbank Ave North Vancouver, B.C. V7J 2C

(604) 984-022

Phone: Telex:

043-5259

Analytical Chemists • Geochemists • Registered Assayers

\*\*\* INVOICE \*\*\*

: WHITTAKER. J.L.

\*\* Invoice # : 18620095

14570 91ST AVE. SURREY, B.C.

Date

: 11-NOV-36

P. O. #

: NONE

V3R 7Y7

Project

rvoice for analytical work reported on certificate(s) A8620095-001

	Ana	tysed for		unit		
iantity .	code	descrip	lion	price	amount	
11	393 -	Aq FA	oz/T			
	396 -	Au FA	oz/T	10.75	118.25	
2	383 ~	AG FA	oz/T			
	396 -	Au FA	SZIT			
	413 -	Pt	dqq			
	419 -	Pd	aqq	19.25	38.50	

Sample preparation and other charges:

13 207 - Assay - PULVERIZE 3.75

TOTAL

Please pay this amount ---> \$

RMS -- NET 30 DAYS

5 % per month (18 % per annum) charged on overdue accounts



212 Brooksbank Ave. North Vancouver, B.C. Canada

Phone: Telex:

(604) 984-0221 043-52597

Analytical Chemists

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CERTIFICATE OF ANALYSIS

CERT. # : A8620095-001-A INVOICE # : 18620095

DATE

: 11-NOV-86

P.C. #

: NONE

CC:	BILL	MAKOWICHUK
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1 : WHITTAKER, J.L.

SURREY, B.C.

V3R 7Y7

14570 91ST AVE.

Sample	Prep	Ρt	Pa				
description	code	ppb	daa				
81LL 1-1 #1	207						
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GRAB-2 SLICES	207	<50	くゔ	***		****	

TRAPLINE MNT TERRACE R.C. MAPEM 1031/8E. OMINECA.

cortified by ... Chris. Christi.



212 Brooksbank Ave. North Vancouver, B.C. V7J 2C1

Canada

Phone:

(604) 984-0221

Telex:

043-52597

Analytical Chemists •

Geochemists • Registered Assayers

#### CERTIFICATE OF ASSAY

: WHITTAKER. J.L.

14570 91ST AVE. SURREY, B.C. V3R 7Y7

CERT. # : A8620095-001-A

INVUICE # : 18620095

: 11-NCV-36

DATE P.C. # : NONE

CC: BILL MAKGWICHUK

CO. DIEE III	NON LONON					
Sample	Prep	An FA	AU FA			
description	code	oz/T	oz/T			
31LL 1-1 #1	207	0.03	<0.002	OriH Hole 1-41	0-5	**
BILL 1-1 #2	297	0.02	<0.002		5-10-	
31LL 1-1 #3	207	0.02	<0.002		10-15-	
BILL 1-1 #4	207	0.02	<0.002		15-20'	
BILL 1-1 #5	207	<0.01	<0.002		20-25	
81LL 1-2 #1	207	<0.01	<0.002	Drill-Hole 1- 72-		
81LL 2 #1	207	0.02	<0.002	DriltHole 2-#1-	0-5'	***
81LL 2 #2	207	0.02	<0.002		5-10'	***
BILL 2 #3	207	0.01	<0.002		10-15'	
BILL 2 #4	207	0.02	<0.002		15-20'	
31LL 2 #5	207	0.01	<0.002	· · · · · · · · · · · · · · · · · · ·	20-25'	
GRAB-I	207	0.07	<0.002	Swetace Gra	bsample	
GRAB-2 SLICES	207	9.21	<0.002	surface Gra	6 Samuele.	

Registered Assayer, Province of British Columbia

APPENDIX 'D'

WRITER'S CERTIFICATE

#### JOHN R. KERR, P. ENG.

Geological Engineer

#### 837 EAST CORDOVA STREET, VANCOUVER, B.C. CANADA V6A 3R2

#### WRITER'S CERTIFICATE

I, John R. Kerr, of the City of Vancouver, British Columbia, DO HEREBY CERTIFY THAT:

- 1. I am a member of the Association of Professional Engineers of British Columbia, and a Fellow of the Geological Association of Canada.
- 2. I am employed by Eureka Resources, Inc. with my office at 837 East Cordova Street, Vancouver, B.C.
- 3. I am a graduate of the University of British Columbia (1964), with a B.A. Sc. degree in Geological Engineering.
- 4. I have practised my profession continuously since gradulation.
- 5. I am the author of this report, which is based on data provided to me by Mr. Wm. Makowichuk.

John R. Kerr, P. Eng.

February 19, 1987