# REPORT ON TILL GEOCHEMISTRY

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Geld Commissioner's Office VANCOUVER, B.C.

LD PROPERTY LD GROUP

MINING DIVISION: NICOLA NTS MAP: 092I/2W AND 092I/2E

LATITUDE:

50° 03′

LONGITUDE:

120° 44′

OWNER/OPERATOR/AUTHOR L. ADDIE

GEOLOGICAL SURVEY BRANCH

**JAN 15, 2002** 



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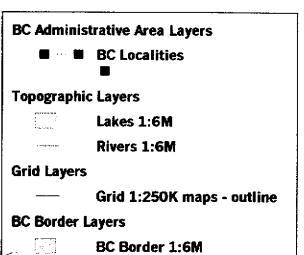
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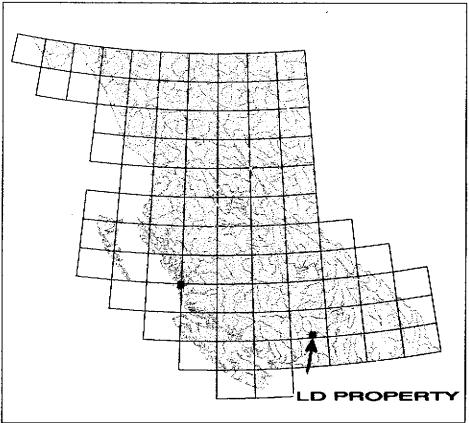
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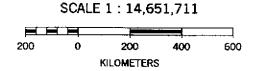
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1:10000 TILL SAMPLE LOCATION MAP IN BACK POCKET

1:10000 PROSPECTING TRAVERSE MAP IN BACK POCKET









#### 1.0 INTRODUCTION:

This report has been prepared for the purpose of filing for assessment work credit and fulfilling the requirements of the Mineral Act and Regulations.

Field work on the **LD property** was carried out by L. Addie from May 15,2001 to October 22, 2001. Work consisted of 12 days prospecting and sampling. A total of 21 till samples were collected and analyzed.

#### 2.0 PROJECT RATIONALE:

The available data on the property showed past soil sampling programs covering the higher elevations of Iron Mountain but little to no coverage of the lower elevations even though Rhyolite was mapped as occurring in both locations. The lower elevations of Iron Mountain have a thicker till cover and it was thought till sampling could define a buried VMS type of target. There were also untested geophysical anomalies in the same location as the thicker tills. (see assessment report 23926)

#### 3.0 LOCATION AND ACCESS:

The LD PROPERTY is situated in the NICOLA Mining Division approximately 6 kilometers South East of Merritt, B.C. Good access to the property is gained by traveling south along Coldwater road, then 8 kilometers up Fox Farm road.

# 4.0 GENERAL SETTING:

The majority of the property is located on the east side of Iron Mountain between Pye creek and the microwave station on the peak of Iron mountain. Elevations range from about 1097M at the most Northeasterly corner of the claims to about 1524M near the West edge of the property.

The Property receives an average of about 2 meters of snow but is generally snow-free from mid May to late November.

The property is covered by extensive overburden below the elevation of 1371M consisting mainly of basal and ablation tills, and glaciofluvial deposits. This overburden ranges in thickness from less than a meter to possibly 10 meters or more. I estimate that the average thickness of tills in areas away from valley bottoms is from 1 to 2 meters. Bedrock outcrop is moderate and accounts for less

than 25% of the claim area. A few new outcrops have been exposed in recent logging road cuts.

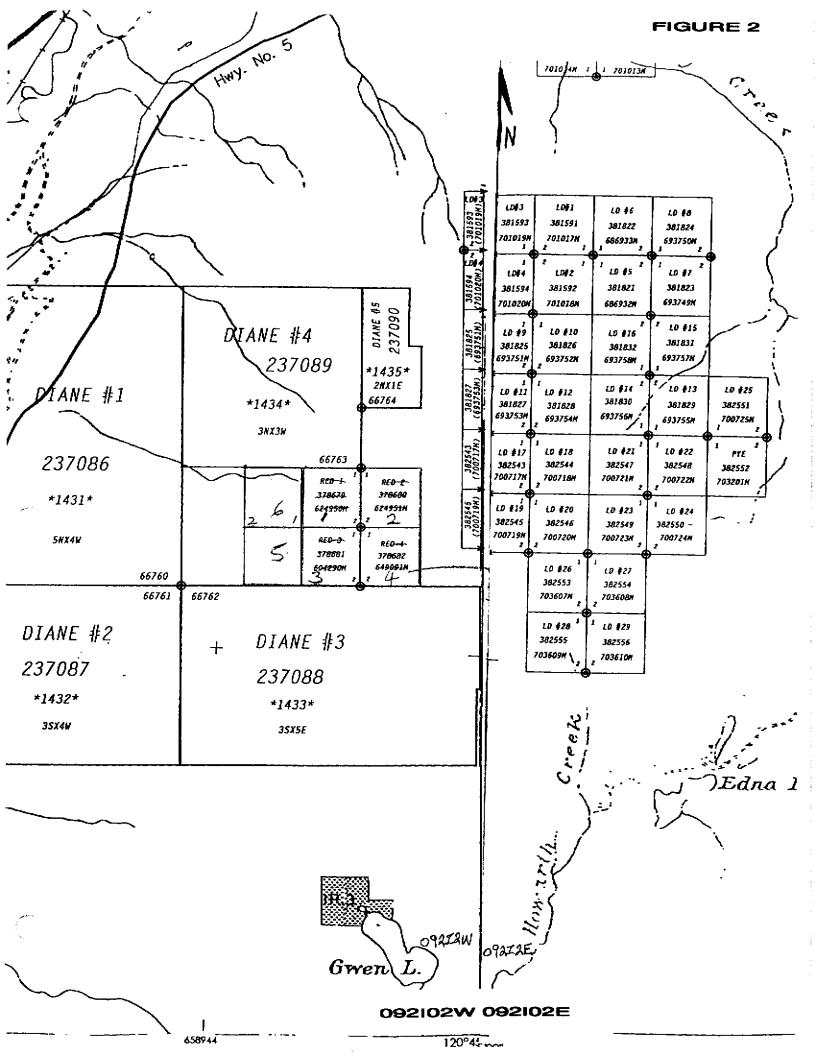
Vegetation in the area consists mainly of coniferous forest with scattered open areas of brush. There has been logging and road construction which has taken place from 1988 to present.

# 5.0 CLAIMS INFORMATION:

The property is comprised of 30 two post claims, known as the LD group. (LD#1-LD#29 plus the Pye claim)

OF UNITS	RECORD #	EXPIRY DATE *
1	381591	OCT 24, 2002
1	381592	OCT 24, 2002
1	381593	OCT 24, 2002
1	381594	OCT 24, 2002
	381821	OCT 26, 2002
	381822	OCT 26, 2002
	381823	OCT 26, 2002
	381824	OCT 26, 2002
	381825	OCT 27, 2002
	381826	OCT 27, 2002
1	381827	OCT 27, 2002
1	381828	OCT 27, 2002
1	381829	OCT 28, 2002
	381830	OCT 28, 2002
	381831	OCT 28, 2002
	381832	OCT 28, 2002
1	382543	NOV 12, 2002
	382544	NOV 12, 2001
	382545	NOV 12, 2002
1	382546	NOV 12, 2001
1	382547	NOV 13, 2001
1	382548	NOV 13, 2001
	3825 <b>49</b>	NOV 13, 2001
1	382550	NOV 13, 2001
1	382551	NOV 15, 2001
	382553	NOV 16, 2001
1	382554	NOV 16, 2001
	382555	NOV 16, 2001
1	382556	NOV 16, 2001
1	382552	NOV 15, 2001
		1       381591         1       381592         1       381593         1       381594         1       381821         1       381822         1       381823         1       381824         1       381825         1       381826         1       381828         1       381829         1       381830         1       381831         1       381832         1       382543         1       382544         1       382546         1       382547         1       382548         1       382549         1       382551         1       382554         1       382555         1       382555         1       382555

<sup>\*</sup> Expiry date upon acceptance of work as detailed in this report.



The Mineral Claims are shown on the Figure 2 maps contained in this report.

#### 6.0 HISTORY AND DEVELOPMENT:

Research of available literature shows three assessment reports on the property. (16817, 18888, and 23926)

Previous mineral exploration was focused on known mineral occurrences.

#### a) LD:

Minfile#: 092I 02E Status: Showing

Commodity: Cu, Pb, Zn, Aq, Au

Deposit Type: Capsule Geology:

The western belt of the Upper Triassic Nicola Group consists of calc-alkaline flows grading upward into pyroclastics, epiclastic sediments and abundant limestone. The LD showing is underlain by volcanic sandstone to siltstone and tuff. Bedding strikes NorthWest to NorthEast and dips steeply to the South.

Old workings expose silver-lead-copper-zinc mineralization. Rock chip samples of baritic massive sulphide float and outcrop assayed copper ranging from 10 to 3240 PPM, silver 0.4 to 59.4 PPM and gold 1 to 2960 PPB (Assessment Report 16817)

# 7.0 BEDROCK GEOLOGY:

The geology of Iron Mountain was mapped in detail by W.J. McMillan (paper 79-1) in 1978. A 5000 meter thick section of Nicola Group is exposed on Iron Mountain. At the base of the section is a microdiorite of unknown thickness. The microdiorite is overlain by an approximately 1500 meter thick sequence of basaltic and andesitic flows. Flow briccia and andesitic breccia occur within the flows. Near the top of the flow unit, rhyolitic breccias and potassium-rich rhyolitic lavas become common with lesser chloritic fragments acid to andesitic breccias.

The acid lava and breccia zone is overlain southward by basaltic to andesitic flows with contained argillaceous limestones indicating periods of quiescence and felsic tuffs indicating periods of explosive volcanic activity.

Outcrops seen while prospecting consist of volcanic and sedimentary rocks. No new mineral showings were located.

## 8.0 SURFICIAL GEOLOGY:

The surficial geology of the LD property is not mapped in detail but glacial striae were found in two locations showing the ice movement from the N.E. to the S.W.

## 9.0 SAMPLING PROCEDURE:

9.1 Tills: A total of 21 till samples were collected. All samples were taken from basal till deposits at an average depth of 0.5 to 1 meter. Sample size was about 2 to 3 kilograms. Samples were placed in heavy plastic bags and tagged accordingly.

The UTM grid location of most samples was determined using a Trimble Scout Master handheld GPS. All GPS readings were in NAD 27.

All samples were shipped by Greyhound to Acme Analytical Labs in Vancouver for geochemical analyses.

# 10.0 SAMPLE PREPARATION AND ANALYSIS:

10.1 Rocks: Samples are crushed to -10 mesh, split and pulverized to -150 mesh. From this, a 0.500 gram sample is digested with 3 ml. of 2-2-2 HCl-HNO<sub>3</sub>-H<sub>2</sub>O at 95°C for one hour and is diluted to 10 ml. with demineralized water. Leach is partial for Mn, Fe, Sr, Ca, P, La, Cr, Mg, Ba, Tl, B, W and massive sulphide and limited for Na, K and Al. Multi-element analysis is done by Inductively Coupled Argon Plasma. Elements obtained in the ICP analysis are: Mo, Cu, Pb, Zn, Ag, Ni, Co, Mn, Fe, As, U, Th, Sr, Cd, Sb, Bi, V, Ca, P, La, Cr, Mg, Ba, Ti, B, Al, Na, K and W.

Gold is determined by igniting a 10 gram sample overnight at 600° C and digesting it in 30 mls. of hot dilute Aqua Regia. 75 ml. of clear solution obtained is extracted with 5 ml. of Methyl Isobutyl Ketone (MIBK). Au is determined in MIBK extract by Atomic Absorption.

10.2 Soils, Tills and Silts: Samples are dried at 60°C and up to 100 gm. is sieved to -80 mesh. From this, a 15 gram sample is digested with 90 ml. 2-2-2 HCl-HNO $_3$ -H $_2$ O at 95°C for one hour and is diluted to 300 ml. with demineralized water. Leach is partial for Mn, Fe, Sr, Ca, P, La, Cr, Mg, Ba, Tl, B, W and limited for Na, K, Ga and

Al. Multi-element analysis is done by Inductively Coupled Argon Plasma ES and MS. Elements obtained in the ICP analysis are: Mo, Cu, Pb, Zn, Ag, Ni, Co, Mn, Fe, As, U, Th, Sr, Cd, Sb, Bi, V, Ca, P, La, Cr, Mg, Ba, Ti, B, Al, Na, K, W, Tl, Hg, Se, Te and Ga.

#### 11.0 DATA PRESENTATION:

The work carried out on the LD Property is summarized on maps as follows:

21 till samples were taken in two days and analysed by multi-element ICP. Sample description and GPS coordinates are shown in appendix V. The location and values for Ag, Cu, Zn are plotted on a 1:10000 topographic map in the back pocket. 10 days of prospecting traverse lines plus outcrop locations are plotted on a 1:10000 map in the back pocket.

#### 12.0 OBSERVATIONS:

The field examinations and geochemical reconnaissance sampling program carried out on the LD Property indicates the following:

12.1 Two samples were anomalous. T122543 is slightly anomalous in copper at 61 PPM. T122536 is slightly anomalous in zinc at 51 PPM and strongly anomalous in silver at 250 PPB.

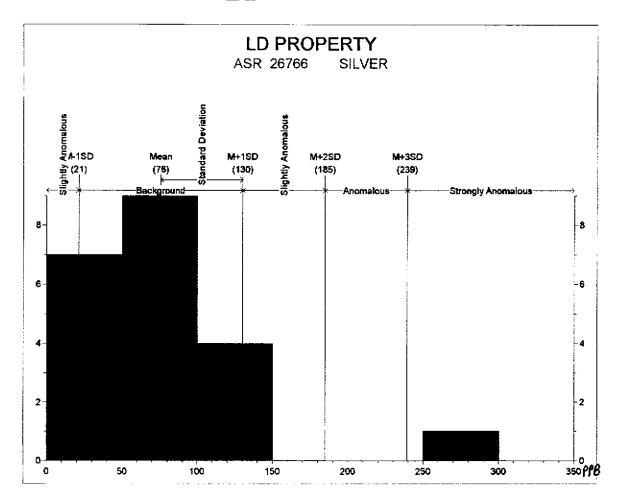
#### 13.0 RECOMMENDATIONS:

13.1 Based on the evidence collected to date, further tills are recommended up-ice from T122543 and T122536.

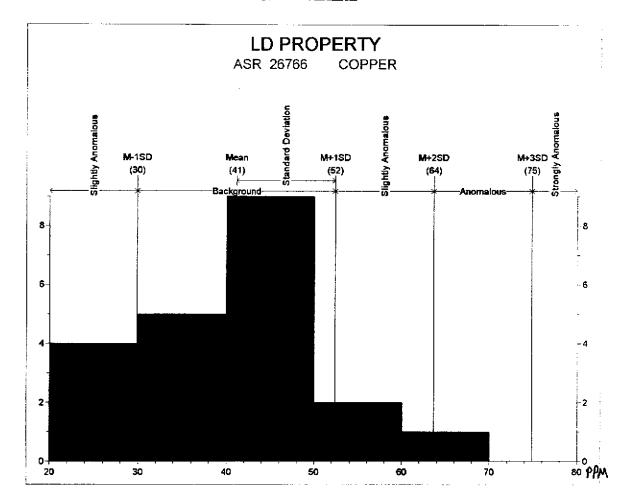
Lord Addi

Jan. 15/02

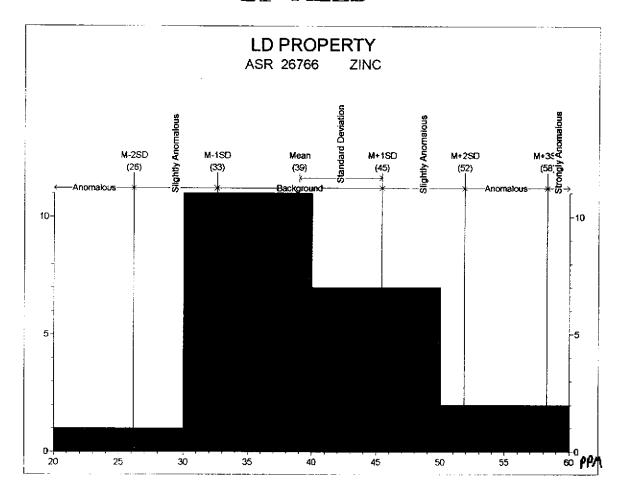
# 21 TILLS



21 TILLS



# 21 TILLS



# LD Till samples

122501 June 28/01 10662511 55446225 NAD27 Till brown clay 60 cm deep 122502 June 28/01 1066214 5544660 NAD 27 Till in road cut 25M west of gps 122503 June 28/01 250M west of 122502 Till 60cm deep 122504 June 29/01 LD 10662833 5545340 NAD 27 Till grey hard packed clay 30cm 122505 June 29/01 LD 200M West of 04 Till green clay 30cm deep 122506 June 29/01 LD 10662365 5545336 NAD 27 Till brown hard packed clay 45cm 122507 June 29/01 LD 10662112 5545349 NAD 27 Till brown clay 45cm deep 122508 June 29/01 LD 10662307 5545796 NAD 27 Till brown clay 45cm deep 122509 June 29/01 LD 10662609 5545845 NAD 27 Till brown clay 45cm deep (rusty) 122510 June 29/01 LD 10662889 5546089 NAD 27 Till brown clay 30cm deep 122534 Oct 21/01 LD 100M S.E. from copper showing Till brown clay 1.3M deep in road cut 122535 Oct 21/01 LD 10662386 5547477 NAD 27 Till brown clay 0.5M deep 122536 Oct 21/01 LD 10662577 5547492 NAD 27 Till brown clay 0.7M deep 122537 Oct 21/01 LD 10662499 5547655 NAD 27 Till brown clay 1M deep 122538 Oct 21/01 LD 10662805 5547613 NAD27 Till brown clay 1M deep 122539 Oct 21/01 LD 10662915 5547424 NAD 27 Till brown clay 1M deep 122540 Oct 21/01 LD 10663005 5547218 NAD 27 Till brown clay 1M deep 122541 Oct 21/01 LD 10662947 5546846 NAD 27 Till brown clay road ditch (rusty pebbles) 122542 Oct 21/01 LD 10662834 5546671 NAD 27 Till brown clay 0.5 M deep (rusty pebbles) 122543 Oct 21/01 LD 10662705 5546538 NAD 27 Till brown clay 1M deep (rusty pebbles)

122544 Oct 21/01 LD 10662807 5546920 NAD 27 Till brown clay 1M deep

ACME ANALYTICAL LABORATORIES LTD. (ISO 9002 Accredited Co.)

852 E. HASTINGS ST. VANCOUVER BC V6A 1R6

PHONE (604) 253-3158 FAX (604) 253-1716

# GEOCHEMICAL ANALYSIS CERTIFICATE



<b>CA</b>									<u>A</u> 11	<u>ddi</u> 02 G	e,	I,	ОУ	rd I	PRO	JEC	T I	D	Fi	le le	A1	019	953	die									Â
SAMPLE#	Мо ррт	Cu ppm	Pb ppm	Zn ppm	Ag ppb			Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Şr ppm	Cd ppm	Sb ppm	8i ppm p	<b>V</b> (	a %	P La % ppm			Ba ppm	Ti \$	B A	1 Na	K %	W Sc ppm ppm	T] ppm	S Ho			Sa Sam Om
C 122501 C 122502	1.53	44.20 42.09	6.46	41.3	75 34	15.2 16.6	9.0	305 2	2.61	3.2	.5	1.0	1.7	39.0												9 .016	.09	<.2 4.0	.05<				-
C 122503	. 57	27.19	4.64	43.7	119	11.4	7.7	291 2	2.58	3.5	. 5	2.4	1.7	38.9		.41	.07	86 .5	1 .05	8 7.9	26.0	. 45	100.3	. 119	2 1.09			<.2 4.6 <.2 4.0		01 29 01 30		<.02 4. .02 4.	-
C 122504 C 122505		22.20 30.54										2.5 1.9			.03 .04						32.8 32.0							<.2 2.8 <.2 3,7		01 7 01 25		<.02 4. <.02 4.	_
RE C 122505	. 60	32.04	4.17	41.8	66	15.5	8.9	315 2	2.56	3.8	.6	2.6	1.8	39.8											1 1.3	2 .012	.09	<.2 3.8	.04	.01 13	.4	.02 5.	0
122506 122507	. 90	30.31 38.22	5. <del>9</del> 4	50.6	73	14.2	8.5	433 2	2.75	3.B	. 5	2.5 4.5	2.0 · 1.9 ·	41.0 44.0	.02	.29 .53	.07 .08	92 .9 86 .7	2 .07 3 .08	'1 8.6  2 12.2	32.3 30.3	.46 .54	90.0 204.9	. 127 . 104	2 1.0	6 .015 9 .023	.08	<.2 3.7 <.2 5.2	.04	01 21 01 34		<.02 4.	•
C 122508 C 122509	. 60	56.82 57.32	3.88	34.4	- 76	15.9	7.7	231 2	2.75	3.3	.6	2.7	2.4	49.2		.35 .38	.09	99 .	3 .02	8 12.8	40.2 32.8	.48	109.7	. 145	1 1.3	2 .012	.05	<.2 5.3 <.2 5.0	.03<	01 33	.4	<.02 4.	9
C 122510		47.46																		-													•
	9.12	26.64	35.29	154.7	286	37.7	12.1	804	3.12	30.7	6.0 .	20.6	3.8	45.5 29.0	. us 5.56 ·	.33 4.76 :	. ua 5.54	79 .5	, .ut 1 .09	17 11.9 12 17.2	32.6 192.7	.58 .59	130.3 141.0	.104				<.2 4.7 4.1 2.8					

GROUP 1F15 - 15.00 GM SAMPLE, 90 ML 2-2-2 HCL-HN03-H20 AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 300 ML, ANALYSIS BY ICP/ES & MS. UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 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. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns. - SAMPLE TYPE: TILL \$230 600

JUL 3 2001 DATE REPORT MAILED: July 17/0/ DATE RECEIVED:

SIGNED BY ...

.... D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

217.35

# 852 E. HASTINGS ST. VANCOUVER BC: V6A 1R6

PHONE (604) 253-3158 FAX (604) 253-1718

# GEOCHEMICAL ANALYSIS CERTIFICATE

Addie, Lloyd File # A103938 1102 Gordon Road A-801, Nelson BC VIL 3M4 Submitted by: Lloyd Addie 44

Pb Zn Ag Ni Co Mn Fe As U Au Th Sr Cd Sb Bi V Ca P La Cr Mg Ba Ti B Al Na K N Sc Tì S Hg Se Te GaSample Total SAMPLE# G-1 1.51 2.54 2.42 40.3 11 4.3 4.0 529 1.79 .3 1.8 3.0 4.8 70.6 ,03 .05 .17 38 .57 .094 8.1 13.4 .52 204.1 .127 <1 1.07 .056 .47 1.6 1.4 .29 .02 <5 .1 .02 4.7 .53 43.25 3.78 41.2 60 16.3 8.9 312 2.96 3.0 .5 11.1 2.2 40.6 .07 .30 .08 105 .56 .095 9.6 35.2 .45 101.4 .152 1 1.50 .014 .11 <.2 4.0 .04 .02 17 .2 .02 5.2 C 122534 C 122535 .66 25.66 3.64 33.8 43 13.1 8.3 279 2.68 2.8 .4 2.3 1.7 46.9 .02 .31 .08 97 .54 .026 5.8 30.9 .47 76.6 .171 2 1.33 .015 .07 <.2 3.1 .04 .02 13 .2 <.02 4.7 80 49.47 5.44 51.4 267 17.0 11.3 418 3.38 3.6 .6 8.6 2.1 77.1 .09 .45 .09 95 .74 .035 13.0 30.4 .61 158.6 .114 2 1.81 .016 .11 < .2 6.5 .06 .02 58 .3 .05 5.8 C 122536 .70 48.12 4.45 42.9 142 16.9 9.8 449 2.99 4.2 .4 1.6 2.0 49.5 .05 .58 .08 92 .84 .055 10.7 33.1 .57 127.5 .139 2 1.59 .018 .11 <.2 5.5 .05 02 38 .3 .04 5.3 C 122537 .49 46.54 3.48 37.8 63 18.0 9.1 352 2.99 3.1 .5 1.6 2.2 53.2 .04 .30 .07 101 .63 .084 10.6 33.8 .52 105.4 .124 2 1.67 .018 .09 <.2 4.4 .03 .01 24 .3 .02 5.5 C 122538 .47 33.27 3.43 35.7 76 14.9 7.6 312 2.53 2.5 .4 1.5 1.8 48.2 .04 .27 .09 85 .59 .065 9.1 30.2 .45 94.4 .137 2 1.39 .017 .12 <.2 3.7 .04 .01 13 .2 .03 4.7 C 122539 .55 37.99 2.98 28.9 31 15.6 8.2 270 2.90 3.2 .5 1.5 2.0 47.1 .03 .31 .07 112 .57 .056 10.8 34.8 .42 62.6 .138 2 1.11 .021 .08 <.2 4.1 .04 <.01 23 .2 .02 4.2 € 122540 53 37.60 2.95 28.9 28 15.7 8.1 271 2.91 3.1 .5 2.6 2.0 48.6 .02 .30 .08 112 .58 .055 10.2 35.1 .42 59.7 .149 2 1.12 .023 .08 <.2 4.0 .04 .01 24 .1 .03 4.0 RE C 122540 .72 47.53 3.52 32.1 33 13.9 8.6 431 3.15 6.0 .4 3.3 2.1 81.6 .11 .41 .07 98 2.72 .107 9.3 28.1 .49 109.3 .129 1 1.13 .031 .05 <.2 3.2 .03 .03 34 .1 .03 3.7 C 122541

GROUP 1F15 - 15.00 GM SAMPLE LEACHED WITH 90 ML 2-2-2 HCL-HN03-H20 AT 95 DEG. C FOR ONE HOUR, DILUTED TO 300 ML, ANALYSED BY ICP/ES & MS.

UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 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: TILL 5230 60C Samples beginning 'RE' are Regums and 'RRE' are Reject Reruns.

PPENDIX

# **PROSPECTOR QUALIFICATIONS**

- 1. I graduated from high school in 1982.
- 2. In 1982 I attended the Chamber of Mines of Eastern B.C./ B.C. Ministry of Mines "Basic Prospecting Course".
- In 1983 I completed the "Advanced Prospector's Course" sponsored by EMPR.
- 4. In 1992 I attended the "Petrology for Prospectors" course sponsored by EMPR and the Chamber of Mines of Eastern B.C.
- 5. In 1996 I attended the "Industrial Minerals" course sponsored by the Ministry of Employment & Investment and the Chamber of Mines of Eastern B.C.
- I have been prospecting and working in the mineral exploration industry since
   1982 and have successfully optioned mineral claims to exploration companies.
- 7. In 1998 I attended the "Gemstone" course held in Nelson and sponsored by the Chamber of Mines of Eastern B.C.
- 8. I regularly attend both the Cordilleran Roundup and the Kamloops KEG Conference and have attended numerous lectures on topics related to mineral exploration and have attended numerous short courses, the most recent of which was the "Intrusive Hosted Gold Deposits" course held at the 1999 KEG Conference.
- 9. I attended the "Massive Sulphide" Short Course given at the Kamloops KEG in 2001

Lloyd addo L. Addie

Jan 2002

# STATEMENT OF COSTS LD GROUP

WAGES:
L. ADDIE , PROSPECTING/SAMPLING 12 DAYS @ \$200.00/DAY\$2400.00
TRANSPORTATION:
4 x 4 RENTAL 12 DAYS @ \$50.00/DAY\$1250.00
FOOD & ACCOMMODATION:
HOTEL 12 Days@ \$40.00/DAY \$ 480.00
LAB ANALYSIS:
21 TILL SAMPLES @ (\$18.50 + \$2.00 PREP) X 7%

TOTAL.....\$4690.63

