

**YEIP
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2000**

**VLF - EM SURVEYS, ROCK AND SOIL SAMPLING,
AND BACKHOE TRENCHING
2000**

**CAM CLAIMS 1 - 146, LIVINGSTONE AREA
WHITEHORSE MINING DISTRICT, YUKON**

NTS 105 E/8

By

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By

Larry W Carlyle, F G A C , P Geol

Whitehorse, Yukon

March, 2001

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INTRODUCTION:

The 2000 exploration season was both one of the most frustrating and most exciting that the writer has experienced in his over 20 years of work within the Yukon Territory. The work was frustrating because Carlyle has never experienced a wetter summer in his greater than 40 years as a Yukon resident. The work was exciting because in the last day and a half of backhoe trenching in a couple of areas near the Adit Showing on the north side of Livingstone Creek, a new, and unexpected, mode of mineralization was identified. Mineralization had been expected to form in zones along the numerous, strong faults and shear zones having a generally north-south strike across the CAM Claims. The newly discovered mineralization appears to be in boudins caught in the nose of folds striking 85° Az. and having a 15° – 20° plunge to the west.

In addition to the days spent doing work on the property, two one-day trips were made to the property in the company of other geologists. The first visit, on September 12th, was in the company of Maurice Colpron. The visit was made so he could investigate the escarpments along the eastern side of the Big Salmon Fault. He requested the visit to add to his knowledge of the fault. He is doing bedrock geological mapping for the Yukon Government in the area of Little Salmon Lake on NTS 105 L, where there are no surface exposures of the fault.

The second one day trip was made on September 19th, in the company of Steve Wetherup, a representative of Phelps Dodge. During our visit, I was able to show him the Adit area, our best mineralized exposure for the moment. His determination after the visit was that the property is too grass roots for Phelps Dodge to option.

This report has been prepared to describe the 2000 work program and provide conclusions and recommendations for further work on the CAM Claims.

LOCATION, ACCESS AND CLAIMS:

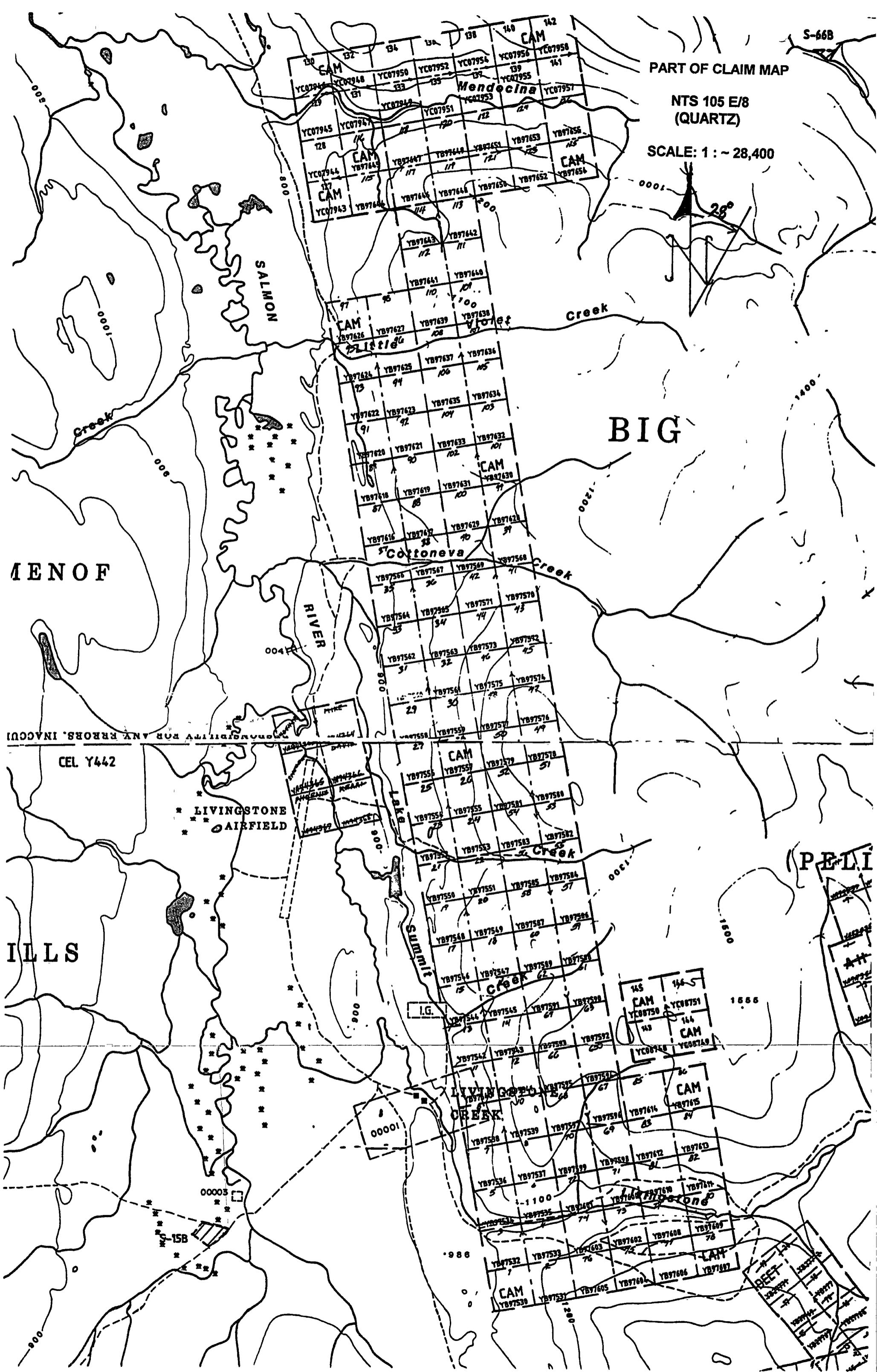
The original 142 CAM Claims were staked in 1997 to cover 5 of the 6 placer creeks which make up the Livingstone placer camp. Mining of these creeks is still occurring 100 years after it began. The CAM Claims are located on NTS Map Sheet 105 E/8 and are centered at approximately Latitude 61° 19' N, Longitude 134° 17' W, within the Whitehorse Mining District, Yukon (See Part of Claim Map 105 E/8 Quartz). An additional 4 claims were staked just east of the main block in May, 1998. These claims were staked to protect a trench, called the Ron Trench, excavated that month. The trench exposed a segment of a sheared quartz vein containing copper and gold values. Larry W. Carlyle and Max Fuerstner, both of Whitehorse, Yukon, hold the Cam Claims. A 75-mile winter road from Lake Laberge, just north of Whitehorse, provides access to the Livingstone Creek area. The Livingstone area has several airstrips so access is usually via fixed-wing aircraft from Whitehorse, approximately 50 air miles to the south southwest. The main Livingstone airstrip is 4000 feet long and has had DC-3 and Caribou aircraft landed on it. The extensive placer mining in the area has resulted in the presence of cat trails up most of the creeks within the claim block. These trails enable easy access to most areas by all-terrain vehicles.

The claims cover areas extending from the fault escarpment of the Big Salmon Fault at an elevation of approximately 900 metres (2,950 ft.) to the top of the hills above the headwaters of the creeks at an elevation of approximately 1500 metres (4,920 ft.). The claims are on rounded to steeply sloping hills, the creek canyons have the steepest slopes. Vegetation consists of black spruce, pine, willow and buckbrush.

PART OF CLAIM MAP

NTS 105 E/8
(QUARTZ)

SCALE: 1 : ~ 28,400



Claim Information:

<u>CLAIM NAME</u>	<u>GRANT NUMBERS</u>	<u>EXPIRY DATE</u>
CAM 1 - 126	YB 97530 - YB 97655	May 16, 2003
CAM 127 - 142	YC 07943 - YC 07958	May 16, 2003
CAM 143 - 146	YC 08748 - YC 08751	May 19, 2003

REGIONAL GEOLOGY:

The geology and the placer gold deposits of the Livingstone Creek area were first described by McConnell in 1901. Regional geological mapping was carried out by Cockfield, Lees, and Bostock between 1929 and 1934. This work resulted in Map 372 A being issued in 1936.

The regional geology was reinterpreted by Tempelman-Kluit in 1977-1979. This interpretation identified the Big Salmon Fault, along which the South Big Salmon River flows and into which the placer creeks drain. During this mapping, Tempelman-Kluit identified the Teslin Fault (4 - 6 miles west of the Livingstone camp) as the ancient western margin of North America. The rocks west of the Teslin Fault (also known as the Teslin Suture) were pressed against and over the original North America during the Early Cretaceous. His theory postulated that this action would cause the rocks east of the Big Salmon Fault to be raised in reverse faulted thrust blocks.

Tempelman-Kluit's westerly dipping subduction zone with North American rocks in the footwall and accreted arc terrane and oceanic rocks in its hanging wall has been reinterpreted. This reinterpretation, which has been developing from the mid-1980's to 1997, considers the Teslin zone as a zone of ductile thrusting, which includes thrust sheets of North American affinity and accreted rocks that have been complexly folded and displaced northeastward and then folded again. Rather than marking the western

limit of rocks of North American origin, the zone is most likely underlain by North American basement that extends westward beneath the Intermontane Belt. Two facts strongly support this model over that of Tempelman-Kluit:

- the same metamorphosed stratigraphies can be traced along a strike length of at least 20 km. This would not be possible in the more chaotic jumble of rock blocks expected from collapsing hangingwall rocks into a subduction zone
- most of the rocks in the area have green schist or amphibolite grade metamorphism. Rocks in a subduction zone would most probably have eclogite or blue schist grade metamorphism

In the new model; Devonian-Mississippian granites and Permian intrusives are deformed, while Late Triassic to Early Jurassic plutons are undeformed, this would put the age of deformation and metamorphism between Late Permian and Late Triassic. Proponents of this model, suggest renaming the Teslin Suture Zone, the Teslin Tectonic Zone. Rocks within the Teslin Tectonic Zone are correlated with sedimentary and volcanic rocks of the Yukon Tanana Terrane and oceanic crustal rocks of the Slide Mountain Terrane. Yukon Tanana Terrane rocks range in age from Devonian to Permian. After their deformation and cooling, the Slide Mountain Terrane rocks were emplaced over them along low-angle, post-metamorphic faults. In the Big Salmon Range (just north of Livingstone), the Teslin Tectonic Zone is 20 km wide. Both Slide Mountain and Yukon Tanana rocks contain steeply dipping fabrics, unlike their counterparts in the rest of the Yukon and Alaska.

The steep north-south striking D'Abbadie fault has generally been taken to represent the eastern margin of the Teslin Zone. It is most probably a narrow zone of brittle deformation reflecting a period of upper crustal normal faulting superimposed on the earlier ductile deformation. Last Peak granite has been dated at 98 Ma. and, on the

basis of contact and structural relationships, is interpreted to have intruded while the D'Abbadie fault zone was active.

PROPERTY GEOLOGY:

During 1999, Carlyle carried out bedrock geological mapping at 1:50,000 scale to better locate geological contacts and faults in the area of the CAM Claims. Mapping was difficult due to the scarcity of outcrop, outcrop was restricted to ridge tops, steep south-facing slopes and gullies created by faults cross-cutting the ridges. Outcrop exposure was probably less than 15%.

Most of the rocks mapped in the area appear to be metamorphic equivalents of near-shore sub-aqueous, beach, and sub-aerial sedimentary rocks.

The rock known locally as quartz sericite schist (QSS) may be an alteration product of amphibolite gneiss (Ag). During the geological mapping done in 1999, the two rock types, as seen in surface exposures, appeared to be different. The quartz sericite schist is generally strongly schistose, white to light brown-yellow iron oxide coated quartz-carbonate, frequently reacts to 10% HCl, has caliche along fractures and generally contains < 1% pyrite crystals, usually oxidized. The petrographic analyses done at the end of 1999 indicated that the limestone, silicified limestone, and the quartz sericite schist are probably all metamorphically recrystallized quartz-carbonate rocks. They contain very little sericite, what was considered to be sericite is most likely limonite. The silica, thought to have been added to the limestone, is most probably an original constituent. The amphibolite gneiss is a light to dark green, laminated, quartz-feldspar-hornblende gneiss. The person who did the 1999 petrographic analysis believed that it may have originally been a felsic to intermediate tuff. Maurice Colpron,

a YTG geologist, who has viewed the thin sections, believes that the rock may be an intermediate intrusive

The quartz sericite schist seems to be found in areas cut by several of the strong north-south striking faults which could explain its stronger schistosity, lighter colour, and its content of iron oxide minerals instead of the more elemental iron-bearing minerals of chlorite and epidote as are seen in the amphibolite gneiss. Exposures made in 2000 have shown what appear to be xenoliths of amphibolite gneiss enclosed within quartz sericite schist and, in some cases, a gradational contact between the two rock types

During the backhoe trenching in the Adit area, two of the trenches, the Adit and Road Trenches (See Backhoe Trenches Locations Drawing), exposed symmetrical antiforms striking 85° Az and having a $15^{\circ} - 20^{\circ}$ plunge to the west. These antiforms would be nearly perpendicular to the movement of allochthonous rocks onto the North American craton as suggested by V.L. Hansen in 1986 (See References). The noses of these antiforms appear, in places, to form traps for boudins of mineralization (See Adit Backhoe Trench drawing)

STREAM SEDIMENT SAMPLING:

Only one stream sediment sample (Sample Cot SS) was taken during 2000. It was obtained from the south fork of Cottoneva Creek (See location on 10,000 Scale map in pocket). It was taken in an attempt to discover if gold mineralization was present in the strong north-south striking fault believed to be present running up this portion of Cottoneva. The fault is thought to proceed south over the ridge into 49 Pup, then to cross Livingstone Creek near the confluence of its north and south forks, then on over the ridge into the Martin Creek drainage. The sample returned 28 ppb Au, 23 ppm

Cu, 6 ppm Pb, 47 ppm Zn, and lower than detection level values in silver, mercury and arsenic

VLF – EM SURVEYING:

Four VLF – EM surveys were done during 2000. They were done, like earlier surveys, to better locate the strong north-south striking faults and shear zones; which are common on the CAM Claims. Three short surveys were done from the Big Salmon Fault eastward along roads on the ridge south of Livingstone canyon, and along the north sides of both Cottoneva and Little Violet Creeks. The fourth survey was greater than 2000 metres long along the cat road on the north side of Livingstone Creek from the adit to its junction with the road coming downhill from the Ron Trench area. They are presented in chart form in Appendix C. Expected cross-over locations have been marked on the charts.

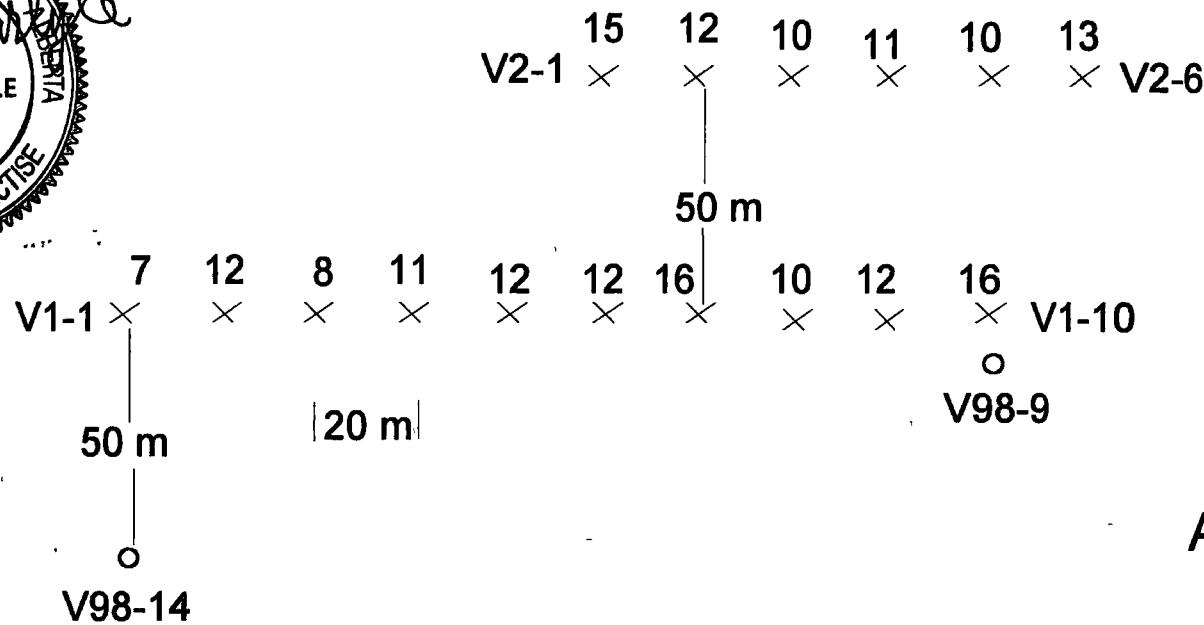
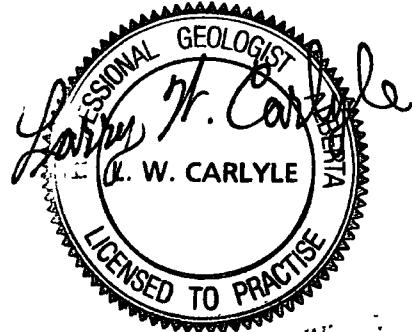
SOIL SAMPLING:

Soil sampling was done in 7 areas within the claim block during 2000.

Little Violet Creek

Two lines of soil sampling were done on the north side of Little Violet Creek during 2000. The first line was started 50 m north of sample V98 – 14. Ten samples were taken from there at 20 m spacings along a line of 80° Az. Another line of 6 samples was taken along the same heading another 50 m further north. No significant indication of mineralization was found (See 2000 Little Violet Soil Samples drawing).

2000 LITTLE VIOLET SOIL SAMPLES



Au in ppb.

○ 1998 Samples

× 2000 Samples

Little Violet Creek



Cottoneva Creek

Two short lines of soil samples were taken between the two lines of soil samples taken in the gully just east of the Cottoneva camp location in 1998. This gully is believed to be the trace of the Big Salmon Fault. These samples were taken when it was realized that the 1998 samples had been taken on May 4th. At this time of the year fluids would not yet be percolating through the soil. The new lines were located 25 metres north of each of the 1998 lines with samples still being taken at 20 m intervals at 80° Az. No significant mineralization was located in either set of sample lines (See Cottoneva Gully Check Soil Samples drawing)

Ron Trench

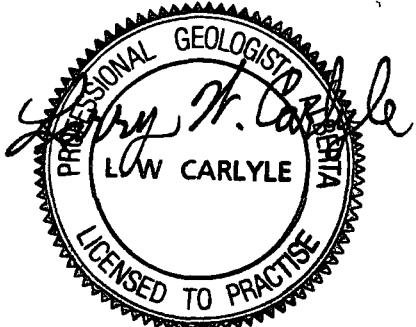
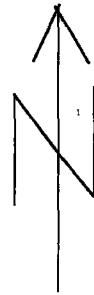
Six short lines of soil samples (given an RL designation) were taken around the 1998 Ron Trench. Lines RL1 and RL2 were taken north of the trench. Line RL1 returned one assay of over 1020 ppb mercury, whereas Line RL2 returned two samples with greater than 1000 ppb mercury. Lines RL3 – RL6 were taken south of the trench at line spacings of 50 metres and sample spacings of 20 metres. With the exception of several samples returning mercury values in the hundreds of ppb in Lines RL4 and RL5, no significant gold, silver, or copper values were returned from any of the samples from the trench area. This is unfortunate since it is believed that a north-south striking fault passes through the trench and the areas sampled.

Ron West Gully

As in the case of the Ron Trench, a strong north-south striking fault passes through the gully west of the road in the area. Here again, six lines of soil samples (given an RW designation) were taken at 50 metre line spacings and 20 metre sample spacings perpendicular to the gully. Only sample RW1-1 returned 202 ppb gold. This sample was taken on the side of the road so there is a chance it was contaminated. With the

COTTONNEVA GULLY

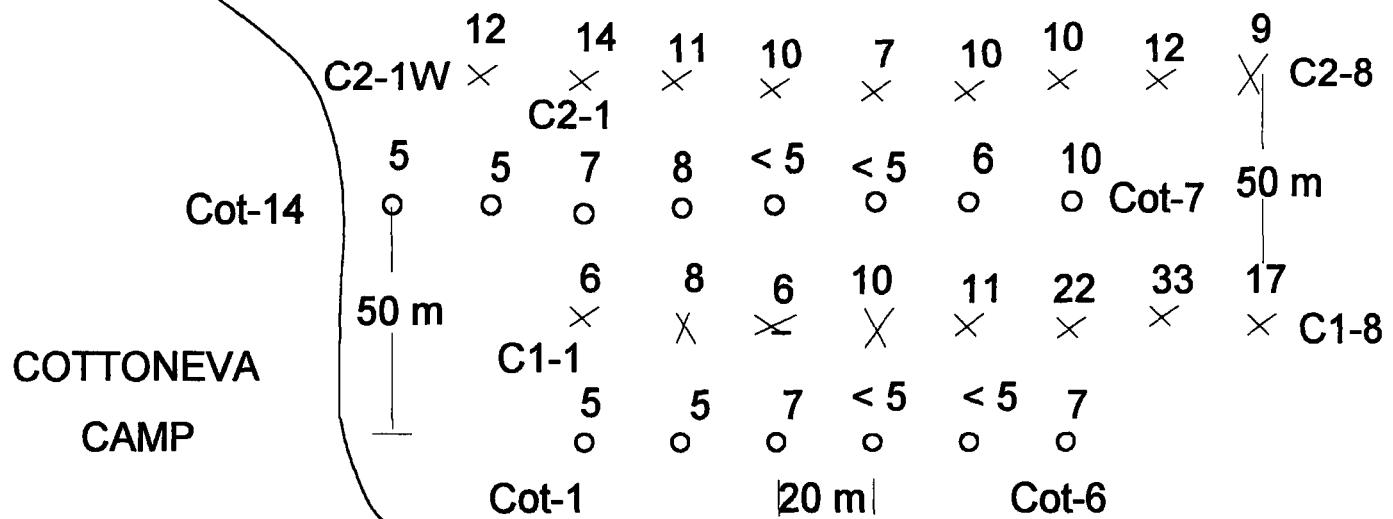
CHECK SOIL SAMPLES



○ 1998 Samples

× 2000 Samples

Au in ppb.



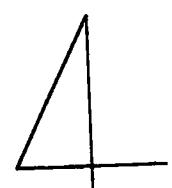
COTTONEVA
CAMP

Cat Road

Cottoneva Creek

12 25 11 9 17 16

RL - 2



16 13 30 57 16 17

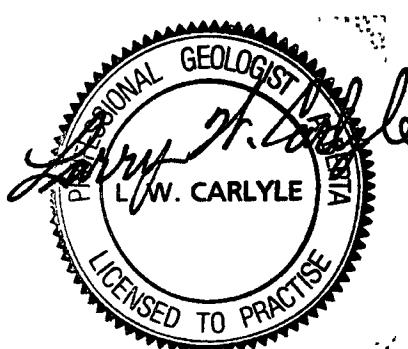
RL - 1



Vein in Trench

Au
(ppb)

RON TRENCH



RL - 3

14

14

14

16

26

20 m

RL - 4

50 m

15

13

17

19

24

20

RL - 5

37

18

17

13

20

8

RL - 6

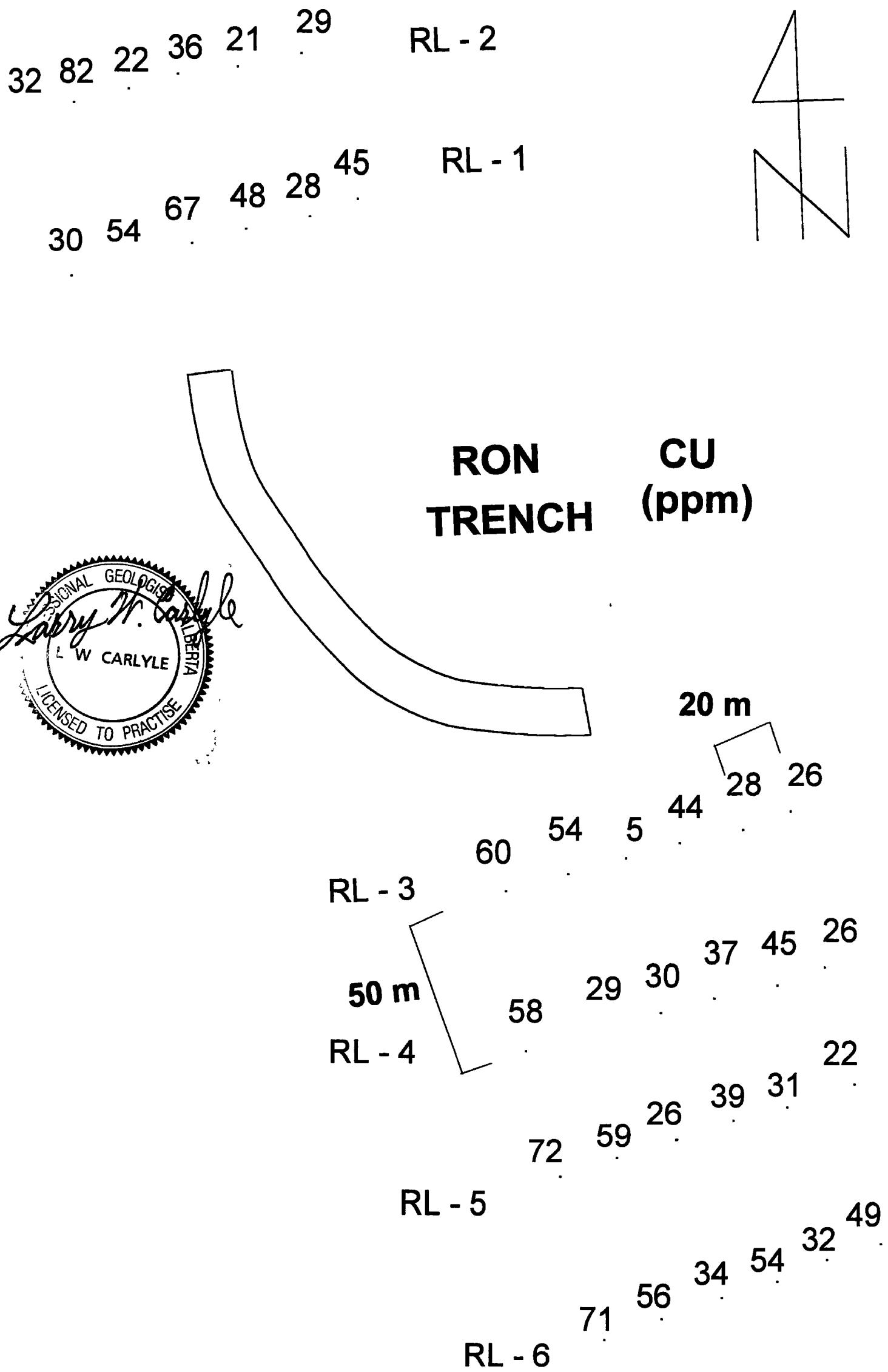
14

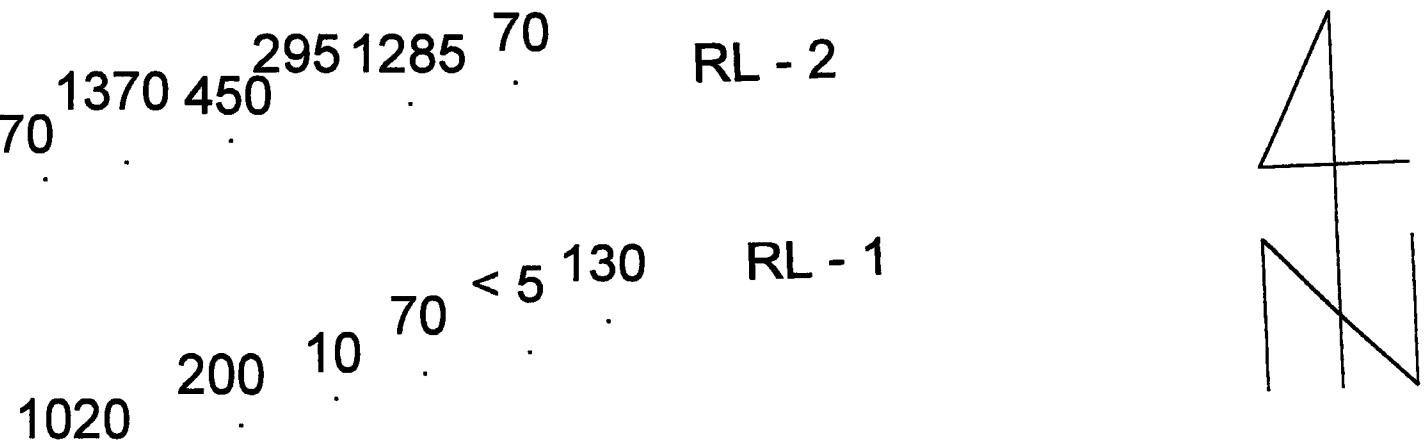
13

12

10

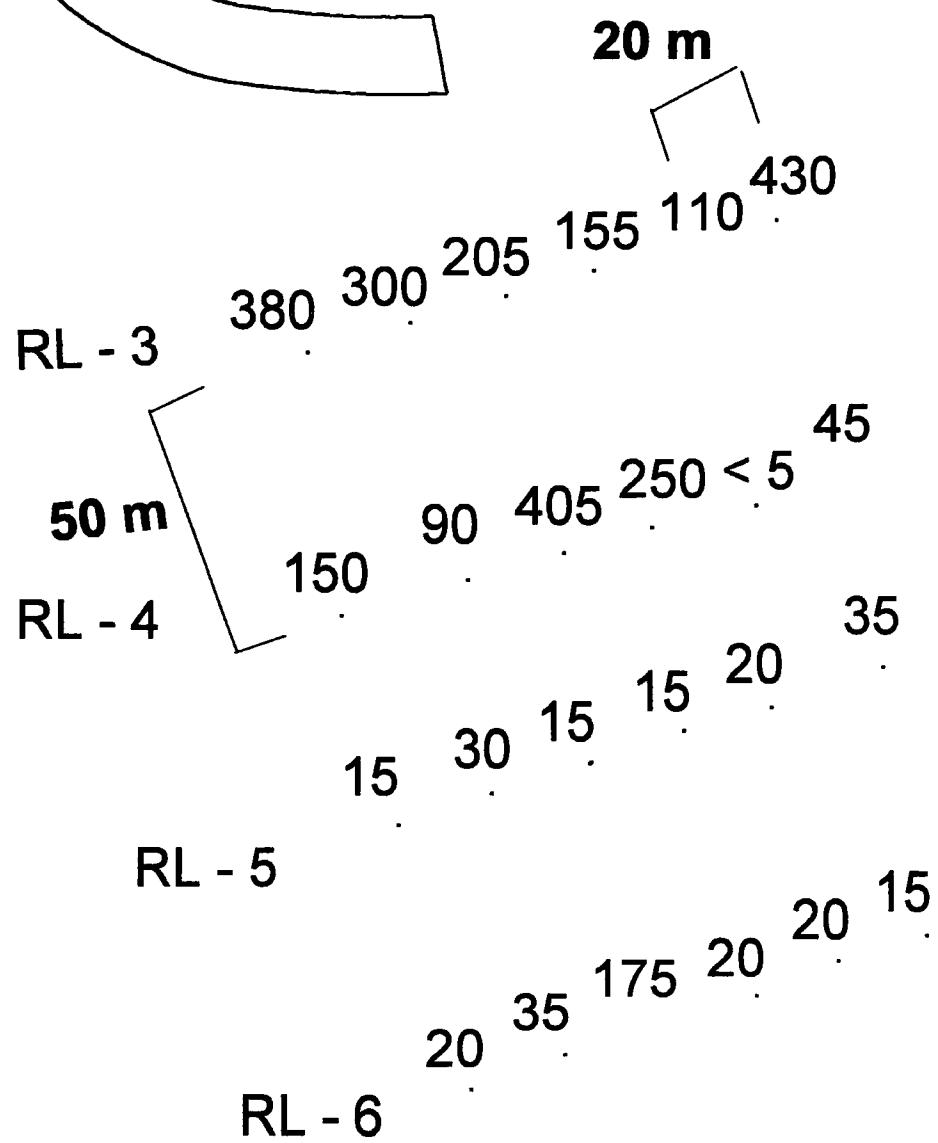
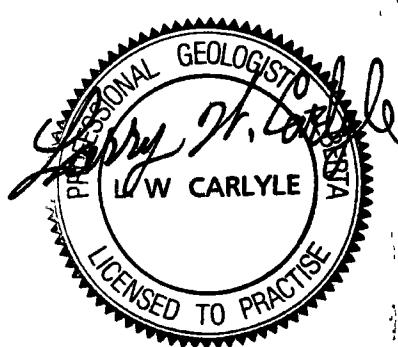
3

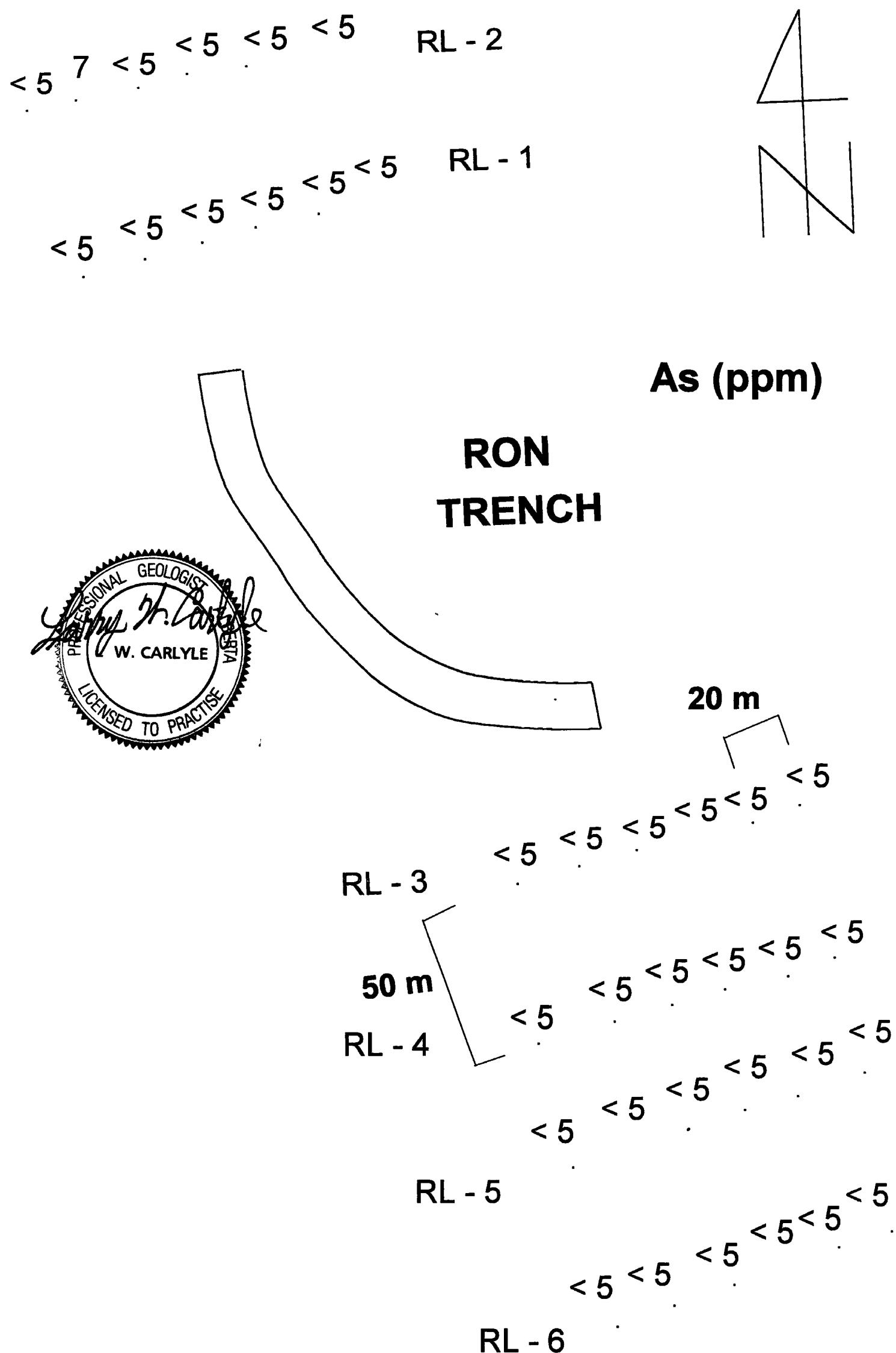


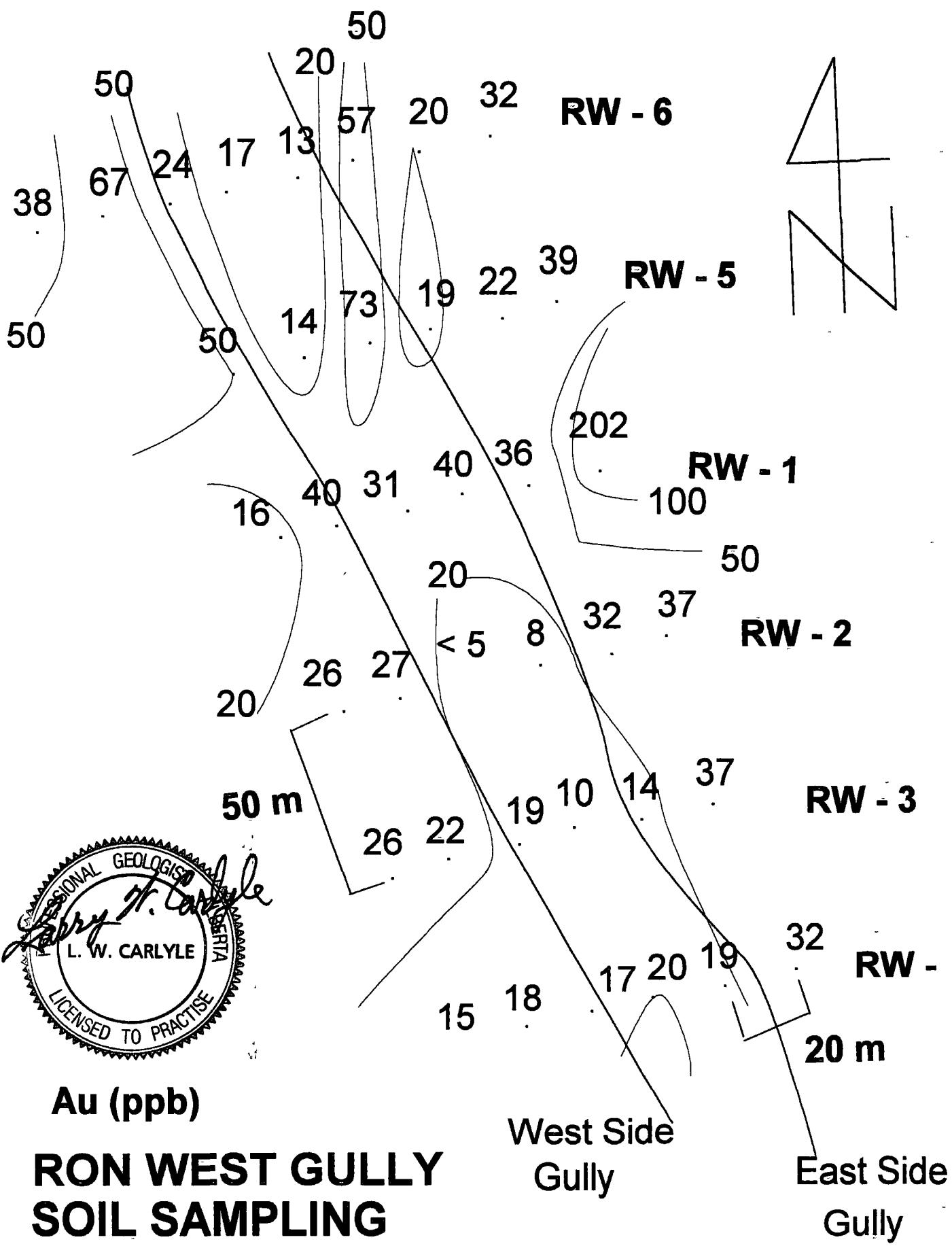


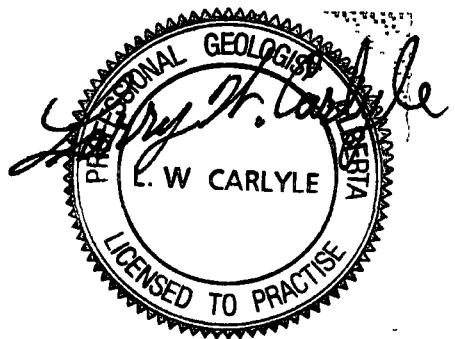
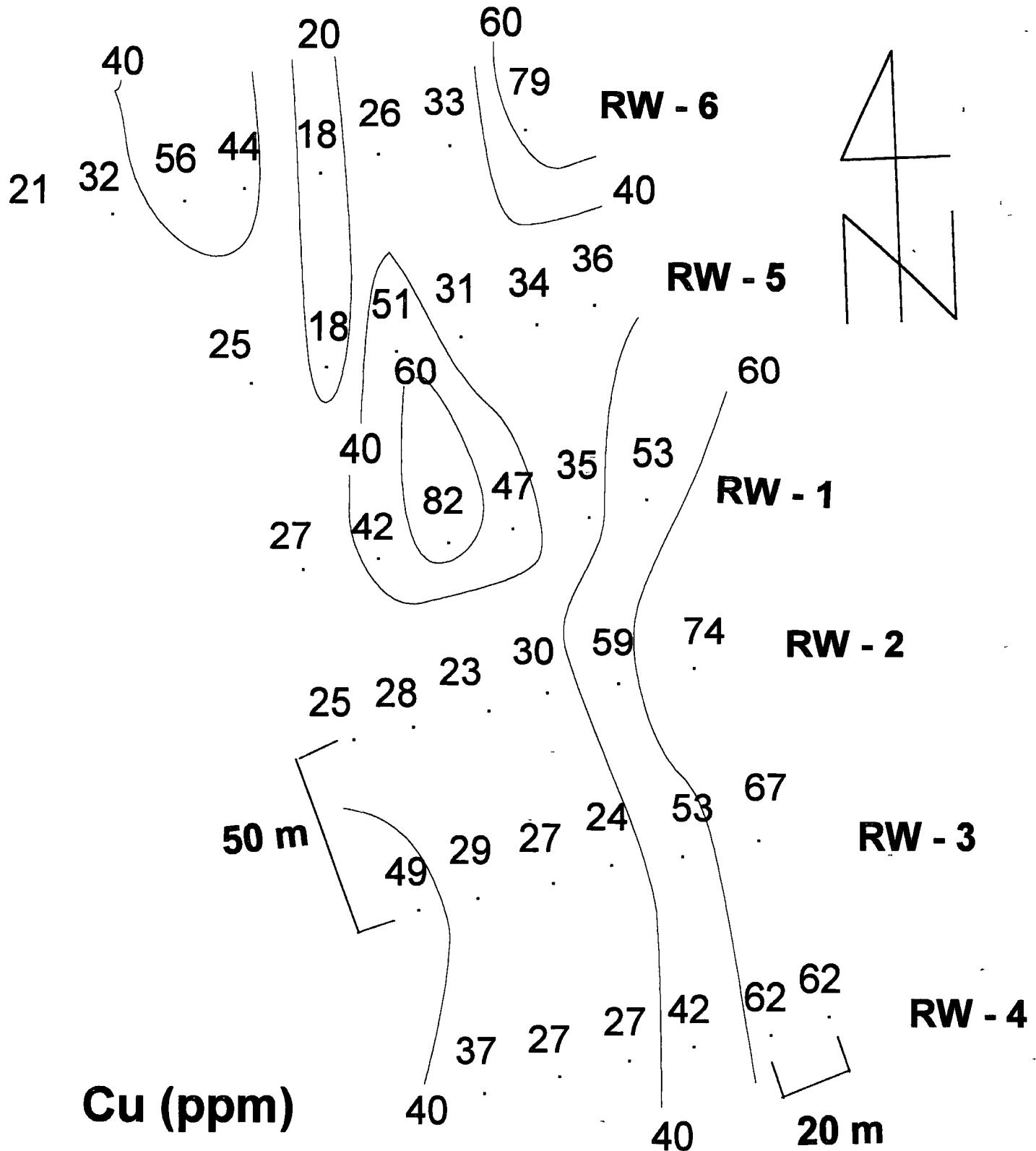
**Hg
(ppb)**

**RON
TRENCH**

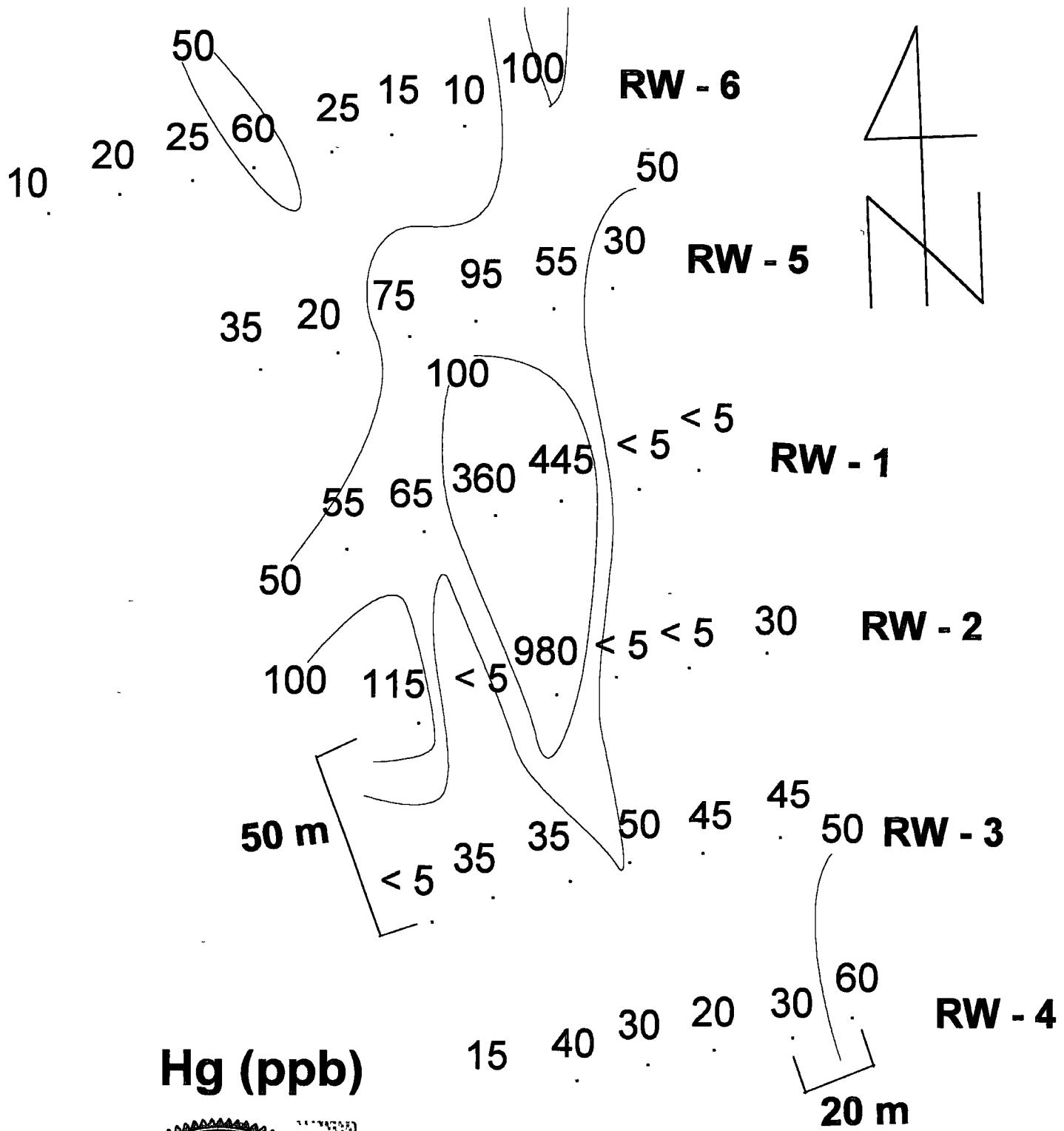




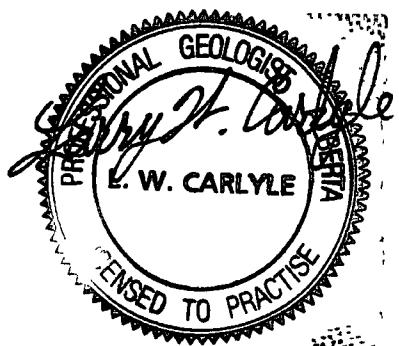




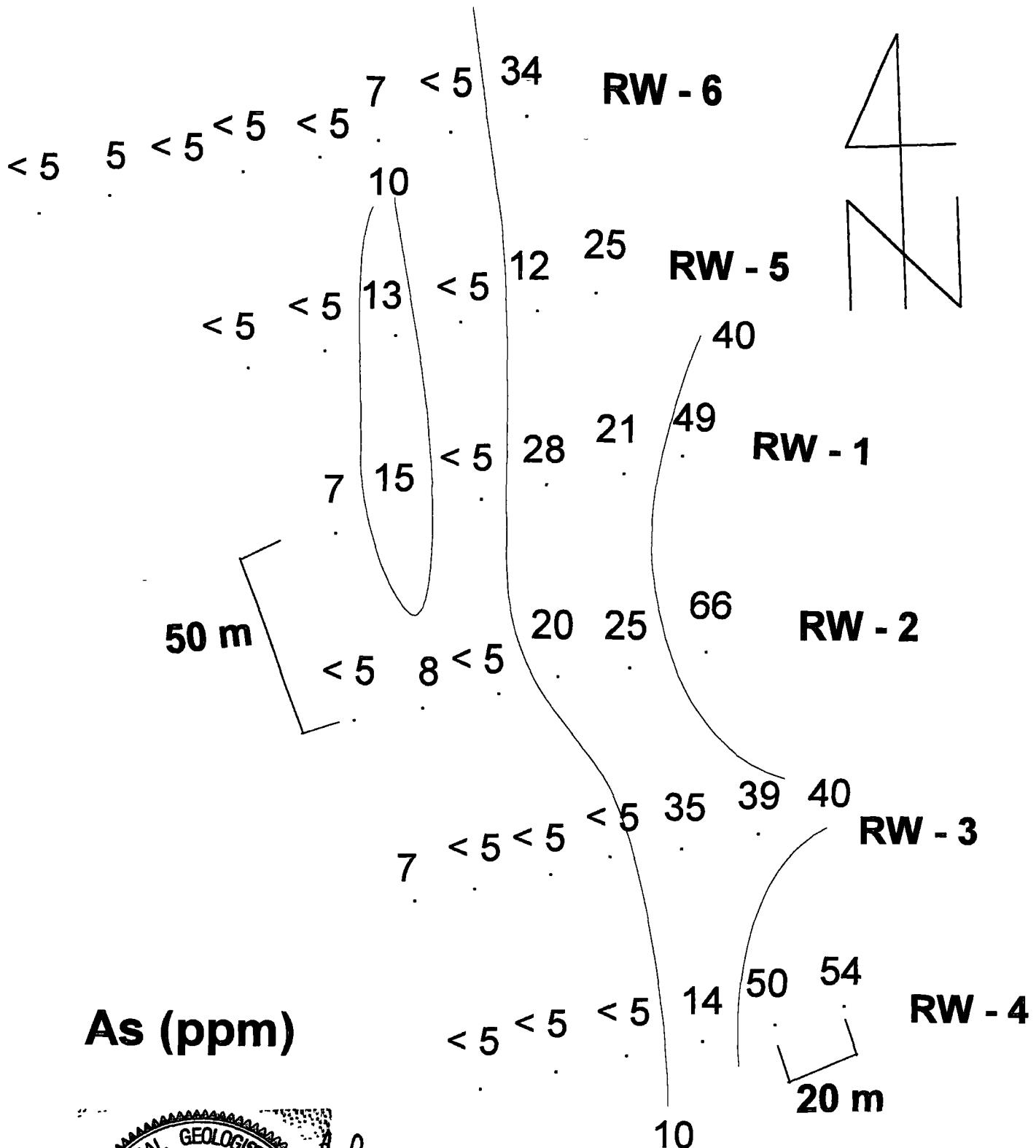
RON WEST GULLY
SOIL SAMPLING



Hg (ppb)

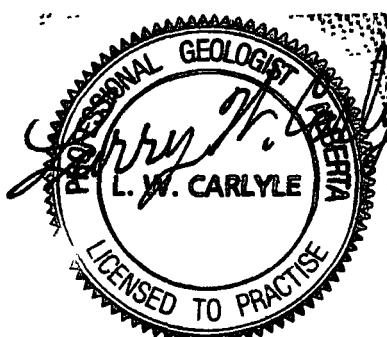


RON WEST GULLY SOIL SAMPLING



As (ppm)

RON WEST GULLY
SOIL SAMPLING



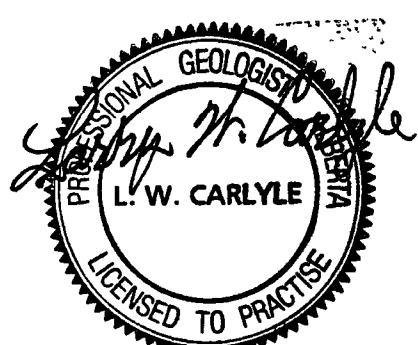
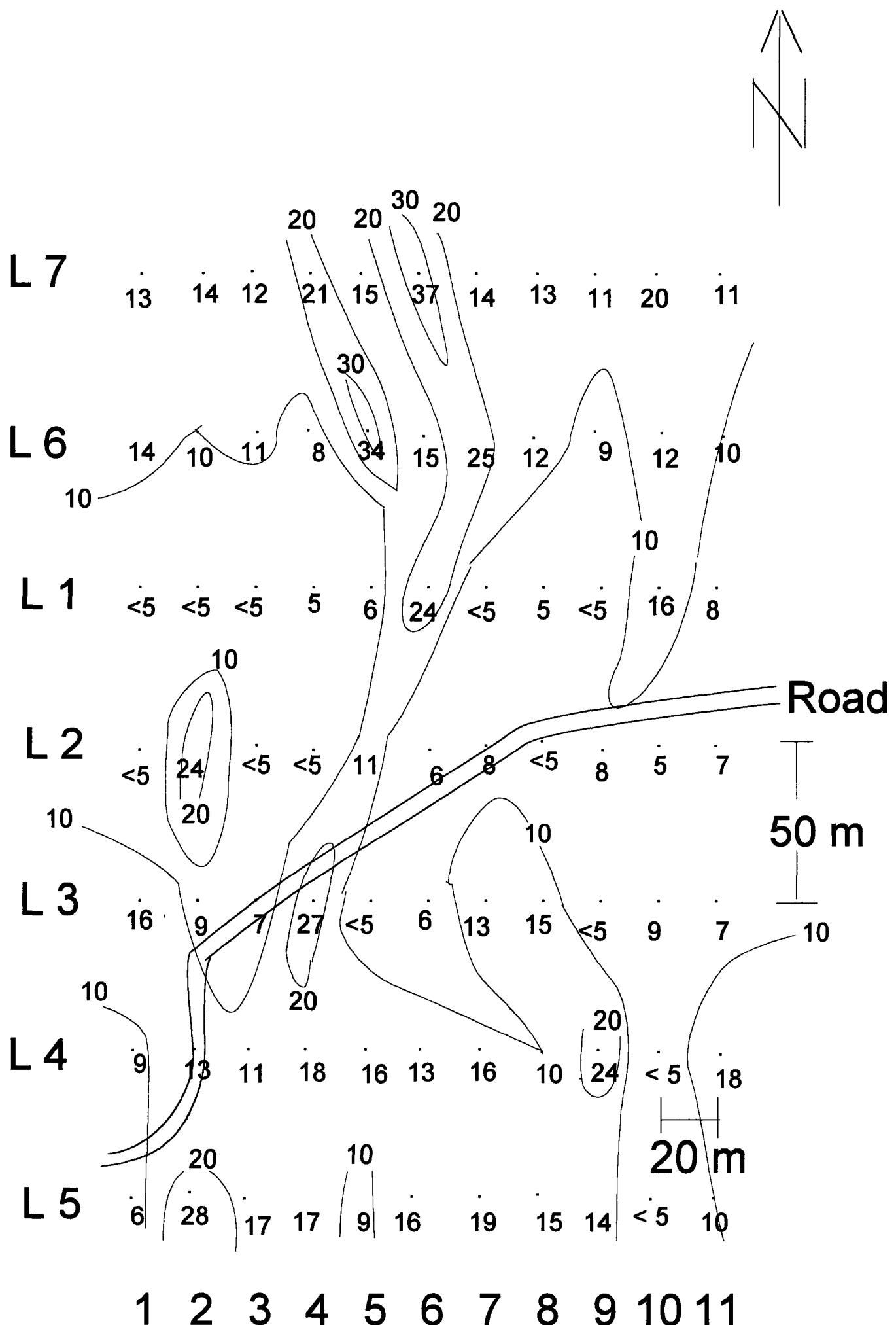
exception of three samples in lines RW1 and RW2 which returned assays of several hundred parts per billion in mercury no other significant values were obtained in gold, silver, or copper.

Switchback

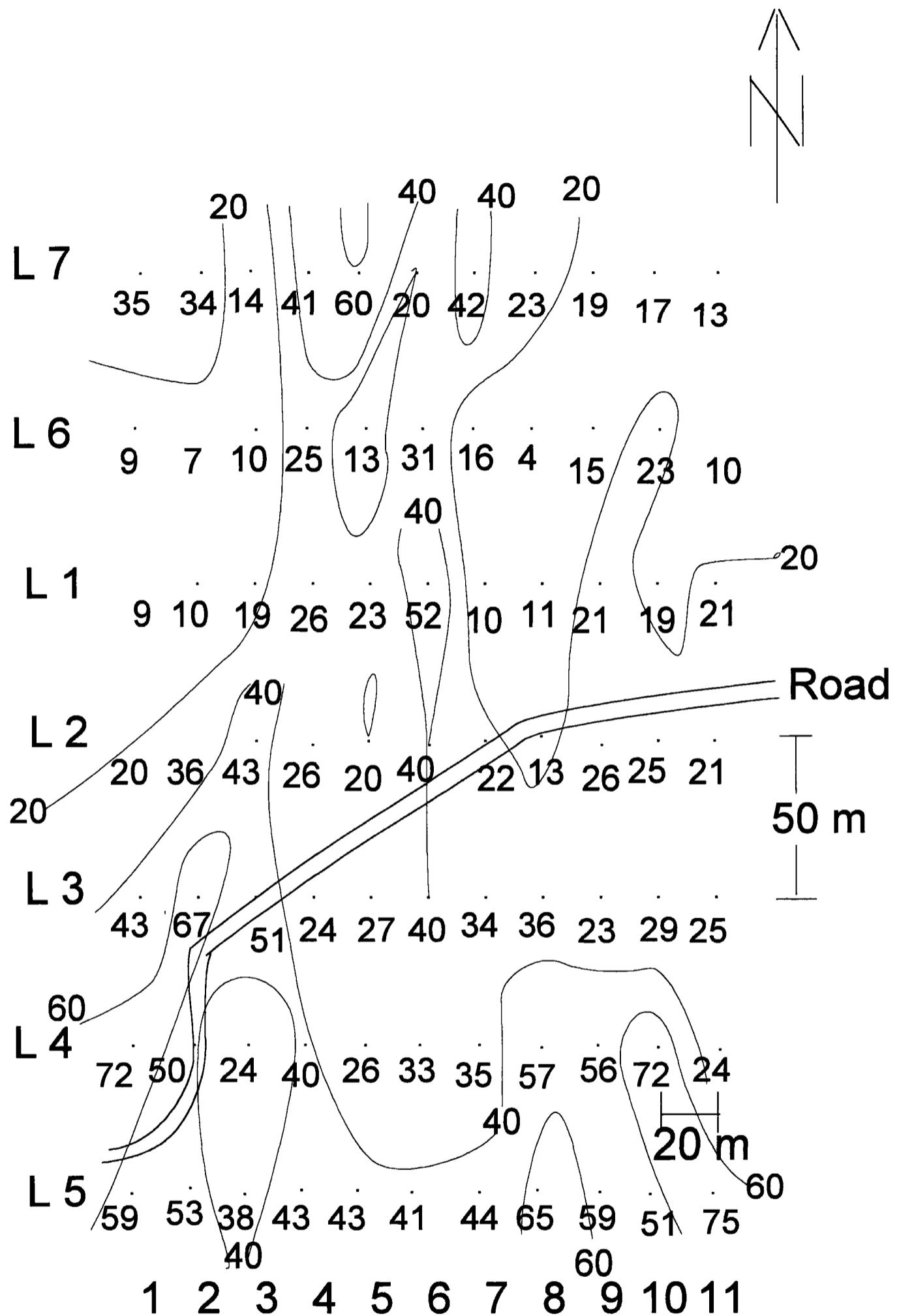
Four additional lines of soil samples were done in the switchback area Lines L4S and L5S extended the coverage another 100 metres further south and Lines L6S and L7S extended the coverage another 100 metres north from the original three soil sample lines. Earlier sampling had demonstrated only low gold values but a few significantly high mercury values. It was thought that the mercury values may be the result of contamination from mercury used by "old-timer" miners while cleaning their gold. Such contamination would most likely be expressed by spot high values not the constant high mercury values seen along the lines for up to 100 metres. The discovery, in October, of the boudin-type mineralization at the Adit having an 85° Az strike suggests that the mercury values from samples taken along 80° lines may indicate the presence of another mineralized area at this location.

North Livingstone Canyon

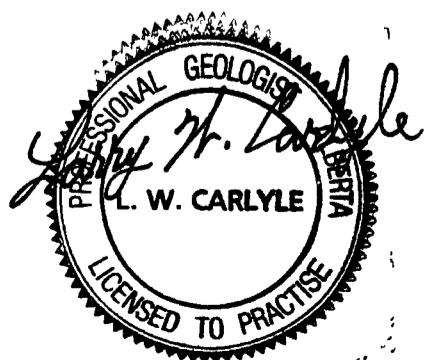
Another line of soil samples (given an NL2 designation) was taken 50 metres north of the line of samples taken in 1999 (See North Livingstone Canyon Soil Samples drawing). Both lines had sample spacings of 25 metres. Gold values are considered to be slightly elevated next to the Big Salmon Fault. There seems to be higher mercury values from samples 1 and 14 in both lines, this may mean that a fault parallel the Big Salmon Fault passes through the sample 14 locations.

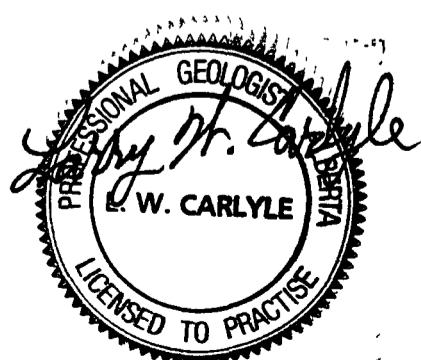
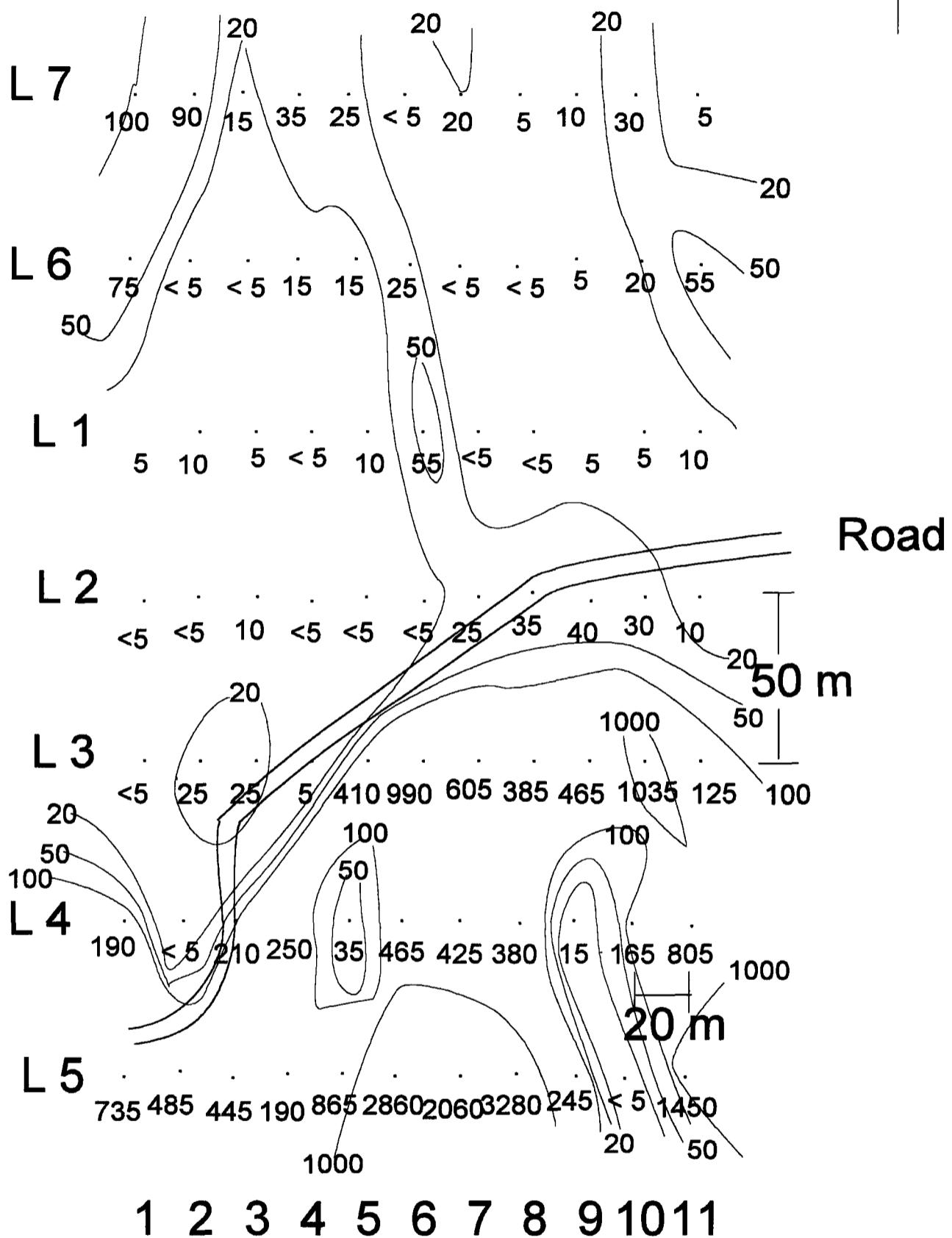


SWITCHBACK
GOLD
 (ppb)



**SWITCHBACK
COPPER (ppm)**





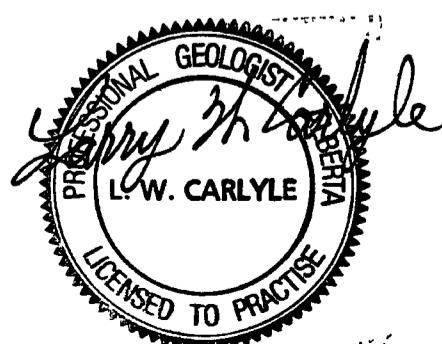
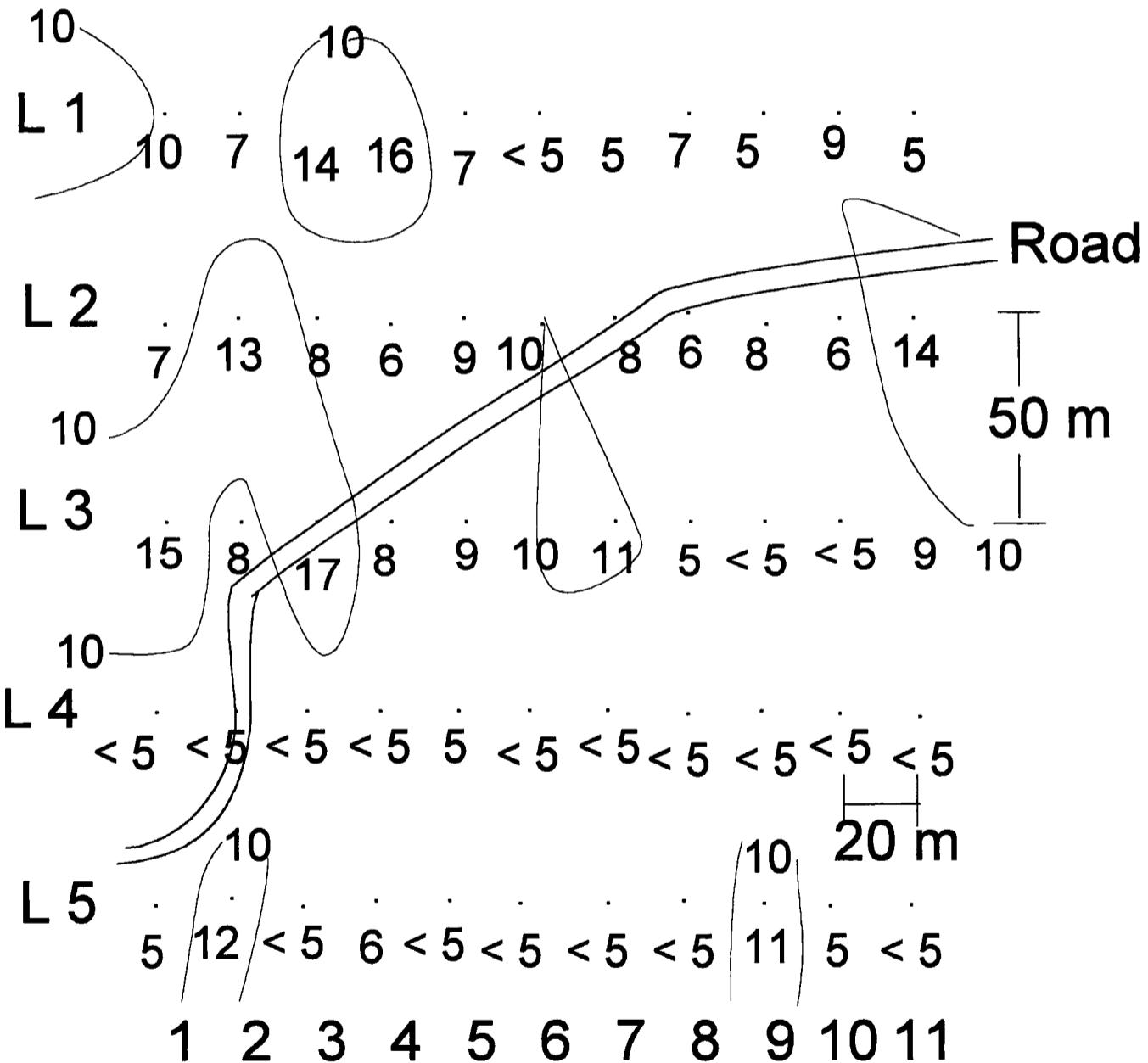


L 7

< 5 < 5 < 5 < 5 < 5 < 5 < 5 < 5 < 5 < 5 < 5

L 6

< 5 < 5 < 5 < 5 < 5 < 5 < 5 < 5 < 5 < 5 < 5



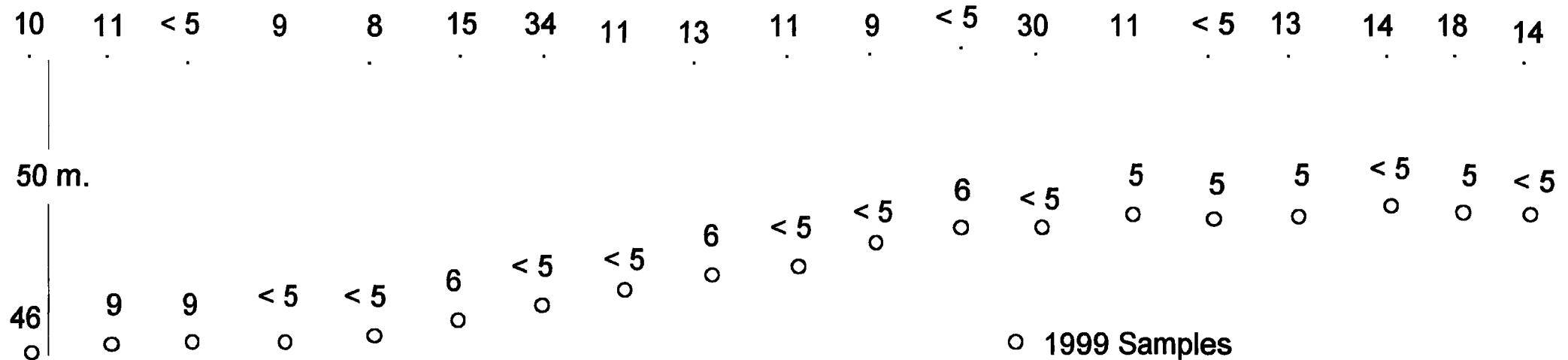
**SWITCHBACK
ARSENIC
PPM**

NORTH LIVINGSTONE CANYON SOIL SAMPLES

Au in ppb.

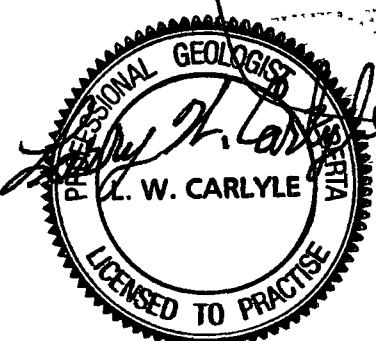
2000 Samples

|25 m|



Livingstone Creek

Canyon



South Livingstone Canyon

Another line of soil samples (given an L2S designation) was taken at 25 metre sample spacings along an old cat road south of the samples taken in 1999 (See South Livingstone Canyon Soil Samples drawing) As on the north side of the canyon higher gold and mercury values were returned from samples nearest the Big Salmon Fault Samples 4 and 5 in both lines returned slightly elevated gold and mercury values, which may indicate a fault passing through the area Sample 9 in both lines returned very slightly elevated gold values

ROCK SAMPLING AND BACKHOE TRENCHING:

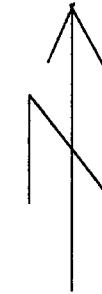
Since by far most of the rock sampling was done during the backhoe trenching, the two things will be described together Rock Sample Tables with gold, silver, copper, arsenic, lead, zinc, and mercury values with sample locations are included as Appendix A Four areas were trenched using the backhoe (See Backhoe Trench Locations drawing)

Switchback Trenches

The two short trenches cut in this area were entirely in dark green amphibolite gneiss The gneiss contained a few more sheared zones and some narrow (up to 3") gougy slips Amphibolite gneiss, which contained quartz-limonite-goethite fracture fillings (and possibly specular hematite), returned better gold values The best of these samples, SB-4, came from about the middle of the east trench and returned 665.3 ppb (0.6 g) Au

SOUTH LIVINGSTONE CANYON SOIL SAMPLES

Livingstone Creek



Canyon

Au in ppb.

○ 1999 Samples

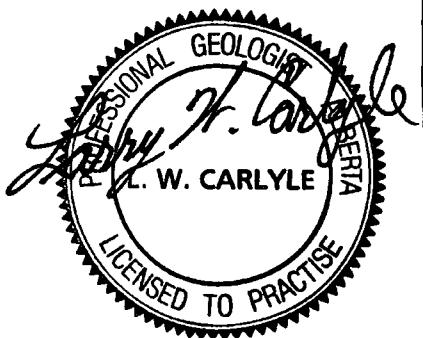
| 25 m |

30 7 < 5 25 13 6 14 14 35 < 5 9 < 5 < 5 5 < 5 12 < 5 < 5 8

2000 Samples

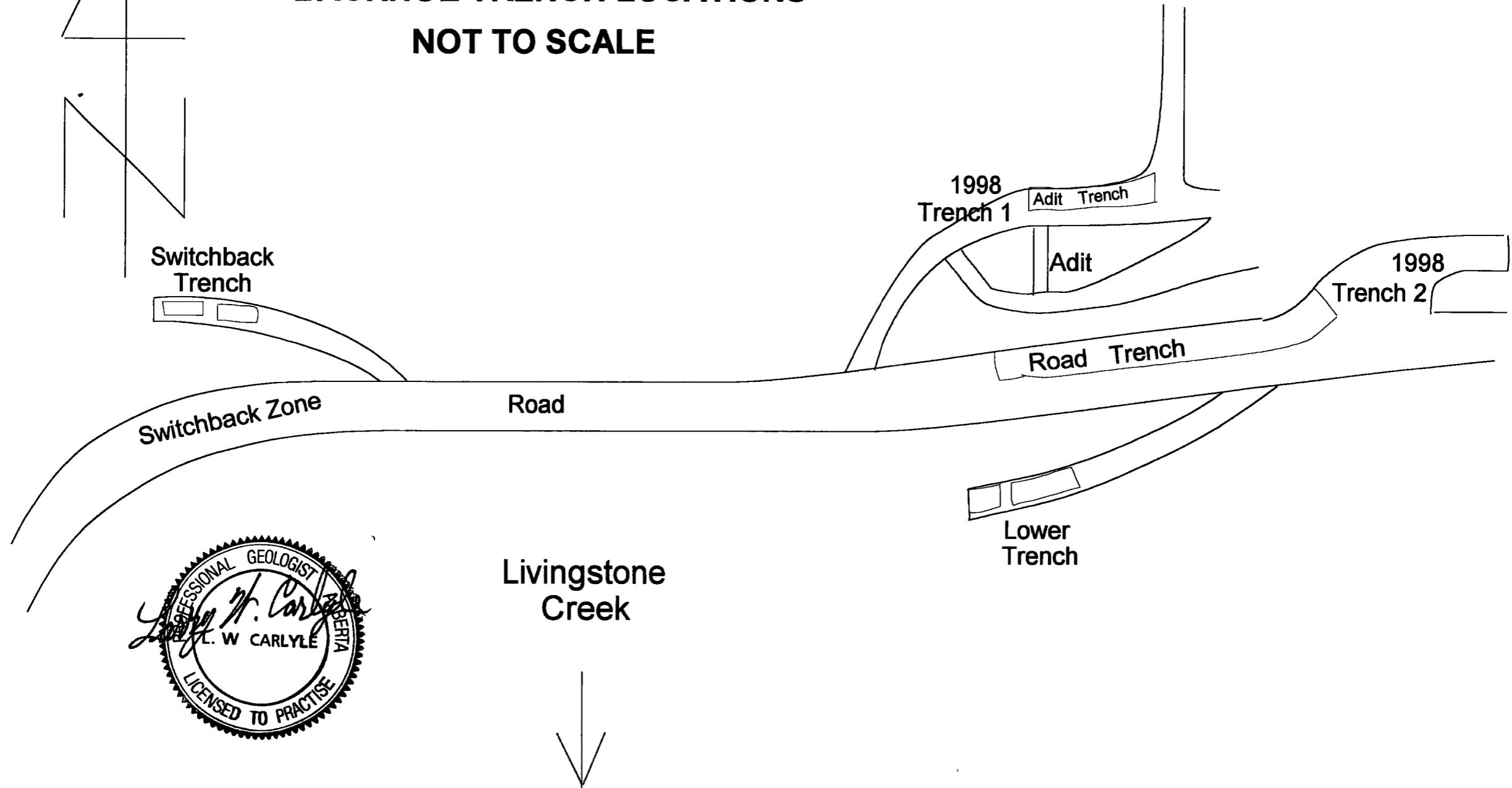
Old Cat Road to Ditch

71 33 16 23 32 21 9 14 25 11 19 18 13 19



BACKHOE TRENCH LOCATIONS

NOT TO SCALE



Trenches South of Road Below Adit

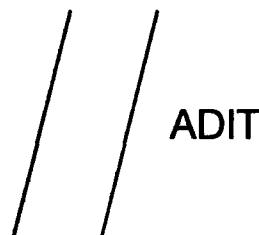
The two short trenches dug below the road contained sheared to blocky amphibolite gneiss with only a few narrow (< 6") gouge slips and minor iron oxide fracture fillings at best. Only three samples (A-15 to A-17) were taken from this area. They were all taken from the extreme western end of the trenches in the most quartz and iron oxide fracture filled areas approximately along strike from the adit. Such areas were thought to be the most promising for increased gold mineralization, however, the samples returned insignificant values for all the important elements. Excavation of the trench in this area was significantly hampered by water flowing from the fault along which the adit had been driven.

Trench in Road Below Adit

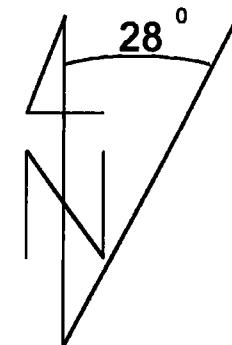
As stated earlier in the Property Geology section this trench and the trench in the 1998 Trench 1 contained symmetrical antiforms striking 85° Az. and having a 15° – 20° plunge to the west. The rocks exposed in the road trench fold did not contain the high grade mineralization discovered later in the trench nearer the adit. The rocks exposed in the trench gave every indication of being mineralized. They were highly crushed and contorted with iron oxide and quartz strongly present. Samples were taken at selected places throughout the trench where it was thought the best results would be found. In fact, two of these samples (A-28 and A-29) returned an average of 2805.8 ppb Au (2.8 g Au) over 7.0 m. These samples taken with Sample A-30 (83.0 ppb Au) are very likely the down dip extension of the 201.2 ppb Au over 20.0 m (0.2 g Au) interval obtained from sampling along the road (Samples A-3 to A-7). These higher grade intervals correlate quite closely to where the mineralized fault, along which the adit was driven, would cross the road (see Road Level Samples drawing).

ROAD LEVEL SAMPLES

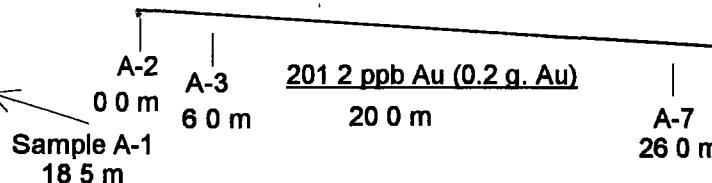
NOT TO SCALE



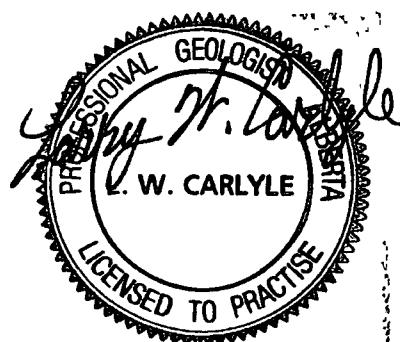
See Rock Sample Description Table
for more Complete Details



Sta
AROAD



1998
Trench # 2
A-14
64.5 m



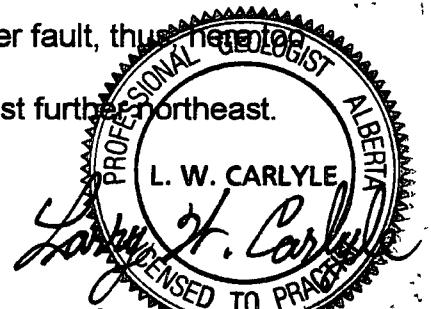
Adit Backhoe Trench

It is somewhat prophetic that the last trench dug in the program would be the one in which mineralization would be located. The mineralization, as exposed within the trench, appears to be a boudin trapped in the nose of an upright antiform. The mineralization seems to have an average width approaching 2 metres and a vertical depth of also 2 metres. This fact would explain why the cat trenching done by Archer, Cathro and Associates in 1983 to open up the adit did not find a downward extension to the mineralization as would be expected from a vein.

Almost the entire length of the trench exposed the mineralized boudin, 4.5 g Au over 14.5 metres (See Adit Backhoe Trench drawing). The boudin, as exposed in the trench, was cut off at both ends by faults. The significant zones of mineralization located in the road and the road trench directly along strike from the original adit suggested the mineralization probably extends further in a southwesterly direction. The mineralization is cut off at the eastern end of the trench by another fault, thus it is possible that another segment of mineralized boudin may exist further northeast.

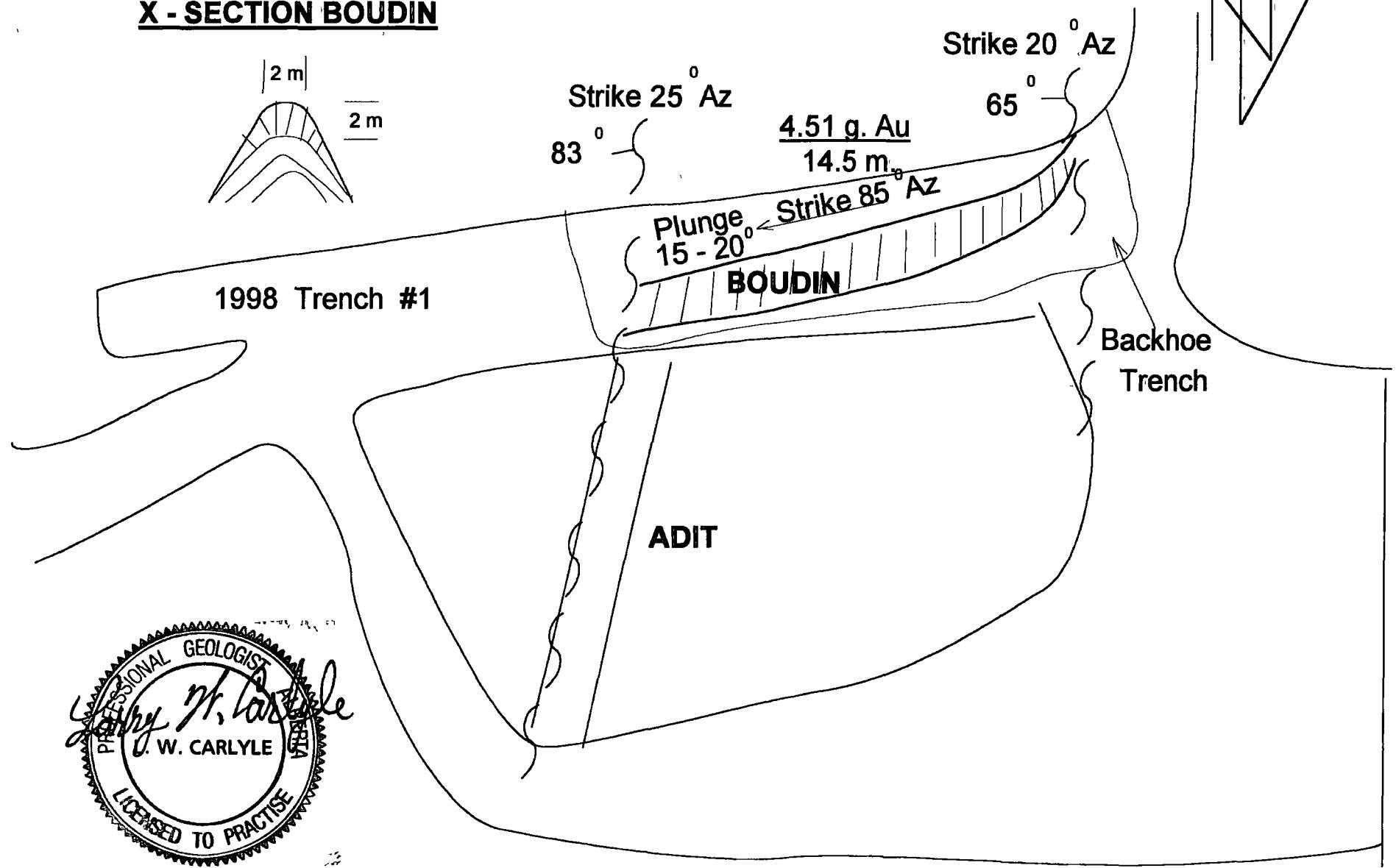
CONCLUSIONS:

- 1 If the original adit was driven along a mineralized portion of the fault as is suggested by the evidence which remains; the writer's original hypothesis of the major north-south striking faults providing a plumbing system for mineralizing fluids may still be valid. It is not clear why the mineralization within these faults would have boudin-like shapes and not be more vein-like. Carlyle has seen mineralized boudins before at the Mosquito Creek Gold Mine in the Wells area of British Columbia. There, the mineralized boudins were clearly fed by mineralized quartz-carbonate veins coming up faults. These faults were thought to be axial plane faults in a large antiform (See



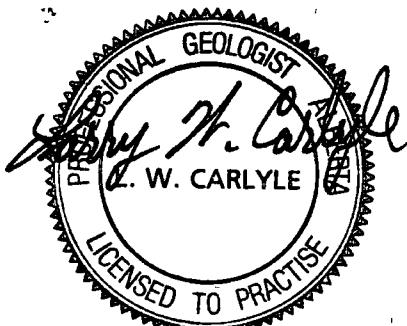
ADIT BACKHOE TRENCH NOT TO SCALE

X - SECTION BOUDIN



Hypothetical Formation of Boudin Mineralization at Mosquito Creek Gold Mine, Wells, B C drawing) The mineralized boudins are considered to be located in the noses of small drag folds formed as the antiform was created A similar situation may exist at Livingstone Drag folds may have resulted in the top portions of Yukon Tanana rocks from the Slide Mountain rocks being thrust over them The mineralizing fluids may still have come from a buried intrusive as suggested in the TAG (thermal aureole gold) deposit model

- 2 The mineralized boudins at Mosquito Creek existed in sub-parallel zones Individual boudins would end but reappear further along the plunge of the folds At Livingstone, the boudins appear to be displaced by faults but may well be relocated further along the plunge of the fold It is entirely possible that, like Mosquito Creek, the mineralized boudins may form sub-parallel zones The indicated mineralization at the Switchback Showing may be a parallel zone of mineralization to that exposed at the adit
- 3 The mineralization in the old adit may have been moved from the area of mineralization located on the road The small fault at the east end of the boudin exposed in the trench also appears to have sinistral movement This evidence is contrary to the published data of other geologists who have attributed dextral movement to the north-south striking faults
- 4 The discovery of quartz-galena-gold mineralization in boudin form suggests that the more dominant quartz-magnetite-gold mineralization may also be present in the same mode

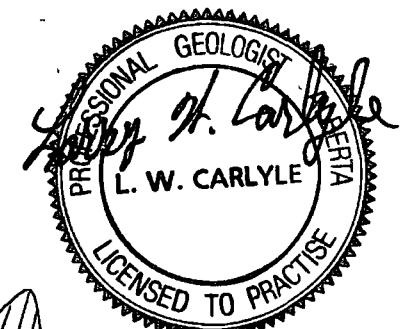
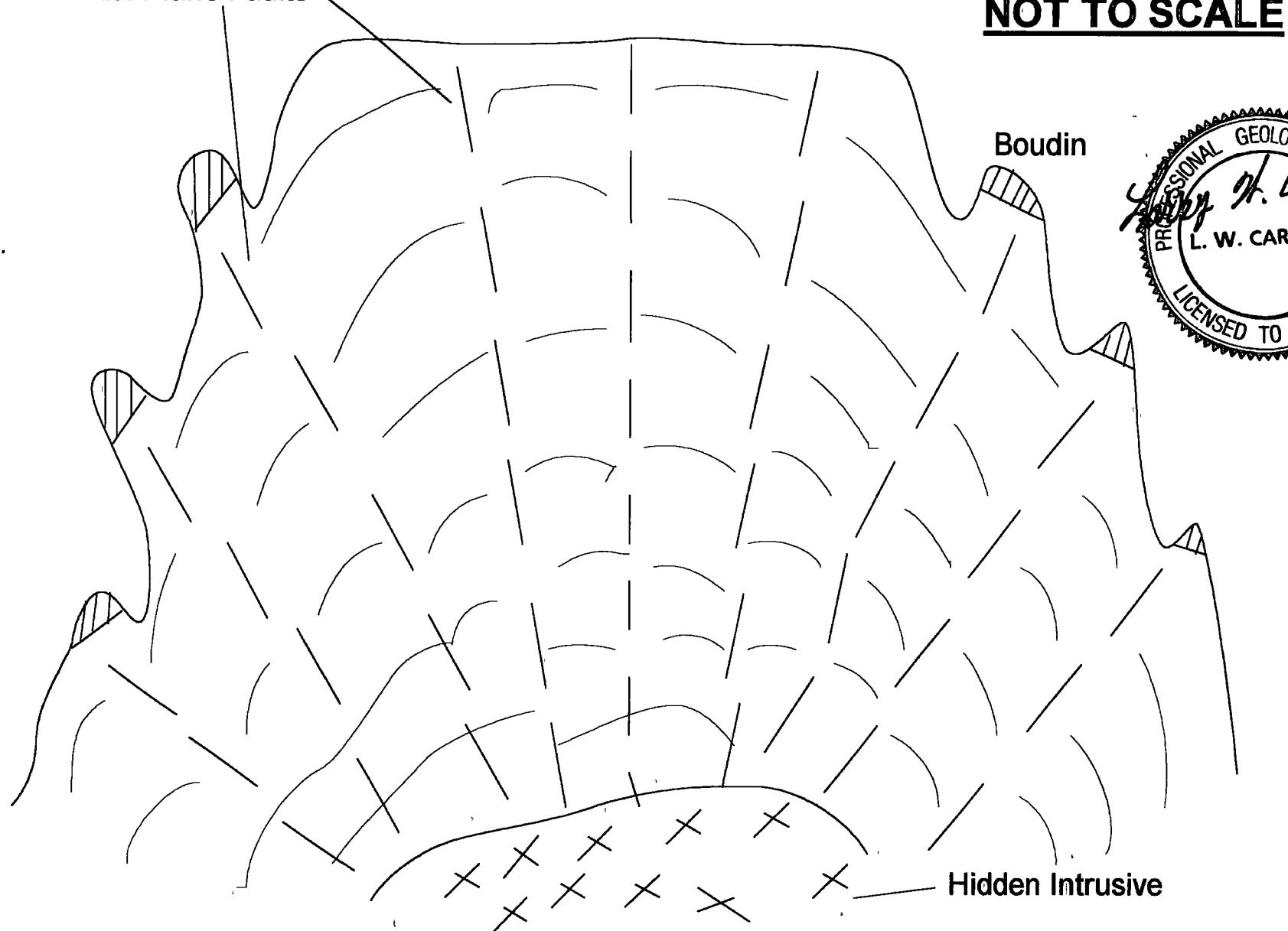


HYPOTHETICAL FORMATION OF BOUDIN MINERALIZATION AT MOSQUITO CREEK GOLD MINE, WELLS, B.C.

Axial Plane Faults

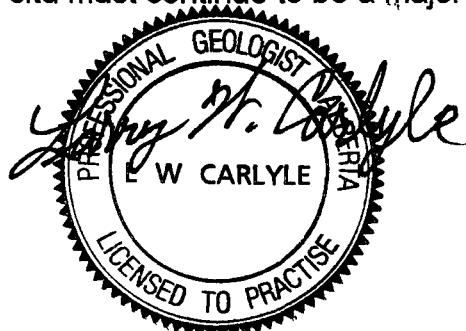
ANTIFORM

NOT TO SCALE



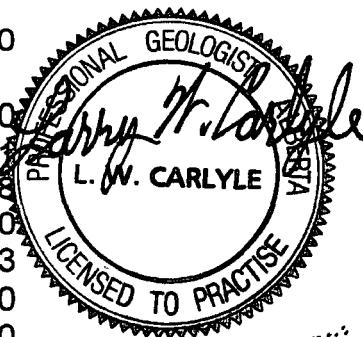
RECOMMENDATIONS:

- 1 The boudin exposed at the adit is estimated to contain approximately 100 short tons of mineralization. If six to ten such segments could be located, enough mineralization may be available to warrant bringing a small mill onto the property. This would provide a cash flow, which would allow continued exploration of the property.
- 2 With the discovery of the boudin style of mineralization, previous work done on the property has to be re-examined to see how it may lead to the location of additional zones of boudin mineralization. The mineralization located at both the Switchback and Ron Trench areas may be examples.
- 3 The small size expected for the boudins will make them a difficult target to locate. Tightly spaced soil sampling in areas of thin overburden, as has been the practice, will probably continue to be the best tool for finding additional mineralized areas on the claim block. More care will now have to be given to expecting mineralization along the strike direction (85° Az) of the boudin mineralization, as well as continuing to look for mineralization along the north-south striking (350° Az) faults where mineralization has always been anticipated.
- 4 The dominant quartz-magnetite-gold mineralization, as demonstrated from the quantities recovered during placer mining, has never been located in outcrop. The search for this type of mineralization in situ must continue to be a major endeavor during exploration of this property.



STATEMENT OF COSTS:

Geologist Field Work	(July 2 – July 7)	
	5 days @ \$300/day	\$ 1,500.00
	(July 12 – July 18)	
	7 days @ \$300/day	\$ 2,100.00
	(Aug 23 – Aug 30)	
	8 days @ \$300/day	\$ 2,400.00
	(Sept 12)	
	1 day @ \$300/day	\$ 300.00
	(Sept 19)	
	1 day @ \$300/day	\$ 300.00
	(Oct 27 – Oct 31)	
	5 days @ \$300/day	\$ 1,500.00
Assaying		\$ 6,089.95
Sample Shipment		\$ 130.28
Equipment Rental		\$19,570.00
Air Charters		\$ 1,575.53
Room & Board (25 person/days @ \$35/day)		\$ 875.00
ATV Rental (3 weeks @ \$125/wk)		\$ 375.00
Miscellaneous Fuels & Oil		\$ 200.00
VLF-EM Rental (4 days @ \$100/day)		\$ 400.00
Field Supplies (Flagging, bags, topofil, etc)		\$ 275.00
Office Supplies (Photocopying, paper, etc)		\$ 200.00
Report Writing		\$ 1,500.00
	TOTAL:	\$39,290.72



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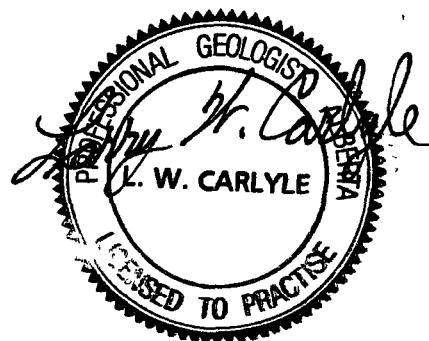
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STATEMENT OF QUALIFICATIONS

I, LARRY W CARLYLE, do certify

- 1 That I am a professional geologist, resident at 74 Tamarack Drive, Whitehorse, Yukon Y1A 4Y6
- 2 That I hold a B Sc Degree in geology from the University of British Columbia (1970)
- 3 That I am a Fellow of the Geological Association of Canada (F - 4355)
- 4 That I am a Registered Professional Geologist in the Association of Professional Engineers, Geologists, and Geophysicists of the Province of Alberta (41097)
- 5 That I have practiced my profession as a mine and exploration geologist for over twenty years
- 6 The conclusions and recommendations in the attached report are based on work I performed or supervised on the property, and on a review of the references cited

DATED at Whitehorse, Yukon, this 6th day of March, 2001



APPENDIX A
ROCK SAMPLE TABLES

ROCK SAMPLE TABLE

Road Samples Below Adit

Sample #	Location	Width (m)	Au (ppb)	Ag (ppm)	Cu (ppm)	As (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)	Description
A - 1	18.5 m W of Sta AROAD	Grab	0.6	< 0.3	22	2	7	92	30	Relatively unoxidized amphibolite gneiss (Chlorite schs) Sheared and laminated Very few iron oxide ff Some oxidized feldspar porphyroblasts (?)
A - 2	Sta AROAD to 6 m E	6 m	35	0.4	22	4	17	97	160	Lt Brn sheared and oxidized Ag with a small zone of fresher Ag (amphibole gneiss)
A - 3	6 - 10.5 m	4.5 m	128.7	0.4	26	5	13	51	150	Lt Brn sheared and oxidized Ag
A - 4	10.5 - 13.5 m	3 m	151.7	0.6	11	8	38	150	60	Oxidized and ff + fresher Ag
A - 5	13.5-15.5 m	2 m	100.9	0.4	12	4	16	50	115	Sheared and Lt brn oxidized Ag
A - 6	15.5-16 m	0.5 m	70.2	0.3	2	< 2	4	8	70	Quartz + orange oxidized and ff Ag
A - 7	16-26 m	10.0 m	275.3	0.6	23	4	13	47	130	Sheared Lt Brn oxidized Ag
A - 8	26-30 m	4.0 m	19.3	0.3	76	100	17	145	95	Red-brn oxidized Ag + quartz
A - 9	30-33 m	3.0 m	1.1	< 0.3	32	35	19	45	25	Blocky black wad in Ag + quartz
A - 10	33-33.5 m	0.5 m	0.8	0.3	3	< 2	< 3	3	10	Quartz with strong brn oxidized and ff Ag
A - 11	33.5-40 m	6.5 m	7.4	0.4	66	43	18	124	75	Lt - Dk brn oxidized Ag + fresher Ag Trace quartz and hematite (?)
A - 12	40-48 m	8.0 m	31.6	0.3	48	14	9	107	35	Lt - Dk brn oxidized Ag + fresher Ag Trace quartz and hematite (?)
A - 13	48-56 m	8.0 m	11.1	< 0.3	19	21	5	45	55	Sheared red-brn oxidized Ag + Weak fresher Ag
A - 14	56-64.5 m	8.5 m	9.8	< 0.3	26	27	12	57	65	Sheared red-brn oxidized Ag + Weak fresher Ag

201.2 ppb Au = 0.2 g. Au
20.0 m 20.0 m

ROCK SAMPLE TABLE

Samples from Trench South of Road

Sample #	Location	Width (m)	Au (ppb)	Ag (ppm)	Cu (ppm)	As (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)	Description
A - 15	62 m W of Main Road Junction	Grab	4 4	< 0 3	26	3	3	30	10	Laminated oxidized Ag with orange-brn iron oxide ff Minor quartz and oxidized Pyrite in ff
A - 16	66 m W of Main Road Junction	Grab	4 9	0 3	7	< 2	< 3	24	60	Quartz lenses in oxidized Ag + quartzite (?) Up to 2% iron oxide ff No visible sulphides
A - 17	35 m W of Main Road Junction	Grab	17 4	< 0 3	27	91	20	43	40	Strongly crushed Ag + quartzite (?) Minor quartz Strong red-brn iron oxide. No visible sulphides

Samples from Trench in Road Below Adit

Sample #	Location	Width (m)	Au (ppb)	Ag (ppm)	Cu (ppm)	As (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)	Description
A - 18	70 m E of Sta AROAD	4 - 10"	6 5	< 0 3	39	50	9	64	85	Gouge, grey to red-brn iron oxide Ag + quartz
A - 19	69 5 m E of Sta AROAD	0 3 m	13	0 3	7	5	< 3	8	< 10	Crushed quartz with 2-3% red-brn iron oxide Trace sulphide ?
A - 20	70 - 72 m E Sta AROAD	2 0 m	26 2	< 0 3	36	35	21	46	50	Crushed & weakly gougy sericite schs + Ag + quartz fragments No visible sulphides In HW of gouge
A - 21	48 m E of Sta AROAD	Grab	11 7	< 0 3	6	4	4	33	15	Large white quartz boudin with up to 2 - 3% iron oxide in ff No visible sulphides
A - 22	40 m E of Sta AROAD	Grab	13.4	13	131	25	656	93	265	Dk Brn iron oxidized & wad ff Ag Small white quartz lenses and ff No visible sulphides Has strong contorting and faults in strongly crushed and altered rock Probably originally Ag

ROCK SAMPLE TABLE

Samples from Trench in Road Below Adit

Sample #	Location	Width (m)	Au (ppb)	Ag (ppm)	Cu (ppm)	As (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)	Description
A - 23	25 m E of Sta AROAD	0.5 m	4.4	0.3	28	48	7	16	20	Lat lying boudin of grey-white quartz Graphitic schs alo W & FW 2 - 3% brn iron oxide ff No visible sulphide
A - 24	25 - 27 m. E Sta AROAD	2.0 m	25.5	< 0.3	33	32	11	68	170	HW of Sample A - 23 Crushed & altered Ag Strong orange-brn iron oxide Includes crushed quartz & graphit No visible sulphides
A - 25	18 - 20 m E Sta AROAD	2.0 m	24.9	< 0.3	24	5	4	52	50	ip of material steepens to ~ 40° W Crushed & contorte Ag + quartz boudins Up to 2% iron oxide ff
A - 26	13 - 18 m E Sta AROAD	5.0 m	123.0	0.3	9	5	9	34	115	Highly crushed & contorted altered Ag + quartz lenses + boudins Strong orange-brn iron oxide (3+%) Numerous crinkle faults vertical to steep E dips
A - 27	10 - 13 m E Sta AROAD	3.0 m	26.9	< 0.3	7	< 2	28	51	40	Fractured & altered Ag Up to 3% orange-brn iron oxide ff Trace Wad Hematite ?
A - 28	7 - 10 m E Sta AROAD	3.0 m	6153.8	20.2	29	25	71	177	2060	Fractured dark green Ag 1.5% - 2% iron oxide ff Some small quartz lenses (< 1/4") Trace hematite + Wad
A - 29	3 - 7 m E of Sta AROAD	4.0 m	294.8	0.9	7	8	20	124	75	Dark grn fractured Ag with iron-quartz-hematite ff ff. up to 1/2" wide Iron oxide up to 2%
A - 30	m E - 3m Sta AROAD	6.0 m	83.0	< 0.3	25	6	22	104	160	West End of Trench 1 Fractured & blocky dark grn Ag 1 - 1.5% iron oxide ff Trace quartz, Wad, & hematite

2805.8 ppb Au = 2.8 g Au
7.0 m 7.0 m

ROCK SAMPLE TABLE

Samples from Trench along 1998 Trench 1

Sample #	Location	Width (m)	Au (ppb)	Ag (ppm)	Cu (ppm)	As (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)	Description
A - 31	27 0 m E of Adit	Grab	144 3	< 0 3	7	7	3	109	165	Grab off E end of trench Brn iron oxide stained & f f altered Ag Trace quartz, oxidized Py crystals (1/16") Hematite ? Minor Wad
A - 32	23 5 - 27 m E of Adit	3 5 m	49 9	< 0 3	16	11	17	44	610	Crushed & gougy white quartz boudins in altered Ag Minor graphitic & iron streaks up to 2" wide Trace oxidized Py crystals. Up to 2% iron oxide fract in qtz Contact @ 23 5 m Strikes 20° Az Dips 65° W
A - 33	15 5-17 5 m E of Adit	2 0 m	10999 8	207 9	250	< 2	22894	10	250	Highly crushed, altered Ag with strong quartz 4 - 5% yellow to dk brn iron oxides Up to 1% PbS Tr Py & hematite E contact strikes 25° Az
A - 34	11 5-15 5 m E of Adit	4 0 m.	31 0	1 5	28	17	346	243	540	Dk Grn Ag with up to 2% brn iron oxide f f Minor qtz in f f Hematite ? Some orange & brn iron staining
A - 35	9 5 - 11 5 m E of Adit	2 0 m	13972 7	219 2	42	< 2	24594	3	100	Boudin of highly fract Qtz with 3-5% PbS Tr Arseno? 2 - 3 % yellow & brn iron oxide f f. Minor Wad <u>High Graded Sample</u>
A - 36	7.0 m	2 m true width	1511 4	6 9	77	6	810	9	20	Fract & crushed quartz with 2% iron oxide f f Trace Wad & PbS within highly altered Ag
A - 37	3 0 m	1 5 m true width	2889 4	20 5	375	8	1980	12	505	Fract & crushed quartz in highly altered Ag Up to 1 % PbS and Wad Tr chalcopyrite and malachite
A - 38	1 m E-1 m W of Adit	2 0 m	16 9	0 3	26	16	35	65	645	Fract & crushed altered Ag and quartz 2-3% yellow-brn iron oxide f f No visible mineralization Strike 25° Az Dip 83° W

$$4510 \text{ ppb Au} = \frac{4.5 \text{ g Au}}{14.5 \text{ m} \quad 14.5 \text{ m}}$$

ROCK SAMPLE TABLE

Switchback Trenches

Sample #	Location	Width (m)	Au (ppb)	Ag (ppm)	Cu (ppm)	As (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)	Description
SB - 1	156.5 m W of main road	Grab	7.5	0.5	35	13	43	66	210	Light cream coloured mud Weak iron oxide with pieces up to 2" long of amphibolite gneiss (Chlorite schist ?) No visible sulphides.
SB - 2	134.0 m W of main road	Grab	3.3	< 0.3	22	18	15	61	40	Dark red-brown gouge with laminated amphibolite gneiss No visible sulphides
SB - 3	121.5 m W of main road	0.3	11.8	< 0.3	24	9	33	62	25	Red-brown gouge from thrust fault dipping E @ 55 - 60°
SB - 4	116.5 m W of main road	Grab	665.3	< 0.3	7	< 2	14	14	30	Dark green amphibolite gneiss with quartz-limonite-goetite (?) fracture fillings Trace specular hematite.
SB - 5	108.0 m W of main road	Grab	25.6	< 0.3	5	< 2	19	14	25	Dark green amphibolite gneiss with quartz-limonite-goetite (?) fracture fillings More specular hematite than above
SB - 6	103.0 m W of main road	Grab	83.1	< 0.3	7	< 2	13	13	20	White quartz stringer striking N-S through the trench Red-brown & cream iron oxide fracture fillings Strongly sheared & contorted amphibolite gneiss some dipping east Trace specular hematite ?

ROCK SAMPLE TABLE

Miscellaneous Samples

Sample #	Location	Width (m)	Au (ppb)	Ag (ppm)	Cu (ppm)	As (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)	Description
L - 1	N Fork Livingstone	Grab	< 5	< 0.1	30	< 5	4	48	< 5	Sheared quartz lenses and iron oxidized schs Tr oxidized py crystals < 1/16". This zone appears to lie under a graph schs layer. Schistosity dips NE @ ~ 35 deg
L - 2	N Fork Livingstone	Grab	7	< 0.1	13	< 5	4	11	< 5	Actinolite-Chlorite-Garnet(?) Skarn ? Oxidized Py crystals up to 1/8" Tr ZnS(?) & Cu (?)
L - 3	At RW1-5 soil sample location	Grab	25	0.1	47	< 5	7	39	5	Iron oxidized vuggy & cockscombed quartz lense in quartz-biotite schist No visible mineralization
Ag	At ~ 12 m E of GPS Sta AROAD	Grab from Road Cut	1900	4.4	2	< 5	109	122	865	Amphibolitic gneiss with iron oxide f.f & oxidized Py
Adit	2 m E of Adit	Grab from Trench 1 cutbank	178	0.3	3	25	9	10	85	Fract Quartz lense with Tr PbS and Py
T3W	~ 85 m from E End	Grab from Trench 3 W	48	0.8	5	41	62	15	105	Highly fract Quartz with Tr PbS and Py
T3W-1	~ 95 m from E End	Grab from Trench 3 W	141	0.4	12	< 5	16	17	55	Highly fract Quartz with Tr PbS and Py Marcasite ? Arsenopyrite ?

APPENDIX B
SOIL SAMPLE TABLES

SOIL SAMPLE TABLE

Livingstone Canyon Soil Samples

Sample #	Location	Au (ppb)	Ag (ppm)	Cu (ppm)	As (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
	South Fork Cottoneva Stream Sed							
Elev 1060 m.		28	< 0.1	23	< 5	6	47	< 0.1

Samples along road on ridge south of Livingstone Canyon

L2S - 1	0 E	71	0 2	61	< 5	21	58	< 5
L2S - 2	25 E	33	< 0.1	25	< 5	12	44	< 5
L2S - 3	50 E	16	< 0.1	21	< 5	12	42	< 5
L2S - 4	75 E	23	< 0.1	21	< 5	12	49	15
L2S - 5	100 E	32	< 0.1	27	< 5	19	53	10
L2S - 6	125 E	21	< 0.1	8	< 5	9	31	< 5
L2S - 7	150 E	9	< 0.1	26	6	13	52	< 5
L2S - 8	175 E	14	< 0.1	19	< 5	12	45	< 5
L2S - 9	200 E	25	< 0.1	13	< 5	16	58	< 5
L2S - 10	225 E	11	< 0.1	20	< 5	15	53	< 5
L2S - 11	250 E	19	< 0.1	28	< 5	14	60	< 5
L2S - 12	275 E	18	< 0.1	31	< 5	17	60	< 5
L2S - 13	300 E	13	< 0.1	15	< 5	< 2	17	20
L2S - 14	325 E	19	< 0.1	28	< 5	7	33	20

Samples 50 m N of 1999 North Livingstone Line

Sample #	Location	Au (ppb)	Ag (ppm)	Cu (ppm)	As (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
NL2 - 1	0 E	10	< 0.1	19	< 5	11	38	1760
NL2 - 2	25 E	11	0.2	11	< 5	9	33	< 5
NL2 - 3	50 E	< 5	0.2	31	18	11	55	2450
NL2 - 4	75 E	9	< 0.1	13	< 5	< 2	35	830
NL2 - 5	100 E	8	< 0.1	17	< 5	8	38	1470
NL2 - 6	125 E	15	< 0.1	14	< 5	12	37	1125
NL2 - 7	150 E	34	< 0.1	15	< 5	10	43	845
NL2 - 8	175 E	11	< 0.1	14	< 5	12	55	755
NL2 - 9	200 E	13	< 0.1	10	< 5	8	35	< 5
NL2 - 10	225 E	11	< 0.1	11	< 5	7	31	< 5
NL2 - 11	250 E	9	< 0.1	12	< 5	11	35	< 5
NL2 - 12	275 E	< 5	< 0.1	20	< 5	10	42	< 5
NL2 - 13	300 E	30	< 0.1	24	6	16	42	890
NL2 - 14	325 E	11	< 0.1	28	< 5	14	54	2010
NL2 - 15	350 E	< 5	0.3	28	< 5	15	55	1415
NL2 - 16	375 E	13	0.1	16	< 5	< 2	14	830
NL2 - 17	400 E	14	0.2	14	< 5	9	28	545
NL2 - 18	425 E	18	< 0.1	23	< 5	16	41	< 5
NL2 - 19	450 E	14	< 0.1	31	< 5	10	55	2180

SOIL SAMPLE TABLE

Switchback Soil Samples

Sample #	Location	Au (ppb)	Ag (ppm)	Cu (ppm)	As (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
L4S - 1	0 E	9	0.3	72	< 5	39	100	190
L4S - 2	20 E	13	< 0.1	50	< 5	18	80	< 5
L4S - 3	40 E	11	0.1	24	< 5	7	42	210
L4S - 4	60 E	18	0.2	40	< 5	< 2	18	250
L4S - 5	80 E	16	< 0.1	26	5	12	48	35
L4S - 6	100 E	13	< 0.1	33	< 5	9	46	465
L4S - 7	120 E	16	< 0.1	35	< 5	11	49	425
L4S - 8	140 E	10	< 0.1	57	< 5	23	87	380
L4S - 9	160 E	24	< 0.1	56	< 5	20	78	15
L4S - 10	180 E	< 5	0.1	72	< 5	17	81	165
L4S - 11	200 E	18	< 0.1	24	< 5	7	41	805

L5S - 1	0 E	6	0.3	59	5	26	86	735
L5S - 2	20 E	28	0.1	53	12	14	70	485
L5S - 3	40 E	17	< 0.1	38	< 5	13	65	445
L5S - 4	60 E	17	< 0.1	43	6	19	61	190
L5S - 5	80 E	9	0.1	43	< 5	11	63	865
L5S - 6	100 E	16	0.2	41	< 5	< 2	34	2860
L5S - 7	120 E	19	0.2	44	< 5	15	63	2060
L5S - 8	140 E	15	0.2	65	< 5	22	86	3280
L5S - 9	160 E	14	< 0.1	59	11	20	85	245
L5S - 10	180 E	< 5	< 0.1	51	5	23	78	< 5
L5S - 11	200 E	10	0.2	75	< 5	15	76	1450

L6S - 1	0 E	14	< 0.1	9	< 5	12	38	75
L6S - 2	20 E	10	< 0.1	7	< 5	12	37	< 5
L6S - 3	40 E	11	< 0.1	10	< 5	8	32	< 5
L6S - 4	60 E	8	0.2	25	< 5	16	41	15
L6S - 5	80 E	34	0.1	13	< 5	< 2	24	15
L6S - 6	100 E	15	0.3	31	< 5	13	45	25
L6S - 7	120 E	25	0.2	16	< 5	9	51	< 5
L6S - 8	140 E	12	0.2	4	< 5	3	21	< 5
L6S - 9	160 E	9	0.1	15	< 5	8	37	5
L6S - 10	180 E	12	< 0.1	23	< 5	11	60	20
L6S - 11	200 E	10	0.2	10	< 5	8	40	55

L7S - 1	0 E	13	0.4	35	< 5	< 2	24	100
L7S - 2	20 E	14	0.3	34	< 5	3	26	90
L7S - 3	40 E	12	0.1	14	< 5	3	26	15
L7S - 4	60 E	21	0.3	41	< 5	10	38	35
L7S - 5	80 E	15	0.3	60	< 5	10	39	25
L7S - 6	100 E	37	< 0.1	20	< 5	10	49	< 5
L7S - 7	120 E	14	0.2	42	< 5	12	79	20
L7S - 8	140 E	13	0.3	23	< 5	13	39	5
L7S - 9	160 E	11	0.3	19	< 5	20	43	10
L7S - 10	180 E	20	0.5	17	< 5	10	43	30
L7S - 11	200 E	11	0.2	13	< 5	11	38	5

SOIL SAMPLE TABLE

Ron Trench Area Soil Samples

Sample #	Location	Au (ppb)	Ag (ppm)	Cu (ppm)	As (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
RL1 - 1	0 E	16	0.1	30	< 5	5	61	1020
RL1 - 2	20 E	13	0.2	54	< 5	14	62	200
RL1 - 3	40 E	30	0.2	67	< 5	11	79	10
RL1 - 4	60 E	57	0.1	48	< 5	13	61	70
RL1 - 5	80 E	16	< 0.1	28	< 5	8	50	< 5
RL1 - 6	100 E	17	< 0.1	45	< 5	15	67	130
RL2 - 1	0 E	12	0.1	32	< 5	6	61	770
RL2 - 2	20 E	25	0.6	82	7	21	94	1370
RL2 - 3	40 E	11	< 0.1	22	< 5	9	45	450
RL2 - 4	60 E	9	< 0.1	36	< 5	9	60	295
RL2 - 5	80 E	17	0.1	21	< 5	8	50	1285
RL2 - 6	100 E	16	< 0.1	29	< 5	9	53	70
RL3 - 1	0 E	14	0.2	60	< 5	6	68	380
RL3 - 2	20 E	14	0.1	54	< 5	13	64	300
RL3 - 3	40 E	14	< 0.1	5	< 5	< 2	11	205
RL3 - 4	60 E	14	0.1	44	< 5	< 2	62	155
RL3 - 5	80 E	16	0.1	28	< 5	9	44	110
RL3 - 6	100 E	26	< 0.1	26	< 5	8	48	430
RL4 - 1	0 E	15	< 0.1	58	< 5	9	78	150
RL4 - 2	20 E	13	< 0.1	29	< 5	11	47	90
RL4 - 3	40 E	17	0.6	30	< 5	4	26	405
RL4 - 4	60 E	19	< 0.1	37	< 5	9	64	250
RL4 - 5	80 E	24	< 0.1	45	< 5	7	60	< 5
RL4 - 6	100 E	20	0.2	26	< 5	8	50	45
RL5 - 1	0 E	37	< 0.1	72	< 5	14	76	15
RL5 - 2	20 E	18	< 0.1	59	< 5	12	68	30
RL5 - 3	40 E	17	< 0.1	26	< 5	8	77	15
RL5 - 4	60 E	13	< 0.1	39	< 5	10	68	15
RL5 - 5	80 E	20	0.1	31	< 5	8	54	20
RL5 - 6	100 E	8	0.1	22	< 5	8	64	35
RL6 - 1	0 E	14	< 0.1	71	< 5	10	70	20
RL6 - 2	20 E	14	< 0.1	56	< 5	9	65	35
RL6 - 3	40 E	13	0.6	34	< 5	3	28	175
RL6 - 4	60 E	12	< 0.1	54	< 5	6	74	20
RL6 - 5	80 E	10	< 0.1	32	< 5	11	60	20
RL6 - 6	100 E	32	< 0.1	49	< 5	11	74	15

SOIL SAMPLE TABLE

YUKON ENERGY MINES
& RUSTIC LIBRARY
PO BOX 1
WHITEHORSE, YUKON Y1A 2C6

Samples West of Road in Gully in Ron Trench Area

Sample #	Location	Au (ppb)	Ag (ppm)	Cu (ppm)	As (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
RW1 - 1	0 W	202	0.3	53	49	18	74	< 5
RW1 - 2	20 W	36	0.1	35	21	16	61	< 5
RW1 - 3	40 W	40	0.1	47	28	16	69	445
RW1 - 4	60 W	31	0.2	82	< 5	16	92	360
RW1 - 5	80 W	40	0.1	42	15	19	65	65
RW1 - 6	100 W	16	0.1	27	7	13	48	55
RW2 - 1	0 W	37	0.2	74	66	19	83	30
RW2 - 2	20 W	32	0.2	59	25	17	77	< 5
RW2 - 3	40 W	8	< 0.1	30	20	10	56	< 5
RW2 - 4	60 W	< 5	< 0.1	23	< 5	2	39	980
RW2 - 5	80 W	27	< 0.1	28	8	12	45	< 5
RW2 - 6	100 W	26	< 0.1	25	< 5	10	40	115
RW3 - 1	0 W	37	< 0.1	67	39	16	81	45
RW3 - 2	20 W	14	< 0.1	53	35	10	80	45
RW3 - 3	40 W	10	< 0.1	24	< 5	9	46	50
RW3 - 4	60 W	19	< 0.1	27	< 5	14	48	35
RW3 - 5	80 W	22	< 0.1	29	< 5	11	51	35
RW3 - 6	100 W	26	< 0.1	49	7	18	72	< 5
RW4 - 1	0 W	32	< 0.1	62	54	19	74	60
RW4 - 2	20 W	19	< 0.1	62	50	15	74	30
RW4 - 3	40 W	20	< 0.1	42	14	16	78	20
RW4 - 4	60 W	17	< 0.1	27	< 5	14	51	30
RW4 - 5	80 W	18	< 0.1	27	< 5	13	49	40
RW4 - 6	100 W	15	< 0.1	37	< 5	15	62	15
RW5 - 1	0 W	39	< 0.1	36	25	14	64	30
RW5 - 2	20 W	22	< 0.1	34	12	11	61	55
RW5 - 3	40 W	19	< 0.1	31	< 5	16	60	95
RW5 - 4	60 W	73	< 0.1	51	13	14	77	75
RW5 - 5	80 W	14	< 0.1	18	< 5	13	45	20
RW5 - 6	100 W	50	< 0.1	25	< 5	13	52	35
RW6 - 1	0 W	32	0.2	79	34	17	89	100
RW6 - 2	20 W	20	< 0.1	33	< 5	13	62	10
RW6 - 3	40 W	57	< 0.1	26	7	12	51	15
RW6 - 4	60 W	13	0.2	18	< 5	10	42	25
RW6 - 5	80 W	17	0.3	44	< 5	15	72	60
RW6 - 6	100 W	24	0.2	56	< 5	38	124	25
RW6 - 7	120 W	67	< 0.1	32	5	20	56	20
RW6 - 8	140 W	38	0.1	21	< 5	12	39	10

SOIL SAMPLE TABLE

Gully East of Camp on Cottoneva Creek - Big Salmon Fault ?

Sample #	Location	Au (ppb)	Ag (ppm)	Cu (ppm)	As (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
C1 - 1	0 E	6	< 0 1	11	< 5	9	23	10
C1 - 2	20 E	8	< 0 1	11	< 5	5	39	5
C1 - 3	40 E	6	< 0 1	14	< 5	5	33	50
C1 - 4	60 E	10	< 0 1	13	< 5	12	34	5
C1 - 5	80 E	11	< 0 1	21	< 5	9	34	5
C1 - 6	100 E	22	< 0 1	18	< 5	11	36	5
C1 - 7	120 E	33	< 0 1	22	< 5	12	33	55
C1 - 8	140 E	17	< 0 1	19	< 5	7	36	10
C2 - 1W	20 W	12	< 0 1	13	< 5	6	28	10
C2 - 1	0 E	14	< 0 1	19	< 5	10	36	10
C2 - 2	20 E	11	< 0 1	12	< 5	9	34	5
C2 - 3	40 E	10	< 0 1	13	< 5	7	32	30
C2 - 4	60 E	7	< 0 1	11	< 5	7	30	5
C2 - 5	80 E	10	< 0 1	18	< 5	7	25	10
C2 - 6	100 E	10	< 0 1	11	< 5	8	31	< 5
C2 - 7	120 E	12	< 0 1	12	< 5	8	36	5
C2 - 8	140 E	9	< 0 1	11	< 5	6	40	< 5

Additional Soil Samples North Rib Little Violet Creek

Sample #	Location	Au (ppb)	Ag (ppm)	Cu (ppm)	As (ppm)	Pb (ppm)	Zn (ppm)	Hg (ppb)
V1 - 1	0 E	7	< 0 1	12	< 5	5	32	< 5
V1 - 2	20 E	12	< 0.1	16	< 5	8	39	< 5
V1 - 3	40 E	8	< 0.1	14	< 5	10	28	20
V1 - 4	60 E	11	0 1	9	< 5	10	26	10
V1 - 5	80 E	12	< 0 1	9	< 5	6	33	< 5
V1 - 6	100 E	12	< 0 1	13	< 5	7	31	< 5
V1 - 7	120 E	16	< 0 1	12	< 5	5	36	55
V1 - 8	140 E	10	< 0 1	32	< 5	9	43	10
V1 - 9	160 E	12	< 0 1	25	< 5	8	32	25
V1 - 10	180 E	16	< 0 1	12	< 5	5	29	< 5
V2 - 1	100 E	15	0.4	77	< 5	11	456	15
V2 - 2	120 E	12	< 0 1	8	< 5	5	29	40
V2 - 3	140 E	10	< 0 1	16	< 5	10	46	5
V2 - 4	160 E	11	0 1	17	< 5	4	58	10
V2 - 5	180 E	10	< 0 1	13	< 5	9	52	25
V2 - 6	200 E	13	< 0 1	14	< 5	7	45	5

APPENDIX C
VLF – EM SURVEY TABLES

VLF-EM Data

VLF Along South Ditch Road

Line	Station	Dip <	Field Strength	Fraser Filter		Line	Station	Dip <	Field Strength	Fraser Filter	
South Ditch Road	BSF	6	149			South Ditch Road	550 E	8	116	11	
	25 E	7	147	0			575 E	6	100	27	
	50 E	4	141	-2			600 E	-2	99	20	
	75 E	9	142	2	X		625 E	-11	133	-8	
	100 E	4	146	-1			650 E	-5	144	-17	
	125 E	7	144	0			675 E	0	145	-5	
	150 E	7	144	0			700 E	1	141	2	
	175 E	4	147	-8			725 E	-1	140	-4	
	200 E	10	142	-9			750 E	0	137	-5	
	225 E	9	138	-9			775 E	4	136	6	
	250 E	14	127	1	X		800 E	0	129	3	
	275 E	14	113	20			825 E	-2	132	-8	
	300 E	8	92	25			850 E	3	136		
	325 E	0	109	17			875 E	3	130		
	350 E	-3	119	6							
	375 E	-6	127	-6							
	400 E	-3	142	-9							
	425 E	0	134	-5							
	450 E	0	131	-1							
	475 E	2	127	-4							
	500 E	-1	135	-14							
	525 E	7	129	-8							

VLF-EM Data

VLF - EM Survey up Road from BSF and into the Cut at Little Violet Creek

Line	Station	Dip <	Field Strength	Fraser Filter		Line	Station	Dip <	Field Strength	Fraser Filter
	BSF - V	9	161				200 E	15	119	
	25 E	12	150				225 E	14	130	1
	50 E	12	136	-1	X		250 E	15	134	-7
	75 E	10	126	10			275 E	21	127	-1
	100 E	4	136	13			300 E	9	92	19
	125 E	5	147	0			325 E	8	130	8
	150 E	9	148	-15			350 E	14	143	
	175 E	15	130	-16						
				-5						

VLF - EM Survey up Road from BSF, through Camp, and on up the Road at Cottoneva Creek

BSF - C	2	178			325 E	5	142	-3
25 E	5	175	-17		350 E	6	148	-3
50 E	11	163	-10		375 E	6	144	-2
75 E	13	152	5	X	400 E	7	157	0
100 E	13	136	6		425 E	5	148	1
125 E	6	134	-8		450 E	7	156	-4
150 E	14	138	-2		475 E	9	156	-7
175 E	13	128	12	X	500 E	10	145	-3
200 E	9	109	13		525 E	9	156	-1
225 E	6	124	8		550 E	11	145	-4
250 E	3	129	1		575 E	12	140	-1
275 E	4	133	-2					4
300 E	4	136						

VLF-EM Data

VLF - EM Survey up Road from BSF, through Camp, and on up the Road at Cottoneva Creek

Line	Station	Dip <	Field Strength	Fraser Filter	Line	Station	Dip <	Field Strength	Fraser Filter	
	600 E	9	144	-						
	625 E	10	146	3						
	650 E	8	143	4						
	675 E	7	152	3						
	700 E	8	158	-2						
	725 E	9	156	-1						
	750 E	7	150							

VLF-EM Data

VLF - EM Survey along Cat Road to the East of the Adit

Page 1 of 3

Line	Station	Dip <	Field Strength	Fraser Filter		Line	Station	Dip <	Field Strength	Fraser Filter	
	Adit	2	114				550 E	8	110	-5	
	25 E	10	121	-6			575 E	9	103	2	X
	50 E	10	118	3			600 E	9	99	8	
	75 E	8	119	-1			625 E	6	96	12	
	100 E	9	127	-1	X		650 E	4	95	15	
	125 E	10	124	2			675 E	-1	96	8	X
	150 E	8	116	5			700 E	-4	105	-7	
	175 E	9	112	3	X		725 E	-1	115	-10	
	200 E	4	116	-5			750 E	3	117	-6	
	225 E	9	122	-2	X		775 E	2	119	-9	
	250 E	9	119	4			800 E	6	123	-11	
	275 E	6	118	-2	X		825 E	8	115	-12	
	300 E	8	111	-2			850 E	11	112	-6	X
	325 E	9	107	4	X		875 E	15	117	8	
	350 E	7	103	2			900 E	10	108	8	X
	375 E	6	121	-5	X		925 E	8	103	-2	
	400 E	8	121	-8			950 E	9	101	0	X
	425 E	10	113	-2	X		975 E	11	96	9	
	450 E	12	104	9			1000 E	6	96	6	
	475 E	8	93	10			1025 E	5	93	1	
	500 E	5	94	0	X		1050 E	6	91	5	
	525 E	5	108	-7			1075 E	4	96		

VLF-EM Data**VLF - EM Survey along Cat Road to the East of the Adit****Page 2 of 3**

Line	Station	Dip <	Field Strength	Fraser Filter		Line	Station	Dip <	Field Strength	Fraser Filter	
	1075 E	4	96				1625 E	-2	95	12	
	1100 E	2	95	5			1650 E	-4	96	9	
	1125 E	3	95	1			1675 E	-5	102	1	X
	1150 E	2	97	0			1700 E	-2	106	-4	
	1175 E	3	102	-1			1725 E	-3	107	-2	
	1200 E	3	103	-2	X		1750 E	-2	108	-4	
	1225 E	4	107	1			1775 E	1	102	-9	X
	1250 E	1	109	5			1800 E	3	95	1	
	1275 E	1	109	1			1825 E	-5	99	13	
	1300 E	3	109	-4			1850 E	-4	116	3	X
	1325 E	3	108	-2			1875 E	-1	115	-8	
	1350 E	3	109	0			1900 E	0	113	-6	X
	1375 E	3	110	0			1925 E	1	113	0	
	1400 E	3	108	0			1950 E	1	113	3	
	1425 E	3	105	-1			1975 E	-2	113	-4	
	1450 E	4	106	-1			2000 E	0	114	-6	
	1475 E	3	105	1			2025 E	3	114	-1	
	1500 E	3	102	2			2050 E	1	114	-5	
	1525 E	2	106	1			2075 E	3	113	-6	X
	1550 E	3	104	-2			2100 E	6	111	0	
	1575 E	4	99	-1			2125 E	4	108	1	
	1600 E	2	96	7	X			5	107	1	

VLF-EM Data

VLF - EM Survey along Cat Road to the East of the Adit

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APPENDIX D
ANALYTICAL CERTIFICATES

GEOCHEMICAL ANALYSIS CERTIFICATE

Carlyle, Larry W. File # A004664 Page 1
74 Tamarack Drive, Whitehorse YT Y1A 4Y6 Submitted by: Larry W. Carlyle

SAMPLE#	Mo	Cu	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	W	Au*	Hg
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm	%	ppm	%	ppm	ppb	ppb		
A-1	4	22	7	92	<.3	38	19	972	3.77	2	<8	<2	12	8	<.2	4	<3	13	.13	.056	36	28	1.03	75	.02	6	1.72	.03	.23	4	.6	30
A-2	5	22	17	97	.4	18	16	1170	4.53	4	<8	<2	11	63	.3	<3	3	21	.84	.283	56	13	.64	183	.01	4	1.43	.02	.27	2	35.0	160
A-3	6	26	13	51	.4	21	11	666	2.94	5	<8	<2	13	22	<.2	<3	4	9	.34	.082	45	19	.14	116<.01	4	.66	.02	.28	4	128.7	150	
A-4	3	11	38	150	.6	10	22	1544	7.57	8	<8	<2	5	115	.3	4	3	58	2.11	.473	57	5	1.55	209	.01	<3	2.23	.03	.11	3	151.7	60
A-5	5	12	16	50	.4	14	9	1071	2.86	4	<8	<2	10	37	.2	<3	11	1.25	.141	40	16	.11	189<.01	5	.54	.03	.25	4	100.9	115		
A-6	5	2	4	8	.3	8	5	172	1.13	<2	<8	<2	3	10	<.2	<3	3	.07	.017	9	24	.02	53<.01	5	.13	.02	.05	5	70.2	70		
A-7	6	23	13	47	.6	23	11	416	2.76	4	<8	<2	15	16	<.2	<3	4	11	.19	.054	48	21	.16	122<.01	5	.62	.02	.32	5	275.3	130	
A-8	3	76	17	145	.3	72	40	1253	8.62	100	<8	<2	6	109	.3	4	<3	155	5.01	.355	57	36	.32	316<.01	4	.96	.01	.14	3	19.3	95	
A-9	6	32	19	45	<.3	112	19	728	3.41	35	<8	<2	2	49	.3	3	<3	70	3.08	.072	15	129	1.72	78	.04	<3	1.51	.01	.06	4	1.1	25
A-10	6	3	<3	3	.3	6	1	168	.59	<2	<8	<2	<2	7	<.2	<3	4	.16	.031	1	29	.05	20<.01	5	.07	.01	.01	7	.8	10		
A-11	5	66	18	124	.4	60	26	687	6.81	43	<8	<2	6	81	<.2	5	<3	143	1.37	.320	45	69	2.42	194	.03	3	3.01	.01	.28	3	7.4	75
A-12	2	48	9	107	.3	79	26	1248	6.53	14	<8	<2	4	95	.5	3	<3	116	4.99	.197	32	85	2.05	190	.04	<3	2.37	.02	.21	2	31.6	35
A-13	4	19	5	45	<.3	26	10	469	2.64	21	<8	<2	10	14	<.2	<3	3	10	.65	.028	34	22	.10	88<.01	3	.48	.01	.25	4	11.1	55	
A-14	3	26	12	57	<.3	33	12	457	3.29	27	<8	<2	9	19	<.2	3	<3	25	.85	.049	31	27	.08	81<.01	3	.48	.01	.22	2	9.8	65	
A-15	6	26	3	30	<.3	13	6	1084	2.26	3	<8	<2	9	26	<.2	<3	3	9	.40	.123	36	21	.12	180	.01	<3	.38	.05	.08	5	4.4	10
A-16	5	7	<3	24	.3	12	5	366	1.68	<2	<8	<2	3	8	<.2	<3	4	.64	.049	8	27	.07	77<.01	4	.26	.01	.14	6	4.9	60		
A-17	21	27	20	43	<.3	29	10	1029	2.71	91	<8	<2	9	16	.3	<3	16	1.51	.034	30	30	.05	602<.01	3	.38	.01	.24	6	17.4	40		
A-18	2	39	9	64	<.3	38	20	571	2.89	50	<8	<2	10	49	.2	<3	17	3.54	.055	38	22	.15	141<.01	<3	.78	.01	.26	2	6.5	85		
A-19	7	7	<3	8	.3	10	3	167	.89	5	<8	<2	4	<2	3	<3	4	.11	.009	3	33	.02	26<.01	5	.09	.01	.05	9	13.0	<10		
A-20	3	36	21	46	<.3	29	18	254	2.46	35	<8	<2	12	27	<.2	<3	4	7	.20	.036	40	15	.05	88<.01	<3	.44	.01	.30	3	26.2	50	
A-21	6	6	4	33	<.3	35	9	316	2.58	4	<8	<2	26	<.2	<3	<3	29	.95	.092	9	62	.59	51	.02	<3	.66	.01	.09	7	11.7	15	
A-22	8	131	656	93	13.0	50	25	237	6.10	25	<8	<2	7	82	.2	3	58	71	.38	.192	38	26	.53	208	.01	3	1.57	.02	.36	2	13.4	265
A-23	8	28	7	16	.3	16	3	126	1.15	48	<8	<2	2	10	<.2	<3	22	.21	.024	8	39	.29	46<.01	3	.35	.01	.05	8	4.4	20		
A-24	3	33	11	68	<.3	34	17	755	4.60	32	<8	<2	7	60	.2	<3	54	3.54	.161	35	34	.63	321<.01	<3	.99	.01	.22	<2	25.5	170		
A-25	4	24	4	52	<.3	27	10	442	2.98	5	<8	<2	13	11	<.2	<3	3	7	.38	.042	45	22	.06	97<.01	<3	.47	.01	.31	5	24.9	50	
A-26	5	9	9	34	.3	20	10	427	2.35	5	<8	<2	12	13	.2	<3	8	.62	.024	36	19	.06	85<.01	4	.44	.02	.22	2	123.0	115		
A-27	5	7	28	51	<.3	12	8	1403	2.90	<2	<8	<2	10	41	<.2	<3	8	1.50	.136	45	18	.20	293<.01	<3	.58	.04	.21	4	26.9	40		
A-28	3	29	71	177	20.2	20	46	1879	12.36	25	<8	3	2	122	1.5	<3	145	1.54	.492	34	11	1.38	763	.04	<3	2.10	.02	.11	3	6153.8	2060	
RE A-28	4	28	71	177	19.7	20	45	1868	12.26	26	<8	3	2	121	1.3	<3	144	1.53	.490	34	14	1.38	756	.04	<3	2.11	.02	.11	3	6596.3	2035	
A-29	2	7	20	124	.9	8	18	1937	6.19	8	<8	<2	3	114	.4	<3	3	40	2.78	.537	58	6	.48	161	.02	<3	1.23	.04	.10	3	294.8	75
A-30	2	25	22	104	<.3	15	15	2300	5.28	6	<8	<2	4	64	.4	<3	3	25	3.91	.261	40	13	.19	260<.01	<3	.74	.02	.14	<2	83.0	160	
A-31	3	7	3	109	<.3	11	13	1610	5.59	7	<8	<2	6	120	.3	<3	20	2.52	.463	76	8	.10	197	.02	<3	.84	.04	.18	2	144.3	165	
A-32	4	16	17	44	<.3	18	8	438	2.41	11	<8	<2	9	15	<.2	<3	7	.21	.057	30	20	.06	86<.01	<3	.48	.01	.21	3	49.9	610		
STANDARD C3/DS2	26	66	34	172	5.4	39	11	779	3.47	59	18	4	21	30	23.2	16	22	77	.57	.094	19	170	.61	154	.09	17	1.83	.04	.17	15	199.0	855
STANDARD G-2	3	4	4	43	<.3	9	4	536	2.09	2	<8	<2	4	74	<.2	<3	37	.66	.102	8	76	.60	228	.14	3	.93	.07	.47	2	-	-	

GROUP 1D - 0.50 GM SAMPLE LEACHED WITH 3 ML 2-2-2 HCl-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 10 ML, ANALYSED BY ICP-ES.
 UPPER LIMITS - AG, AU, HG, W = 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.

ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPM.

- SAMPLE TYPE: ROCK R150 60C AU* BY ACID LEACHED, ANALYZE BY ICP-MS. (10 gm)

HG GROUP 1C - ANALYSIS BY FLAMELESS AA FROM A.R. LEACH. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: NOV 20 2000 DATE REPORT MAILED: Dec 6/00 SIGNED BY: TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



Carlyle, Larry W. FILE # A004664

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SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba %	Ti %	B %	Al %	Na %	K %	W ppm	Au* ppb	Hg ppb
A-33	10	250	22894	10	207.9	9	1	157	5.64	<2	<8	15	3	118	1.2	<3	285	5	.07	.078	4	28	.02	63<.01	<3	.15	.31	.06	8	10999.8	250	
A-34	3	28	346	243	1.5	27	57	4778	14.91	17	<8	<2	3	95	3.7	<3	<3	218	6.09	.292	27	14	1.68	837	.04	<3	2.47	.01	.11	<2	31.0	540
A-35	8	42	24594	3	219.2	6	1	70	.54	<2	<8	13	2	37	45.6	<3	1436	1	.04	.003	<1	42	.01	57<.01	<3	.03<.01	<.01	10	13972.7	100		
A-36	6	77	810	9	6.9	8	3	348	1.03	6	<8	<2	2	7	<.2	<3	6	4	.02	.005	5	28	.02	81<.01	<3	.11	.01	.05	6	1511.4	20	
A-37	9	375	1980	12	20.5	10	4	402	1.24	8	<8	7	2	11	.5	<3	34	5	.04	.004	6	39	.02	969<.01	<3	.13	.01	.07	11	2889.4	505	
A-38	5	26	35	65	.3	19	12	953	3.64	16	<8	<2	10	35	.2	<3	4	14	.38	.159	37	22	.08	198<.01	<3	.64	.01	.19	3	16.9	645	
SB-1	5	35	43	66	.5	45	17	657	3.51	13	<8	<2	13	21	<.2	<3	22	.49	.051	38	38	.36	134	.02	<3	.88	.01	.28	3	7.5	210	
SB-2	3	22	15	61	<.3	30	14	470	2.82	18	<8	<2	15	8	<.2	<3	3	6	.16	.028	43	14	.11	92<.01	3	.78	.01	.26	<2	3.3	40	
SB-3	4	24	33	62	<.3	28	13	679	2.93	9	<8	<2	12	14	.3	<3	6	.27	.100	35	18	.08	105<.01	3	.63	.01	.24	3	11.8	25		
SB-4	3	7	14	14	<.3	9	4	1049	1.57	<2	<8	<2	6	24	.4	<3	5	2.32	.010	14	22	.04	150	.01	<3	.20	.04	.07	3	665.3	30	
RE SB-4	3	7	13	13	<.3	10	4	1021	1.53	<2	<8	<2	6	24	.2	<3	<3	4	2.26	.010	14	21	.04	147<.01	<3	.20	.04	.07	3	339.6	35	
SB-5	5	5	19	14	<.3	10	3	1265	1.38	<2	<8	<2	5	7	.5	<3	<3	3	1.48	.013	9	26	.03	122<.01	<3	.14	.02	.05	7	25.6	25	
SB-6	5	7	13	13	<.3	9	3	717	1.33	<2	<8	<2	5	6	<.2	<3	2	.82	.013	12	20	.03	68<.01	<3	.24	.01	.11	5	83.1	20		
STANDARD C3/DS2	26	63	34	168	5.9	38	11	778	3.37	59	22	3	20	29	22.2	17	24	.84	.56	.095	17	170	.60	153	.09	22	1.87	.04	.16	16	199.8	860
STANDARD G-2	2	4	4	45	<.3	8	4	546	2.10	<2	8	<2	4	75	<.2	<3	<3	44	.67	.106	8	80	.62	241	.14	<3	1.00	.08	.48	2	-	-

Sample type: ROCK R150 60C. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

14/09/2000

Certificate of Analysis

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Larry Carlyle

WO#00130

Certified by 

Sample #	Au ppb
ADIT	178
AG	1900
T3W	48
T3W-1	141
C1-1	6
C1-2	8
C1-3	6
C1-4	10
C1-5	11
C1-6	22
C1-7	33
C1-8	17
C2-1W	12
C2-1	14
C2-2	11
C2-3	10
C2-4	7
C2-5	10
C2-6	10
C2-7	12
C2-8	9
L6-S1	14
L6-S2	10
L6-S3	11
L6-S4	8
L6-S5	34
L6-S6	15
L6-S7	25
L6-S8	12
L6-S9	9

14/09/2000

Certificate of Analysis

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Larry Carlyle

WO# 00130

Certified by



Sample #	Au ppb
s L6-S10	12
s L6-S11	10
s L7-S1	13
s L7-S2	14
s L7-S3	12
s L7-S4	21
s L7-S5	15
s L7-S6	37
s L7-S7	14
s L7-S8	13
s L7-S9	11
s L7-S10	20
s L7-S11	11
s RL5-1	37
s RL5-2	18
s RL5-3	17
s RL5-4	13
s RL5-5	20
s RL5-6	8
s RL6-1	14
s RL6-2	14
s RL6-3	13
s RL6-4	12
s RL6-5	10
s RL6-6	32
s RW3-1	37
s RW3-2	14
s RW3-3	10
s RW3-4	19
s RW3-5	22

14/09/2000

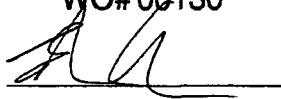
Certificate of Analysis

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Larry Carlyle

WO# 00130

Certified by



Sample #	Au ppb
s RW3-6	26
s RW4-1	32
s RW4-2	19
s RW4-3	20
s RW4-4	17
s RW4-5	18
s RW4-6	15
s RW5-1	39
s RW5-2	22
s RW5-3	19
s RW5-4	73
s RW5-5	14
s RW5-6	50
s RW6-1	32
s RW6-2	20
s RW6-3	57
s RW6-4	13
s RW6-5	17
s RW6-6	24
s RW6-7	67
s RW6-8	38
s V1-1	7
s V1-2	12
s V1-3	8
s V1-4	11
s V1-5	12
s V1-6	12
s V1-7	16
s V1-8	10
s V1-9	12



Northern
Analytical
Laboratories Ltd.

105 Copper Road
Whitehorse, Yukon
Y1A 2Z7
Ph (867) 668-4968
Fax: (867) 668-4890
E-mail: NAL@hypertech.yk.ca

14/09/2000

Certificate of Analysis

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Larry Carlyle

WO# 00130

Certified by

A handwritten signature in black ink, appearing to read "LARRY CARLYLE".

Sample #	Au ppb
s V1-10	16
s V2-1	15
s V2-2	12
s V2-3	10
s V2-4	11
s V2-5	10
s V2-6	13

Certificate# 00I1164

Client Northern Analytical Laboratories

Project. W O 00131

No of Samples 97

Date In Sep 11, 2000

Date Out Sep 27, 2000

Sample Name	SampleType	Hg ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm
C1 - 1	Pulp	10	<0.1	11	9	23	<5	<5	<3	1	<10	<2	0.9	6
C1 - 2	Pulp	5	<0.1	11	5	39	<5	<5	<3	1	<10	<2	1.2	10
C1 - 3	Pulp	50	<0.1	14	5	33	<5	<5	<3	<1	<10	<2	1.1	9
C1 - 4	Pulp	5	<0.1	13	12	34	<5	<5	<3	1	<10	<2	1.2	8
C1 - 5	Pulp	5	<0.1	21	9	34	<5	<5	<3	1	<10	<2	0.7	12
C1 - 6	Pulp	5	<0.1	18	11	36	<5	<5	<3	2	<10	<2	0.8	12
C1 - 7	Pulp	55	<0.1	22	12	33	<5	<5	<3	2	<10	<2	0.9	12
C1 - 8	Pulp	10	<0.1	19	7	36	<5	<5	<3	1	<10	<2	1.1	12
C2 - 1	Pulp	10	<0.1	19	10	36	<5	<5	<3	2	<10	<2	1	12
C2 - 1W	Pulp	10	<0.1	13	6	28	<5	<5	<3	1	<10	<2	1.1	9
C2 - 2	Pulp	5	<0.1	12	9	34	<5	<5	<3	1	<10	<2	1	9
C2 - 3	Pulp	30	<0.1	13	7	32	<5	<5	<3	2	<10	<2	0.7	13
C2 - 4	Pulp	5	<0.1	11	7	30	<5	<5	<3	1	<10	<2	0.8	9
C2 - 5	Pulp	10	<0.1	18	7	25	<5	<5	<3	1	<10	<2	0.8	8
C2 - 6	Pulp	<5	<0.1	11	8	31	<5	<5	<3	1	<10	<2	1.2	8
C2 - 7	Pulp	5	<0.1	12	8	36	<5	<5	<3	2	<10	<2	0.9	10
C2 - 8	Pulp	<5	<0.1	11	6	40	<5	<5	<3	1	<10	<2	0.9	10
L6S - 1	Pulp	75	<0.1	9	12	38	<5	<5	<3	1	<10	<2	0.7	11
L6S - 2	Pulp	<5	<0.1	7	12	37	<5	<5	<3	1	<10	<2	1	9
L6S - 3	Pulp	<5	<0.1	10	8	32	<5	<5	<3	1	<10	<2	0.9	8
L6S - 4	Pulp	15	0.2	25	16	41	<5	<5	<3	3	<10	<2	1	18
L6S - 5	Pulp	15	0.1	13	<2	24	<5	<5	<3	1	<10	<2	0.4	5
L6S - 6	Pulp	25	0.3	31	13	45	<5	<5	<3	1	<10	<2	0.8	11
L6S - 7	Pulp	<5	0.2	16	9	51	<5	<5	<3	2	<10	<2	0.6	11
L6S - 8	Pulp	<5	0.2	4	3	21	<5	<5	<3	1	<10	<2	0.7	5
L6S - 9	Pulp	5	0.1	15	8	37	<5	<5	<3	1	<10	<2	0.7	12
L6S - 10	Pulp	20	<0.1	23	11	60	<5	<5	<3	2	<10	<2	1.3	16
L6S - 11	Pulp	55	0.2	10	8	40	<5	<5	<3	1	<10	<2	0.6	10
L7S - 1	Pulp	100	0.4	35	<2	24	<5	<5	<3	2	<10	<2	0.5	5
L7S - 2	Pulp	90	0.3	34	3	26	<5	<5	<3	1	<10	<2	0.7	6
L7S - 3	Pulp	15	0.1	14	3	26	<5	<5	<3	1	<10	<2	0.9	7
L7S - 4	Pulp	35	0.3	41	10	38	<5	<5	<3	1	<10	<2	1.1	9
L7S - 5	Pulp	25	0.3	60	10	39	<5	<5	<3	1	<10	<2	4	9
L7S - 6	Pulp	<5	<0.1	20	10	49	<5	<5	<3	2	<10	<2	0.9	13

	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Tl %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %	
C1-1	9	118	<5	14	37	123	7	7	1	1	0.03	0.53	0.08	1.4	0.14	0.02	0.01	0.03	
-2	17	153	<5	26	44	289	7	13	1	2	0.04	0.99	0.23	1.97	0.37	0.05	0.01	0.05	
-3	20	122	<5	28	47	176	7	12	2	2	0.05	1.05	0.17	2.05	0.38	0.06	0.02	0.05	
-4	15	142	<5	24	45	188	8	15	1	2	0.06	1	0.24	1.89	0.33	0.06	0.01	0.06	
-5	28	116	<5	33	46	180	9	15	3	2	0.06	1.17	0.26	2.28	0.46	0.08	0.01	0.02	
-6	27	184	<5	33	49	252	9	17	3	2	0.05	1.29	0.27	2.41	0.49	0.07	0.02	0.02	
-7	26	125	<5	28	47	168	8	14	2	2	0.05	1.12	0.22	2.2	0.44	0.05	0.01	0.03	
-8	23	131	<5	26	37	380	7	14	3	2	0.05	1.03	0.28	1.93	0.38	0.07	0.01	0.09	
C2-i	22	194	<5	29	44	486	8	16	2	2	0.05	1.16	0.29	2.16	0.44	0.07	0.01	0.06	
-1w	19	139	<5	27	40	196	7	13	1	2	0.04	1.09	0.24	1.87	0.4	0.04	0.01	0.04	
-2	16	116	<5	22	39	205	6	15	1	2	0.04	0.92	0.21	1.8	0.33	0.05	0.02	0.04	
-3	29	167	<5	31	44	342	7	15	3	2	0.04	1.2	0.29	2.38	0.45	0.09	0.02	0.03	
-4	19	127	<5	24	40	244	7	14	2	2	0.05	1	0.24	1.78	0.33	0.08	0.02	0.02	
-5	16	109	<5	13	26	273	6	13	2	1	0.04	0.76	0.2	1.32	0.28	0.09	0.04	0.04	
-6	20	103	<5	25	45	192	8	14	2	2	0.06	0.97	0.23	1.83	0.35	0.06	0.02	0.03	
-7	20	170	<5	25	50	202	8	14	1	2	0.05	1.17	0.22	2.07	0.39	0.06	0.01	0.03	
-8	17	135	<5	21	38	373	6	13	2	2	0.05	0.96	0.22	1.69	0.31	0.05	0.02	0.05	
L65	-1	21	129	<5	34	57	255	9	13	2	3	0.06	1.57	0.24	2.31	0.46	0.06	0.01	0.03
-2	18	116	<5	25	47	258	7	13	1	2	0.05	1.23	0.21	1.85	0.41	0.04	0.01	0.02	
-3	17	90	<5	18	28	203	11	12	1	1	0.02	0.92	0.18	1.57	0.32	0.05	0.02	0.04	
-4	15	157	<5	25	49	1341	9	28	1	2	0.04	1.14	0.64	2.16	0.32	0.05	0.02	0.06	
-5	9	53	<5	5	17	184	8	22	2	1	0.02	0.48	0.57	0.99	0.16	0.03	0.04	0.06	
-6	23	113	<5	32	41	479	18	26	2	3	0.04	1.48	0.6	2.16	0.52	0.07	0.02	0.06	
-7	27	85	<5	33	43	282	14	17	2	3	0.05	1.29	0.38	2.3	0.64	0.06	0.01	0.03	
-8	7	55	<5	10	30	147	6	10	1	1	0.04	0.59	0.12	1.13	0.16	0.05	0.03	0.03	
-9	20	120	<5	21	45	556	11	20	1	2	0.05	1.1	0.39	2.08	0.37	0.06	0.02	0.04	
-10	51	77	<5	43	48	275	12	17	1	3	0.02	1.66	0.29	3.12	0.97	0.05	0.01	0.08	
-11	25	94	<5	31	48	245	8	12	1	2	0.05	1.4	0.19	2.31	0.54	0.06	0.01	0.04	
L75	-1	15	142	<5	6	13	971	6	71	2	<1	0.01	0.62	2.54	0.74	0.25	0.01	0.11	
-2	20	143	<5	16	21	535	8	56	4	1	0.02	0.87	1.82	1.12	0.4	0.02	0.03	0.11	
-3	15	77	<5	15	27	358	6	22	1	1	0.03	0.89	0.53	1.22	0.31	0.03	0.02	0.05	
-4	24	120	<5	29	40	503	16	30	1	2	0.03	1.35	0.91	1.97	0.46	0.05	0.02	0.08	
-5	26	122	<5	26	40	503	15	30	1	2	0.04	1.28	0.94	2	0.44	0.05	0.02	0.05	
-6	39	52	<5	38	46	248	13	16	3	3	0.06	1.19	0.33	2.62	0.67	0.11	0.01	0.05	

	Hg (ppb)	Hg	Cu	Pb	Zn	As	Sb	Hg (ppm)	M/o	I/I	Bj	Cd	Ce
L7S - 7	Pulp	20	0.2	42	12	79	5	<5	3	<10	<2	18	29
L7S - 8	Pulp	5	0.3	23	13	39	5	<5	1	<10	<2	11	9
L7S - 9	Pulp	10	0.3	19	20	43	5	<5	1	<10	<2	0.9	10
L7S - 10	Pulp	30	0.5	17	10	43	5	<5	1	<10	<2	0.9	10
L7S - 11	Pulp	5	0.2	13	11	38	5	<5	1	<10	<2	1	10
RL5 - 1	Pulp	15	<0.1	72	14	76	5	<5	1	<10	<2	1.1	14
RL5 - 2	Pulp	30	<0.1	59	12	68	5	<5	3	<10	<2	14	16
RL5 - 3	Pulp	15	<0.1	26	8	77	5	<5	2	<10	<2	0.9	16
RL5 - 4	Pulp	15	<0.1	39	10	68	5	<5	3	<10	<2	11	15
RL5 - 5	Pulp	20	0.1	31	8	54	5	<5	2	<10	<2	11	12
RL5 - 6	Pulp	35	0.1	22	8	64	5	<5	3	<10	<2	1.3	15
RL6 - 1	Pulp	20	<0.1	71	10	70	5	<5	3	<10	<2	1.1	17
RL6 - 2	Pulp	35	<0.1	56	9	65	5	<5	3	<10	<2	1	15
RL6 - 3	Pulp	175	0.6	34	3	28	5	<5	1	<10	<2	0.7	13
RL6 - 4	Pulp	20	<0.1	54	6	74	5	<5	2	<10	<2	11	16
RL6 - 5	Pulp	20	<0.1	32	11	60	5	<5	2	<10	<2	1	14
RL6 - 6	Pulp	15	<0.1	49	11	74	5	<5	2	<10	<2	1.3	19
RW3 - 1	Pulp	45	<0.1	67	16	81	39	<3	2	<10	<2	1.3	14
RW3 - 2	Pulp	45	<0.1	53	10	80	35	<3	1	<10	<2	1.3	14
RW3 - 3	Pulp	50	<0.1	24	9	46	<5	<3	1	<10	<2	0.9	10
RW3 - 4	Pulp	35	<0.1	27	14	48	<5	<3	1	<10	<2	0.9	13
RW3 - 5	Pulp	35	<0.1	29	11	51	<5	<3	1	<10	<2	1	14
RW3 - 6	Pulp	<5	<0.1	49	18	72	7	<5	2	<10	<2	1.6	19
RW4 - 1	Pulp	60	<0.1	62	19	74	54	<5	1	<10	<2	1.3	19
RW4 - 2	Pulp	30	<0.1	62	15	74	50	<5	1	<10	<2	1.3	18
RW4 - 3	Pulp	20	<0.1	42	16	78	14	<5	2	<10	<2	1.1	17
RW4 - 4	Pulp	30	<0.1	27	14	51	<5	<5	1	<10	<2	1.1	14
RW4 - 5	Pulp	40	<0.1	27	13	49	<5	<5	1	<10	<2	1	12
RW4 - 6	Pulp	15	<0.1	37	15	62	<5	<5	1	<10	<2	1.1	15
RW5 - 1	Pulp	30	<0.1	36	14	64	25	<5	2	<10	<2	1	16
RW5 - 2	Pulp	55	<0.1	34	11	61	12	<5	2	<10	<2	1	15
RW5 - 3	Pulp	95	<0.1	31	16	60	<5	<5	2	<10	<2	1.2	15
RW5 - 4	Pulp	75	<0.1	51	14	77	13	<5	2	<10	<2	1.2	15
RW5 - 5	Pulp	20	<0.1	18	13	45	<5	<5	2	<10	<2	0.9	10
RW5 - 6	Pulp	35	<0.1	25	13	52	<5	<5	2	<10	<2	0.9	12
RW6 - 1	Pulp	100	0.2	79	17	89	34	<5	2	<10	<2	14	15
RW6 - 2	Pulp	10	<0.1	33	13	62	5	<5	1	<10	<2	0.9	15
RW6 - 3	Pulp	15	<0.1	26	12	51	7	<5	2	<10	<2	1	12
RW6 - 4	Pulp	25	0.2	18	10	42	<5	<5	1	<10	<2	0.9	7
RW6 - 5	Pulp	60	0.3	44	15	72	<5	<5	2	<10	<2	14	13
RW6 - 6	Pulp	25	0.2	56	38	124	5	<5	1	<10	<2	17	22
RW6 - 7	Pulp	20	<0.1	32	20	56	<3	<3	2	<10	<2	1	15
RW6 - 8	Pulp	10	0.1	21	12	39	<3	<3	2	<10	<2	0.7	9
V1 - 1	Pulp	<5	<0.1	12	5	32	<5	<3	2	<10	<2	0.7	9

N	Bq	W	L	V	lh	La	Sr	Cr	~	Co	U%	U%	U%	U%	U%	U%
L75	109	78	<5	78	66	649	19	24	3	7	0.04	2.33	0.63	4.5	1.38	0.08
	21	146	<5	26	43	487	12	23	1	2	0.04	1.21	0.47	1.93	0.41	0.07
	21	66	<5	26	46	400	10	13	2	2	0.05	1.28	0.2	2.19	0.45	0.08
	24	83	<5	32	50	266	10	14	2	2	0.06	1.59	0.18	2.52	0.53	0.06
	22	96	<5	25	44	356	10	11	1	2	0.04	1.22	0.14	2.18	0.44	0.07
	36	149	<5	40	66	363	13	18	1	5	0.05	1.96	0.38	2.94	1.36	0.1
	35	177	<5	40	72	526	15	15	1	5	0.06	1.79	0.25	3.18	1.13	0.09
RL5	56	186	<5	57	57	719	9	15	1	2	0.07	1.3	0.28	2.46	0.78	0.06
	58	116	<5	48	59	399	12	14	1	4	0.07	1.72	0.3	2.78	0.98	0.1
	30	76	<5	35	55	328	6	12	<1	2	0.05	1.22	0.22	2.42	0.77	0.06
	57	100	<5	69	66	336	8	12	1	2	0.09	1.46	0.23	2.82	0.81	0.14
	40	199	<5	34	60	712	14	18	1	5	0.05	1.63	0.37	3.03	1.13	0.13
	38	147	<5	36	63	455	10	18	1	4	0.05	1.8	0.38	2.97	1.19	0.09
	44	236	<5	32	25	1492	11	13	<1	1	0.02	1.08	0.17	1.25	0.2	0.04
RL6	50	187	<5	46	60	561	14	20	1	5	0.07	1.56	0.44	2.75	1.21	0.16
	44	117	<5	43	57	393	10	12	1	2	0.05	1.61	0.23	2.53	0.78	0.08
	65	120	<5	53	62	613	13	15	1	3	0.06	1.73	0.3	2.99	1.2	0.12
	49	190	<5	52	50	531	24	18	2	6	0.03	1.58	0.58	3.31	1.04	0.13
	46	202	<5	42	42	659	20	24	2	4	0.03	1.33	1.26	2.82	0.93	0.14
	26	127	<5	29	43	298	18	15	1	2	0.03	1.32	0.39	2.28	0.58	0.07
	32	66	<5	26	30	432	22	14	1	2	0.02	1.15	0.27	2.42	0.59	0.05
RW3	35	76	<5	29	36	425	21	11	1	1	0.02	1.27	0.16	2.69	0.59	0.06
	47	180	<5	41	41	518	32	16	1	5	0.03	1.58	0.39	3.33	0.85	0.09
	53	188	<5	46	44	777	25	20	2	5	0.03	1.37	0.96	3.26	1.08	0.13
	58	198	<5	55	48	751	24	22	2	5	0.04	1.5	1.83	3.27	1.23	0.14
	49	157	<5	45	42	1016	27	17	1	4	0.04	1.47	0.5	3	0.84	0.12
	47	116	<5	45	39	486	18	13	1	2	0.03	1.25	0.23	2.8	0.7	0.09
	32	96	<5	36	37	384	17	13	1	2	0.03	1.23	0.19	2.74	0.59	0.08
RW4	44	153	<5	43	41	540	26	19	1	4	0.04	1.57	0.49	3.07	0.89	0.1
	47	137	<5	47	45	643	28	18	1	4	0.04	1.51	0.38	3.09	0.9	0.1
	39	115	<5	38	41	555	24	15	1	3	0.03	1.31	0.34	2.93	0.75	0.1
	36	163	<5	40	46	779	20	16	1	3	0.03	1.7	0.32	3.12	0.71	0.08
	48	165	<5	41	43	619	25	20	2	5	0.03	1.51	0.78	3.1	0.96	0.12
	22	92	<5	28	45	412	15	12	1	1	0.03	1.23	0.23	2.38	0.43	0.04
	35	71	<5	36	35	320	19	13	1	2	0.03	1.11	0.2	2.66	0.61	0.06
RW5	57	171	<5	45	50	784	29	19	2	6	0.04	1.61	0.52	3.4	0.98	0.16
	45	126	<5	40	39	518	26	19	2	4	0.04	1.42	0.52	2.75	0.86	0.09
	31	105	<5	32	38	427	17	11	1	1	0.02	1.16	0.19	2.72	0.52	0.07
	16	82	<5	21	39	574	11	9	<1	<1	0.01	1	0.1	1.92	0.32	0.05
	33	257	<5	24	44	1810	26	29	1	1	0.03	1.24	0.94	2.17	0.45	0.06
	68	177	<5	56	61	1308	27	21	1	6	0.05	2.14	0.42	3.77	1.19	0.2
	40	86	<5	29	34	585	29	15	1	3	0.03	1.34	0.26	2.79	0.59	0.09
RW6	22	110	<5	18	26	221	17	12	1	1	0.01	0.88	0.18	2.22	0.36	0.05
	12	174	<5	17	35	364	6	17	1	2	0.05	0.99	0.36	1.6	0.29	0.09

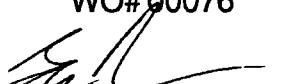
27/07/2000

Certificate of Analysis

Page 1

Larry Carlyle

WO#00076

Certified by 

Sample #	Au ppb
r L-1	<5
r L-2	7
r L-3	25
s L4S-1	9
s L4S-2	13
s L4S-3	11
s L4S-4	18
s L4S-5	16
s L4S-6	13
s L4S-7	16
s L4S-8	10
s L4S-9	24
s L4S-10	<5
s L4S-11	18
s L5S-1	6
s L5S-2	28
s L5S-3	17
s L5S-4	17
s L5S-5	9
s L5S-6	16
s L5S-7	19
s L5S-8	15
s L5S-9	14
s L5S-10	<5
s L5S-11	10
s NL2-1	10
s NL2-2	11
s NL2-3	<5
s NL2-4	9
s NL2-5	8

27/07/2000

Certificate of Analysis

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Larry Carlyle

WO# 00076

Certified by



Sample #	Au ppb
s NL2-6	15
s NL2-7	34
s NL2-8	11
s NL2-9	13
s NL2-10	11
s NL2-11	9
s NL2-12	<5
s NL2-13	30
s NL2-14	11
s NL2-15	<5
s NL2-16	13
s NL2-17	14
s NL2-18	18
s NL2-19	14
s RL1-1	16
s RL1-2	13
s RL1-3	30
s RL1-4	57
s RL1-5	16
s RL1-6	17
s RL2-1	12
s RL2-2	25
s RL2-3	11
s RL2-4	9
s RL2-5	17
s RL2-6	16
s RL3-1	14
s RL3-2	14
s RL3-3	14
s RL3-4	14

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Certificate of Analysis

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Larry Carlyle

WO# 00076
Certified by 

Sample #	Au ppb
s RL3-5	16
s RL3-6	26
s RL4-1	15
s RL4-2	13
s RL4-3	17
s RL4-4	19
s RL4-5	24
s RL4-6	20
s RW1-1	202
s RW1-2	36
s RW1-3	40
s RW1-4	31
s RW1-5	40
s RW1-6	16
s RW2-1	37
s RW2-2	32
s RW2-3	8
s RW2-4	<5
s RW2-5	27
s RW2-6	26



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CERTIFICATE OF ANALYSIS

iPL v0G0818

2036 Columbia St
Vancouver, BC
Canada V5Y 3E1
Phone (604) 879-7878
Fax (604) 879-7898

Client : Northern Analytical Laboratories
Project: WO#00076

80 Samples
80=Pulp

[081814:09:18.00080300]

Out: Aug 03, 2000
In : Jul 25, 2000Page 1 of 3
Section 1 of 1

Sample Name	Hg ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	B1 ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %	
L-1	P < < 30	4 48	< <	< 6	< 2.4	7 32	135 <	158 37	94 7	11 13	3 0.05	0.32 0	12 1.49	0.27 0	0.04 0	0.03 0	0.03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
L-2	P < < 13	4 11	< <	< 1	< 2.4	15 4	535 <	33 28	103 6	56 2	3 0.21	0.55 1	32 2	08 0	05 0	0.02 0	0.04 0	0.27	0	0	0	0	0	0	0	0	0	0	0	0	0	0
L-3	P 5 0.1	47 7	39 <	< 1	< 2.5	12 10	98 <	130 44	607 6	6 1	7 0.02	0.54 0.13	2.47 0	0.32 0	0.07 0	0.04 0	0.06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
L4S- 1	P 190 0.3	72 39	100 <	< 4	< 6.5	34 117	463 <	127 88	912 29	43 6	10 0.10	2.48 1	35 4	61 1	75 0	0.36 0	0.02 0	0.13	0	0	0	0	0	0	0	0	0	0	0	0	0	0
L4S- 2	P < < 50	18 80	< <	< 2	< 5.2	29 103	189 <	104 81	842 22	31 4	8 0.09	2.11 1	03 4	16 1	60 0	0.28 0	0.01 0	0.13	0	0	0	0	0	0	0	0	0	0	0	0	0	
L4S- 3	P 210 0.1	24 7	42 <	< 1	< 2.4	13 45	142 <	50 39	290 12	35 2	3 0.04	1.13 1.23	2 06 0	64 0	06 0	0.03 0	0.08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
L4S- 4	P 250 0.2	40 <	18 5	< <	< 1.4	4 18	100 <	8 20	269 14	37 1	1 0.02	0.66 1.28	1.01 0	15 0	0.05 0	0.03 0	0.10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
L4S- 5	P 35 <	26 12	48 5	< <	< 2.7	13 35	82 <	38 41	344 14	18 1	3 0.05	1.16 0.42	2.32 0.63	0.12 0	0.02 0	0.06	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
L4S- 6	P 465 <	33 9	46 2	< <	< 2.9	11 33	80 <	30 30	315 11	59 3	2 0.03	1.00 2	83 1	92 0	68 0	09 0	0.02 0	0.06	0	0	0	0	0	0	0	0	0	0	0	0	0	
L4S- 7	P 425 <	35 11	49 <	< 1	< 2.3	11 35	90 <	32 32	343 12	64 4	2 0.03	1.07 3	07 2	07 0	73 0	10 0	0.02 0	0.06	0	0	0	0	0	0	0	0	0	0	0	0	0	
L4S- 8	P 380 <	57 23	87 <	< 2	< 5.3	26 74	114 <	73 60	693 25	59 8	5 0.08	1.86 2	02 3	74 1	33 0	17 0	0.02 0	0.11	0	0	0	0	0	0	0	0	0	0	0	0	0	
L4S- 9	P 15 <	56 20	78 <	< 2	< 4.3	21 56	90 <	54 46	612 23	33 7	4 0.04	1.53 1	15 3	35 1	01 0	12 0	0.01 0	0.10	0	0	0	0	0	0	0	0	0	0	0	0	0	
L4S-10	P 165 0.1	72 17	81 <	< 1	< 2.7	18 39	59 <	25 14	1136 35	12 12	2 0.01	1.24 0.42	2.35 0	76 0	09 0	0.01 0	0.09	0	0	0	0	0	0	0	0	0	0	0	0	0		
L4S-11	P 805 <	24 7	41 <	< 1	< 2.2	11 23	38 <	22 25	516 13	28 1	2 0.03	0.85 0	61 1	69 0	43 0	0.07 0	0.03 0	0.07	0	0	0	0	0	0	0	0	0	0	0	0		
L5S- 1	P 735 0.3	59 26	86 5	< <	< 5.3	28 74	132 <	74 60	830 27	57 8	5 0.07	1.98 1	93 3.97	1	32 0.19	0.02 0	0.12	0	0	0	0	0	0	0	0	0	0	0	0	0		
L5S- 2	P 485 0.1	53 14	70 12	< <	< 4.1	19 56	123 <	54 45	609 26	31 4	4 0.04	1.58 0	92 3	19 0	94 0	17 0	0.02 0	0.08	0	0	0	0	0	0	0	0	0	0	0	0	0	
L5S- 3	P 445 <	38 13	65 1	< <	< 3.8	16 41	108 <	44 51	498 20	27 4	4 0.05	1.38 0.79	2.93 0	81 0	12 0	0.01 0	0.09	0	0	0	0	0	0	0	0	0	0	0	0	0		
L5S- 4	P 190 <	43 19	61 6	< <	< 2.8	13 36	141 <	36 45	373 20	25 4	4 0.05	1.28 0.64	2.67 0.70	0	10 0	0.02 0	0.06	0	0	0	0	0	0	0	0	0	0	0	0	0		
L5S- 5	P 865 0.1	43 11	63 3	< <	< 3.6	15 37	146 <	38 47	440 18	30 4	4 0.04	1.42 0	95 2.78	0	79 0	0.09 0	0.02 0	0.07	0	0	0	0	0	0	0	0	0	0	0	0		
L5S- 6	P 2860 0.2	41 <	34 <	< 1	< 1.6	7 22	214 <	31 21	148 7	72 3	1 0.02	0.81 2.72	1.27 0	46 0	0.06 0	0.03 0	0.06	0	0	0	0	0	0	0	0	0	0	0	0	0		
L5S- 7	P 2060 0.2	44 15	63 <	< 3	< 3.5	14 36	115 <	36 46	327 17	44 5	4 0.04	1.37 1	33 2	65 0	82 0	0.09 0	0.02 0	0.07	0	0	0	0	0	0	0	0	0	0	0	0		
L5S- 8	P 3280 0.2	65 22	86 <	< 1	< 4.5	21 62	140 <	61 50	633 22	50 8	5 0.04	1.96 1	46 3	54 1	17 0	16 0	0.02 0	0.07	0	0	0	0	0	0	0	0	0	0	0	0		
L5S- 9	P 245 <	59 20	85 11	< <	< 5.3	25 77	131 <	72 62	713 29	42 10	6 0.08	2.02 1	03 3	95 1	29 0.17	0.02 0	0.10	0	0	0	0	0	0	0	0	0	0	0	0	0		
L5S-10	P < <	51 23	78 5	< <	< 4.9	24 61	117 <	58 51	757 27	77 8	4 0.08	1.68 3.41	3 51 1	16 0.15	0.02 0	0.10	0	0	0	0	0	0	0	0	0	0	0	0	0			
L5S-11	P 1450 0.2	75 15	76 <	< 2	< 4.2	17 46	76 <	39 41	602 34	40 10	4 0.03	1.56 1.09	3.23 0.92	0	10 0.02	0.06	0	0	0	0	0	0	0	0	0	0	0	0	0			
NL2- 1	P 1760 <	19 11	38 <	< 1	< 2.2	13 29	139 <	27 38	483 10	18 2	2 0.05	1.13 0.35	2 07 0	38 0	0.09 0	0.02 0	0.02	0	0	0	0	0	0	0	0	0	0	0	0	0		
NL2- 2	P < 0.2	11 9	33 18	< 1	< 2.7	8 16	151 <	24 48	237 10	13 1	2 0.04	1.18 0	22 1	92 0	34 0	0.05 0	0.01 0	0.03	0	0	0	0	0	0	0	0	0	0	0	0		
NL2- 3	P 2450 0.2	31 11	55 18	< 4	< 3.3	15 45	131 <	47 46	278 14	17 4	3 0.03	1.72 0.30	3 0.03 0	70 0	0.09 0	0.01 0	0.01	0	0	0	0	0	0	0	0	0	0	0	0			
NL2- 4	P 830 <	13 <	35 <	< 1	< 1.9	8 16	172 <	19 30	521 7	12 1	1 0.04	0.85 0	28 1	49 0	27 0	0.07 0	0.02 0	0.04	0	0	0	0	0	0	0	0	0	0	0	0		
NL2- 5	P 1470 <	17 8	38 <	< 3	< 2.8	13 26	247 <	32 44	726 11	18 3	3 0.05	1.40 0.48	2.25 0.41	0	11 0	0.02 0	0.03	0	0	0	0	0	0	0	0	0	0	0	0			
NL2- 6	P 1125 <	14 12	37 <	< 1	< 2.3	11 20	218 <	26 41	785 8	14 2	2 0.04	1.27 0	39 2	01 0	38 0	0.07 0	0.02 0	0.04	0	0	0	0	0	0	0	0	0	0	0	0		
NL2- 7	P 845 <	15 10	43 <	< 1	< 2.5	12 23	175 <	30 45	566 11	13 4	3 0.05	1.54 0	43 2	34 0	43 0	0.07 0	0.02 0	0.02	0	0	0	0	0	0	0	0	0	0	0	0		
NL2- 8	P 755 <	14 12	55 <	< 2	< 3.0	10 19	237 <	29 42	481 10	17 3	3 0.05	1.58 0	52 2	24 0	42 0	13 0	0.02 0	0.03	0	0	0	0	0	0	0	0	0	0	0	0		
NL2- 9	P < <	10 8	35 <	< 2	< 2.5	9 19	160 <	27 39	252 9	12 3	3 0.05	1.32 0	29 1	95 0	37 0	0.08 0	0.02 0	0.01	0	0	0	0	0	0	0	0	0	0	0	0		
NL2-10	P < <	11 7	31 <	< 1	< 2.6	9 15	136 <	24 37	299 9	12 4	3 0.04	1.25 0	48 2.05	0	42 0.09 0	0.02 0	0.01	0	0	0	0	0	0	0	0	0	0	0	0			
NL2-11	P < <	12 11	35 <	< 1	< 2.9	11 18	212 <	27 40	433 10	12 4	3 0.05	1.49 0	35 2	17 0	42 0.09 0	0.02 0	0.01	0	0	0	0	0	0	0	0	0	0	0	0			
NL2-12	P < <	20 10	42 <	< 3	< 3.0	12 24	197 <	30 40	464 14	13 4	4 0.04	1.49 0	53 2.53	0.60 0	14 0	0.02 0	0.02	0	0	0	0	0	0	0	0	0	0	0	0			
NL2-13	P 890 <	24 16	42 6	< 2	< 3.0	12 29	205 <	31 40	402 14	23 4	4 0.03	1.41 1	84 2	43 0	80 0.11 0	0.02 0	0.04	0	0	0	0	0	0	0	0	0	0	0	0			
NL2-14	P 2010 <	28 14	54 <	< 3	< 2.6	10 23	270 <	19 32</																								



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INTERNATIONAL PLASMA LABORATORY LTD.

Client Northern Analytical Laboratories
Project: WO#00076

80 Samples
80=Pulp

F091814-00-18-0008030

2036 Columbia
Vancouver, BC
Canada V5Y 3E1
Phone (604) 879-7878
Fax (604) 879-7898

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Sample Name	Hg ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	B1 ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
NL2-15	P 1415	0.3	28	15	55	<	<	<	6	<	<	3.5	11	26	363	<	20	28	541	9	37	4	3	0.02	1.06	4.58	2.52	1.50	0.13	0.01	0.08
NL2-16	P 830	0.1	16	<	14	<	<	<	1	<	<	1.0	3	4	129	<	3	16	216	3	15	<	<	0.03	0.30	0.42	0.60	0.14	0.05	0.03	0.05
NL2-17	P 545	0.2	14	9	28	<	<	<	2	<	<	2.6	9	17	226	<	25	35	288	8	12	3	2	0.04	1.11	0.39	2.05	0.36	0.15	0.02	0.02
NL2-18	P <	<	23	16	41	<	<	<	1	<	<	2.4	13	28	270	<	28	37	356	12	16	7	4	0.05	1.25	0.78	2.44	0.48	0.15	0.02	0.01
NL2-19	P 2180	<	31	10	55	<	<	<	1	<	<	2.7	15	27	662	<	17	25	695	14	49	4	2	0.03	0.95	3.59	2.18	0.49	0.30	0.01	0.07
RL1-1	P 1020	0.1	30	5	61	<	<	<	<	<	<	2.8	14	71	146	<	57	53	342	9	13	1	2	0.06	1.37	0.28	2.38	0.89	0.06	0.02	0.08
RL1-2	P 200	0.2	54	14	62	<	<	<	2	<	<	3.0	18	52	148	<	43	57	544	10	13	1	3	0.05	1.55	0.30	2.81	0.86	0.10	0.01	0.10
RL1-3	P 10	0.2	67	11	79	<	<	<	1	<	<	4.1	19	45	182	<	47	82	640	9	16	1	7	0.08	1.53	0.38	3.14	1.16	0.15	0.01	0.12
RL1-4	P 70	0.1	48	13	61	<	<	<	2	<	<	2.6	17	72	118	<	43	45	559	8	14	1	3	0.04	1.28	0.37	2.45	0.86	0.09	0.01	0.13
RL1-5	P <	<	28	8	50	<	<	<	2	<	<	2.6	13	47	88	<	55	56	386	7	11	1	2	0.07	1.30	0.22	2.48	0.77	0.09	0.01	0.07
RL1-6	P 130	<	45	15	67	<	<	<	3	<	<	3.4	19	64	156	<	43	48	728	12	14	1	3	0.05	1.54	0.36	2.75	0.78	0.13	0.02	0.12
RL2-1	P 770	0.1	32	6	61	<	<	<	2	<	<	3.0	11	62	169	<	50	49	285	9	15	1	2	0.05	1.28	0.30	2.21	0.81	0.06	0.02	0.08
RL2-2	P 1370	0.6	82	21	94	7	<	<	4	<	<	4.6	13	69	358	<	54	77	437	12	18	1	2	0.02	2.38	0.27	3.36	0.82	0.11	0.02	0.14
RL2-3	P 450	<	22	9	45	<	<	<	3	<	<	2.2	10	29	60	<	40	48	296	7	9	<	1	0.04	1.19	0.13	2.14	0.47	0.06	0.01	0.07
RL2-4	P 295	<	36	9	60	<	<	<	3	<	<	2.7	17	75	124	<	49	44	435	12	15	1	3	0.06	1.29	0.38	2.38	0.78	0.11	0.01	0.11
RL2-5	P 1285	0.1	21	8	50	<	<	<	2	<	<	2.4	10	39	79	<	42	48	238	9	10	<	1	0.04	1.40	0.18	2.21	0.54	0.07	0.01	0.08
RL2-6	P 70	<	29	9	53	<	<	<	2	<	<	2.6	14	52	248	<	47	50	380	14	16	1	3	0.07	1.29	0.32	2.46	0.71	0.09	0.01	0.08
RL3-1	P 380	0.2	60	6	68	<	<	<	2	<	<	3.3	13	39	149	<	43	60	367	8	13	<	3	0.03	1.65	0.22	2.83	1.01	0.09	0.01	0.09
RL3-2	P 300	0.1	54	13	64	<	<	<	1	<	<	3.3	15	36	86	<	42	58	515	6	11	1	3	0.05	1.57	0.22	2.86	1.04	0.08	0.01	0.08
RL3-3	P 205	<	5	<	11	<	<	<	1	<	<	0.6	3	2	17	<	3	20	38	<	7	<	<	0.03	0.23	0.06	0.63	0.06	0.01	0.03	0.03
RL3-4	P 155	0.1	44	<	62	<	<	<	2	<	<	2.8	16	56	92	<	51	55	394	9	14	1	3	0.06	1.48	0.33	2.64	0.99	0.10	0.01	0.10
RL3-5	P 110	0.1	28	9	44	<	<	<	1	<	<	2.1	10	27	124	<	42	54	245	7	11	<	2	0.04	1.15	0.19	2.18	0.69	0.04	0.01	0.07
RL3-6	P 430	<	26	8	48	<	<	<	2	<	<	2.7	10	44	92	<	47	50	255	9	11	1	1	0.03	1.46	0.20	2.31	0.71	0.08	0.01	0.09
RL4-1	P 150	<	58	9	78	<	<	<	2	<	<	3.1	16	59	170	<	41	62	399	12	18	1	5	0.07	1.75	0.45	2.78	1.20	0.13	0.01	0.12
RL4-2	P 90	<	29	11	47	<	<	<	2	<	<	2.9	11	15	66	<	18	82	414	2	8	<	2	0.06	0.84	0.09	2.66	0.51	0.06	0.02	0.04
RL4-3	P 405	0.6	30	4	26	<	<	<	1	<	<	2.0	6	46	158	<	72	34	111	6	12	<	<	<	0.67	0.15	1.49	0.30	0.04	0.02	0.16
RL4-4	P 250	<	37	9	64	<	<	<	3	<	<	3.2	15	68	132	<	49	51	291	12	14	1	3	0.07	1.55	0.32	2.49	0.79	0.13	0.02	0.09
RL4-5	P <	<	45	7	60	<	<	<	2	<	<	3.1	16	51	107	<	42	50	504	11	16	1	3	0.06	1.33	0.37	2.47	0.96	0.12	0.01	0.12
RL4-6	P 45	0.2	26	8	50	<	<	<	2	<	<	2.9	10	49	128	<	47	47	208	8	11	<	2	0.03	1.32	0.23	1.97	0.76	0.06	0.02	0.08
RW1-1	P < 0.3	53	18	74	49	<	<	<	2	<	<	4.0	22	55	196	<	45	40	960	25	27	4	4	0.03	1.27	2.37	3.13	1.16	0.16	0.01	0.12
RW1-2	P < 0.1	35	16	61	21	<	<	<	1	<	<	3.2	16	41	108	<	40	40	576	19	16	2	4	0.03	1.25	0.52	2.84	0.80	0.11	0.01	0.11
RW1-3	P 445	0.1	47	16	69	28	<	<	3	<	<	3.8	17	46	187	<	41	40	794	23	19	2	4	0.03	1.37	0.72	3.04	0.88	0.10	0.01	0.10
RW1-4	P 360	0.2	82	16	92	<	<	<	1	<	<	4.1	21	95	173	<	62	61	862	17	13	1	3	0.04	1.83	0.33	3.14	0.89	0.12	0.01	0.10
RW1-5	P 65	0.1	42	19	65	15	<	<	2	<	<	3.5	16	35	178	<	30	40	787	20	14	1	2	0.01	1.59	0.22	3.15	0.58	0.06	0.01	0.10
RW1-6	P 55	0.1	27	13	48	7	<	<	2	<	<	2.8	14	36	81	<	30	31	449	18	11	1	2	0.02	1.24	0.17	2.61	0.54	0.06	0.01	0.06
RW2-1	P 30	0.2	74	19	83	66	<	<	3	<	<	4.0	22	63	221	<	52	45	1010	23	19	3	5	0.03	1.45	1.01	3.31	1.10	0.16	0.01	0.11
RW2-2	P < 0.2	59	17	77	25	<	<	<	2	<	<	4.1	21	56	192	<	48	43	1033	28	18	3	5	0.03	1.43	0.75	3.39	1.00	0.16	0.01	0.12
RW2-3	P < 0.2	30	10	56	20	<	<	<	1	<	<	3.1	15	39	100	<	41	37	569	18	15	1	3	0.03	1.21	0.44	2.73	0.74	0.11	0.01	0.10
RW2-4	P 980	<	23	2	39	<	<	<	1	<	<	2.1	8	8	59	<	8	59	303	6	19	2	1	0.07	0.40	0.76	1.79	0.18	0.01	0.03	0.10



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Project WO#00076

80 Samples
80=Pulp

[081814 09.18.00080300]

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Sample Name	Hg ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	B1 ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	T1 %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %	
RW2-5	P	<	<	28	12	45	8	<	<	2	<	<	2.2	14	28	85	<	25	31	542	12	9	1	2	0.02	1.21	0.16	2.44	0.49	0.06	0.01	0.07
RW2-6	P	115	<	25	10	40	<	<	<	1	<	<	2.5	13	26	73	<	22	31	478	11	8	1	1	0.02	0.99	0.17	2.20	0.42	0.04	0.01	0.07

14/07/2000

Certificate of Analysis

Page 1

Larry Carlyle

WO#00063

Certified by 

Sample #	Au ppb
r CFM-1	17
ss CFMSS-1	28
ss COTSS	28
s L2S-1	71
s L2S-2	33
s L2S-3	16
s L2S-4	23
s L2S-5	32
s L2S-6	21
s L2S-7	9
s L2S-8	14
s L2S-9	25
s L2S-10	11
s L2S-11	19
s L2S-12	18
s L2S-13	13
s L2S-14	19

) Abortive Mayo Trip



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Project: WO# 00063

17 Samples

077616 50:32:00072400

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In : Jul 18, 2000 Section 1 of 1

Sample Name	Hg ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	B1 ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Tl %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
CFM-1	P < 0.1	4	2	9	< < < <	< 0.5	2	7	21	< 134	4	93	7	3	4	< < 0.13	0.03	0.76	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
CFMSS-1	P < < 20	23	70	< < <	< 3	< 2.6	14	24	151	< 16	20	256	19	31	1	1 0.01	1.05	0.25	2.21	0.34	0.04	0.01	0.04	0.01	0.01	0.04	0.01	0.01	0.04		
COTSS	P < < 23	6	47	< < <	< 1	< 2.7	15	34	152	< 40	40	1171	10	24	1	2 0.05	0.71	0.57	2.19	0.50	0.08	0.02	0.12	0.01	0.01	0.05	0.01	0.01	0.12		
L2S- 1	P < 0.2	61	21	58	< < <	< 3	< 4.7	20	68	113	< 56	63	516	15	21	2	4 0.04	2.33	0.32	3.76	0.86	0.07	0.02	0.04	0.01	0.01	0.04	0.01	0.01	0.04	
L2S- 2	P < < 25	12	44	< < <	< 2	< 3.0	17	39	100	< 7	40	41	345	12	18	3	3 0.06	1.45	0.32	2.74	0.74	0.06	0.02	0.06	0.01	0.01	0.06	0.01	0.01	0.06	
L2S- 3	P < < 21	12	42	< < <	< 2	< 2.7	13	29	124	< 9	33	40	346	10	15	1	2 0.04	1.27	0.24	2.39	0.55	0.05	0.02	0.04	0.01	0.01	0.04	0.01	0.01	0.04	
L2S- 4	P 15 < 21	12	49	< < <	< 2	< 3.3	14	38	145	< 47	47	382	13	18	2	2 0.03	1.73	0.23	2.92	0.69	0.07	0.02	0.04	0.01	0.01	0.03	0.01	0.01	0.04		
L2S- 5	P 10 < 27	19	53	< < <	< 3	< 3.7	16	41	100	< 47	44	519	13	17	4	3 0.04	1.71	0.26	3.06	0.77	0.08	0.02	0.05	0.01	0.01	0.04	0.01	0.01	0.05		
L2S- 6	P < < 8	9	31	< < <	< 1	< 2.2	8	15	154	< 21	40	504	7	13	1	1 0.03	1.07	0.16	1.79	0.32	0.06	0.02	0.03	0.01	0.01	0.03	0.01	0.01	0.03		
L2S- 7	P < < 26	13	52	6	< < <	< 3 4	15	37	146	< 42	52	311	11	15	3	3 0.04	1.77	0.19	2.96	0.66	0.06	0.01	0.04	0.01	0.01	0.04	0.01	0.01	0.04		
L2S- 8	P < < 19	12	45	< < <	< 2	< 2.9	13	30	146	< 36	53	391	10	14	2	3 0.05	1.60	0.17	2.66	0.54	0.07	0.02	0.05	0.01	0.01	0.05	0.01	0.01	0.05		
L2S- 9	P < < 13	16	58	< < <	< 2	< 3.6	12	21	109	< 32	64	488	9	9	1	2 0.05	1.57	0.11	3.01	0.36	0.06	0.02	0.08	0.01	0.01	0.05	0.01	0.01	0.08		
L2S-10	P < < 20	15	53	< < <	< 2	< 8.4	14	36	260	< 43	59	579	12	16	2	3 0.06	1.80	0.20	2.99	0.62	0.07	0.02	0.04	0.01	0.01	0.06	0.01	0.01	0.04		
L2S-11	P < < 28	14	60	< < <	< 3	< 4.4	18	47	228	< 50	62	336	13	17	3	4 0.06	2.53	0.19	3.44	0.74	0.07	0.02	0.04	0.01	0.01	0.06	0.01	0.01	0.04		
L2S-12	P < < 31	17	60	< < <	< 2	< 4.6	20	41	188	< 51	66	376	12	17	3	4 0.06	2.69	0.20	3.49	0.77	0.07	0.02	0.04	0.01	0.01	0.06	0.01	0.01	0.04		
L2S-13	P 20 < 15	< 17	< < <	< 1	< 0.7	4	6	90	< 5	18	223	4	37	2	< 0.03	0.46	1.39	0.78	0.18	0.02	0.04	0.08	0.01	0.01	0.03	0.01	0.01	0.08			
L2S-14	P 20 < 28	7	33	< < <	< 1	< 1.8	6	19	113	< 16	20	231	8	48	2	1 0.02	0.77	2.14	1.32	0.44	0.04	0.03	0.08	0.01	0.01	0.02	0.01	0.01	0.08		

APPENDIX E

INVOICES SUPPORTING

STATEMENT OF COSTS

LIVINGSTONE PLACER LTD.
EQUIPMENT INVOICE

November 7, 2000

TEREX D 800 SERIES (D – 9 Equivalent)

Rate \$190 00/hr (Wet)

8 hrs travel	\$ 1,520 00
20 hrs. of work	<u>\$ 3,800.00</u>
	\$ 5,320 00

TEREX 82 – 30 (D – 8 Equivalent)

Rate \$150.00/hr (Wet)

8 hrs travel (Oct 24/00 & Oct 31/00)	\$ 1,200 00
35 hrs of work (Oct 24 – Oct 31)	<u>\$ 5,250 00</u>
	\$ 6,450 00

JCB 7C BACKHOE (CAT 225 Equivalent)

Rate \$120 00/hr (Wet)

16 hrs travel (Oct. 24 – 25)	\$ 1,920 00
16 hrs travel (Oct. 31 & Nov 1)	\$ 1,920 00
33 hrs of work (Oct 26 – Oct. 31)	<u>\$ 3,960 00</u>
	\$ 7,800 00

**ACME ANALYTICAL LABORATORIES LTD.**

852 East Hastings,, Vancouver, B.C., CANADA V6A 1R6

Phone: (604) 253-3158 Fax: (604) 253-1716

Our GST # 100035377 RT



CARLYLE, LARRY W.
74 Tamarack Drive
Whitehorse, YT
Y1A 4Y6

Inv.#: A004664
Date: Dec 8 2000

QTY	ASSAY	PRICE	AMOUNT
44	30 ELEMENT ICP + AU (10 gm) + HG(10 ppb) ANALYSIS @	14.25	627.00
44	ROCK SAMPLE PREPARATION @	4.50	198.00
			825.00
	GST Taxable 7.00% GST		825.00
			57.75
	RECEIVED CHEQUE #28 - THANK YOU.		882.75
		CAD \$	-882.75
			0.00

Samples submitted by Larry W. Carlyle

COPIES 1

TERMS: Net two weeks. 1.5 % per month charged on overdue accounts.

[COPY 2]



Northern
Analytical
Laboratories Ltd.

105 Copper Road
Whitehorse, Yukon
Y1A 2Z7
Ph: (867) 668-4968
Fax: (867) 668-4890
E-mail NAL@hypertech.yk.ca

Invoice for Analytical Services

To:

Larry Canvie

Invoice Date: 14/09/2000

WO# 00130

QTY	DESCRIPTION	UNIT PRICE	AMOUNT
4	Sample Preparation:		
93	Rock/D.C. Sample Preparation	5.50	22.00
	Soil/Sediment Sample Preparation	2.00	186.00
97	Analyses:		
97	Au + 30	17.50	1697.50
97	Hg Cold Vapour Analysis	6.00	582.00
<i>Previous WO#130 Invoice in error.</i>			
	Subtotal		2487.50
	GST @ 7% (R 121285662)		174.13
	Assay Coupons		(\$58.00)
	Total due on receipt of invoice		\$2,603.63

2% per month charged on overdue accounts



**Northern
Analytical
Laboratories Ltd.**

105 Copper Road
Whitehorse, Yukon
Y1A 2Z7
Ph (867) 668-4968
Fax (867) 668-4890
E-mail NAL@hypertech.yk.ca

Invoice for Analytical Services

To:

Larry Carlyle

Invoice Date: 08/09/2000

WO# 00130

Paid CHQS 02/022.



Northern
Analytical
Laboratories Ltd.

105 Copper Road
Whitehorse, Yukon
Y1A 2Z7
Ph: (867) 668-4968
Fax: (867) 668-4890
E-mail: NAL@hypertech.yk.ca

Invoice for Analytical Services

To:

Larry Carlyle

Invoice Date: 27/07/2000

WO# 00076

QTY	DESCRIPTION	UNIT PRICE	AMOUNT
3	Sample Preparation:		
77	Rock/D.C. Sample Preparation	5.50	16.50
	Soil/Sediment Sample Preparation	2.00	154.00
	Analyses:		
80	Au + 30	17.50	1400.00
80	Hg Cold Vapour AA	6.00	480.00
	<i>Paid 131 CHQ 20.</i> <i>28/7/00</i> <i>W.M.</i>		
	Subtotal		2050.50
	GST @ 7% (R 121285662)		143.54
	Total due on receipt of invoice		\$2,194.04
	2% per month charged on overdue accounts		



105 Copper Road
Whitehorse, Yukon
Y1A 2Z7
Ph (867) 668-4968
Fax (867) 668-4890
E-mail NAL@hypertech.yk.ca

Invoice for Analytical Services

To:

Larry Carlyle

Invoice Date: 14/07/2000

WO# 00063

QTY	DESCRIPTION	UNIT PRICE	AMOUNT
1	Sample Preparation:		
16	Rock/D.C. Sample Preparation	5.50	5.50
	Soil/Sediment Sample Preparation	2.00	32.00
17	Analyses:		
17	Au + 30	17.50	297.50
17	Hg Cold Vapor AA	6.00	102.00
	Subtotal		437.00
	GST @7% (R 121285662)		30.59
	Total due on receipt of invoice		\$467.59

2% per month charged on overdue accounts

Paid Cheque #20

EDMONTON

 * BYERS

PH. (403) 440-1101

 * TRUCK-ALL PH. (403) 452-0837

* AFTER JANUARY 25, 1999, AREA CODE FOR BYERS AND TRUCK-ALL WILL BE 780

CALGARY

 PH (403) 279-7531 VANCOUVER

PH (604) 525-4666

 PRINCE GEORGE

PH (250) 563-8566



1808376

STRAIGHT BILL OF LADING - NOT NEGOTIABLE

DATE

Nov. 6/00

SHIPPER'S NUMBER		BILL OF LADING NUMBER			PURCHASE ORDER NUMBER	
SHIPPER ACCOUNT NUMBER		CONSIGNEE ACCOUNT NUMBER				
SHIPPER (FROM) STREET <i>Carlisle Geological Services</i>		CONSIGNEE (TO) STREET <i>Acme Labs</i> <i>1852 E. Hastings St.</i>				
CITY/PROVINCE <i>Whitehorse YT.</i>	ROUTING	POSTAL CODE	CITY/PROVINCE <i>Vancouver BC</i>	POSTAL CODE	POSTAL CODE	
SPECIAL INSTRUCTIONS <i>Phone 604-253-3158</i>						
RATE QUOTE NUMBER ➔ 92311032						
PIECES		DESCRIPTION OF ARTICLES AND SPECIAL MARKS		DANGEROUS GOODS	WEIGHT(LBS)	RATE
5 Rock Samples		CLASS	PJN	PKG GRP	250 #	
					80.00	
					ESG 4.76	
					GST 5.93	
					90.69	
EMERGENCY RESPONSE TELEPHONE NO		TYPE OF PLACARD	QUANTITY	EMERGENCY RESPONSE PLAN NO	SHIPPER'S 24 HOUR EMERGENCY PHONE NO	
DIMENSIONS		TOTAL CUBIC FEET		DECLARED VALUE. Maximum liability of carrier is \$2.00 per lb (\$4.41 per kilogram) unless declared valuation states otherwise. Valuation declared in excess of \$2.00 per lb will result in excess valuation charge as published in BTS-1 tariff \$		

NOTICE OF CLAIM (a) No carrier is liable for loss, damage or delay to any goods under the Bill of Lading unless notice thereof setting out particulars of the origin, destination and date of shipment of the goods and the estimated amount claimed in respect of such loss, damage or delay is given in writing to the originating carrier or the delivering carrier within sixty (60) days after the delivery of the goods; or in the case of failure to make delivery, within nine (9) months from the date of shipment. (b) The final statement of the claim must be filed within nine (9) months from the date of shipment together with a copy of the paid freight bill.

RECEIVED at the point of origin on the date specified from the consignor mentioned herein the property herein described in apparent good order except as noted (contents and conditions of contents of package unknown) marked consigned and destined as indicated below which the carrier agrees to carry and to deliver to the consignee at the said destination if on its own authorized route or otherwise to cause to be carried by another carrier on the route to said destination subject to the rates and classification in effect on the date of shipment.

It is mutually agreed as to each carrier of all or any of the goods over all or any portion of the route to destination and as to each party of any time interested in all or any of the goods that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, including conditions set aside by the standard bill of lading in power at the date of issuing, which are hereby agreed by the consignor and accepted for himself and his assigns.

The contract for the carriage of the goods listed in the bill of lading is governed by regulation in force in the jurisdiction at the time and place of shipment and is subject to the conditions set out in such regulations.



79048896

CUSTOMER COPY
BTS

SHIPPER <i>Larry W. Carlile</i>	PER <i>Bogilte Ave</i>	DATE <i>Nov 6/00</i>
BYERS TRANSPORTATION SYSTEM INC.	CARRIER BTS	TIME <i>3:50 PM</i>

NUMBER OF PIECES RECEIVED ▲

SHIPPER COPY



graphics ltd.
YUKON'S COMPLETE QUALITY PRINTING CENTRE

411D Strickland Street
Whitehorse, Yukon
Y1A 2K3
Phone (867) 667-4639
Fax (867) 668-2734
E-Mail integrgraphics@yknet.yk.ca

INVOICE: 54173

DATE IN Dept 18/0

DATE REQ'D _____

RUSH

JOB OR PROJ. _____

CONTACT: _____ PHONE: 633-3910 PO. NO. _____

DIAZO

DRAWING TITLE OR JOB NO.	NO. OF ORIG'S	NO. OF COPIES	DESCRIPTION	SIZE	SQ FT/ TOTALS	UNIT PRICE	TOTAL PRICE
			BLACK / BLUE LINE				
			BLACK / BLUE LINE				
			DILAR BLK SEPIA				
			STAPLE / TAPE				
			FOLDED				

2520

	1	6	(BOND / VELLUM / FILM	30x60	75	.28	21.00
			BOND / VELLUM / FILM				

PHOTOCOPY

			SS DS				
			SS DS				
			SS DS				
			CERLOXBOUND/COIL				
			COVERS Card Acetate				

LASER

SUPPLIES / OTHER

On V.Sa

G S T REG NO 102500287 RT

TERMS Net 30 Days from Date of Invoice 2% Per Month
Charged on Overdue Accounts

SUB TOTAL	21.00
G S T	1.47
TOTAL	22.47

Docket No

SUMMIT AIR
 Charters Ltd. & Flight Training Centre
 Box 5299
 WHITEHORSE, YUKON Y1A 4Z2
 (867) 667-7327 Fax (867) 667-4510

CUSTOMER ORDER NO	TELEPHONE	DATE					
NAME <u>Larry Carlyle</u>							
ADDRESS							
CASH	CHARGE	CHEQUE	DEBIT CARD	COD	ON ACCT	MDSE RETD	PAID OUT
VISA					ROA.		
Flight to JC-172				178			
Livingstone				175 48			
Aug 23/00							
SPECIAL INSTRUCTIONS							
GST #R120801972							
All claims and returned goods MUST be accompanied by this bill							
SOLD BY	RECEIVED BY	SUBTOTAL	GST	PST	TOTAL		

3446 THANK YOU

139.09

Boots

Rock Hammer

INTERGRAPHIC
 4110 SF 10 LANE
 Whitehorse

CARD NUMBER 45154094244411
 EXPIRY DATE 11/05
 CARD TYPE VISA
 DATE/TIME 00/08/04
 0 591112

PURCHASE

147.00

APPROVED - THANK U

1 02044

SIGNATURE Larry Carlyle

DIG SALMON AIR

668-4608
P.O. Box 6001
Whitehorse, Yukon Y1A 5L7

CHARTER TICKET

No 2648

AC CESSNA 206 JSR DATE Sept 12, 2000
NAME LARRY CARLYE

ADDRESS

From	Miles	Hours	Cargo	Passenger-Remarks
To				
LIV				
FY				
				P - friend Charger.
Special Instructions			at Per Hour	260 C-
			at Per Mile	
Waiting Time	at	Per Hour		
Fuel	gals @	Per Gallon		
GST # R126985522				14 00
TOTAL CHARGES				214 00

Pilot's Signature

Base

Charterer's Authorization

Willow Printers

BIG SALMON AIR

668-4608
P.O. Box 6001
Whitehorse, Yukon Y1A 5L7

ACCESSNA 185 ZNL DATE Aug 23, 2000
NAME LIVINGSTON PLACE

ADDRESS

From	Miles	Hours	Cargo	Passenger-Remarks
To				
L/L				
XY				
Special Instructions		at	Per Hour	
		at	Per Mile	200
	Waiting Time	at	Per Hour	a
	Fuel	gals @	Per Gallon	
	GST # R126985522			14.00
	TOTAL CHARGES			214.00

David Young
Pilot's Signature

Base

Charterer's Authorization

CHARTER TICKET

Nic 2699

BIG SALMON AIR

668-4608
P.O. Box 6001
Whitehorse, Yukon Y1A 5L7

CHARTER TICKET

No 2712

ACCESSNA 185 ZNL DATE Aug 23, 2000
NAME Livingston PLACE

ADDRESS _____

From	Miles	Hours	Cargo	Passenger-Remarks
From XY				Larry.
To LIV				
XY				
Special Instructions		at	Per Hour	
<i>split Charter</i>		at	Per Mile	15.00
Waiting Time	at	Per Hour		
Fuel	gals @	Per Gallon		
GST # R126985522				88.00
TOTAL CHARGES			123	123.00

Pilot's Signature

Base

Charterer's Authorization

BIG SALMON AIR

668-4608
P.O. Box 6001
Whitehorse, Yukon Y1A 5L7

AC Cessna 206 G JSR DATE 18 July 2000
NAME Spt. Mitch
ADDRESS Livingstone Plaza

From	TXY	Miles	Hours	Cargo	Passenger-Remarks
To	Livingstone	50			
	YXY	50			
					P and -
Special Instructions		at Per Hour			
		500	at 2 $\frac{3}{4}$ Per Mile	235	00
Waiting Time		at	Per Hour		
Fuel		gals @	Per Gallon		
GST # R126985522			80S	100	
TOTAL CHARGES			1230S	1230S 42	

Akije Crowley
Pilot's Signature

Whitehorse
Base

Mark Fussell
Charterer's Authorization

CHARTER TICKET

Nº 2677

BIG SALMON AIR

668-4608
P.O. Box 6001
Whitehorse, Yukon Y1A 5L7

AC CESSNA 185 ZNL

NAME WINGSTONE PLADER

ADDRESS WHITEHORN

From	X Y	Miles	Hours	Cargo	Passenger-Remarks
To	A U				
	X Y				
Special Instructions				at Per Hour	
				at Per Mile	260 C
Waiting Time		at	Per Hour		1
Fuel		gals @	Per Gallon		
GST # R126985522					314 0
TOTAL CHARGES					1214 0

Pilot's Signature

Rasor

Charterer's Authorization

