



52L16NE0020 18 KILLALA

010

DIAMOND DRILLING

TOWNSHIP: KILLALA

REPORT NO: 18

WORK PERFORMED FOR: Black Cliff Mines Ltd.

RECORDED HOLDER: Same as Above (xx)  
: Other ( )

<u>Claim No.</u>	<u>Hole No.</u>	<u>Footage</u>	<u>Date</u>	<u>Note</u>
903709	LL-89-1	136.24m	Feb/89	(1)
	LL-89-2	136.85m	Feb/89	(1)
	LL-89-3	167.3m	Feb-Mar/89	(1)
903711 &				
903712	LL-89-4	154.53m	Mar/89	(1)
903714	LL-89-5	102.7m	Mar/89	(1)
	LL-89-6	175.9m	Mar/89	(1)
903718	LL-89-7	157.6m	Mar/89	(1)
	LL-89-8	99.7m	Mar/89	(1)
	LL-89-9	154.4m	Mar/89	(1)
	LL-89-10	175.9m	Mar/89	(1)
903705 &				
903706	LL-89-11	148.4m	Mar/89	(1)
976964	LL-89-12	142.3m	Mar/89	(1)
	LL-89-13	197.2m	Mar/89	(1)
903703	LL-89-14	194.1m	Mar/89	(1)
	LL-89-15	136.2m	Mar/89	(1)
903718	LL-89-16	246.0m	Apr/89	(1)
	LL-89-18	264.2m	Apr/89	(1)
903706	LL-89-19	178.9m	Apr/89	(1)
	LL-89-20	123.1m	Apr/89	(1)

NOTES: (1) W8902-102, date filed Sept/89

**REPORT ON THE 1989 DIAMOND DRILL PROGRAM**

**LAIRD LAKE PROPERTY**

**RED LAKE MINING DIVISION, ONTARIO**

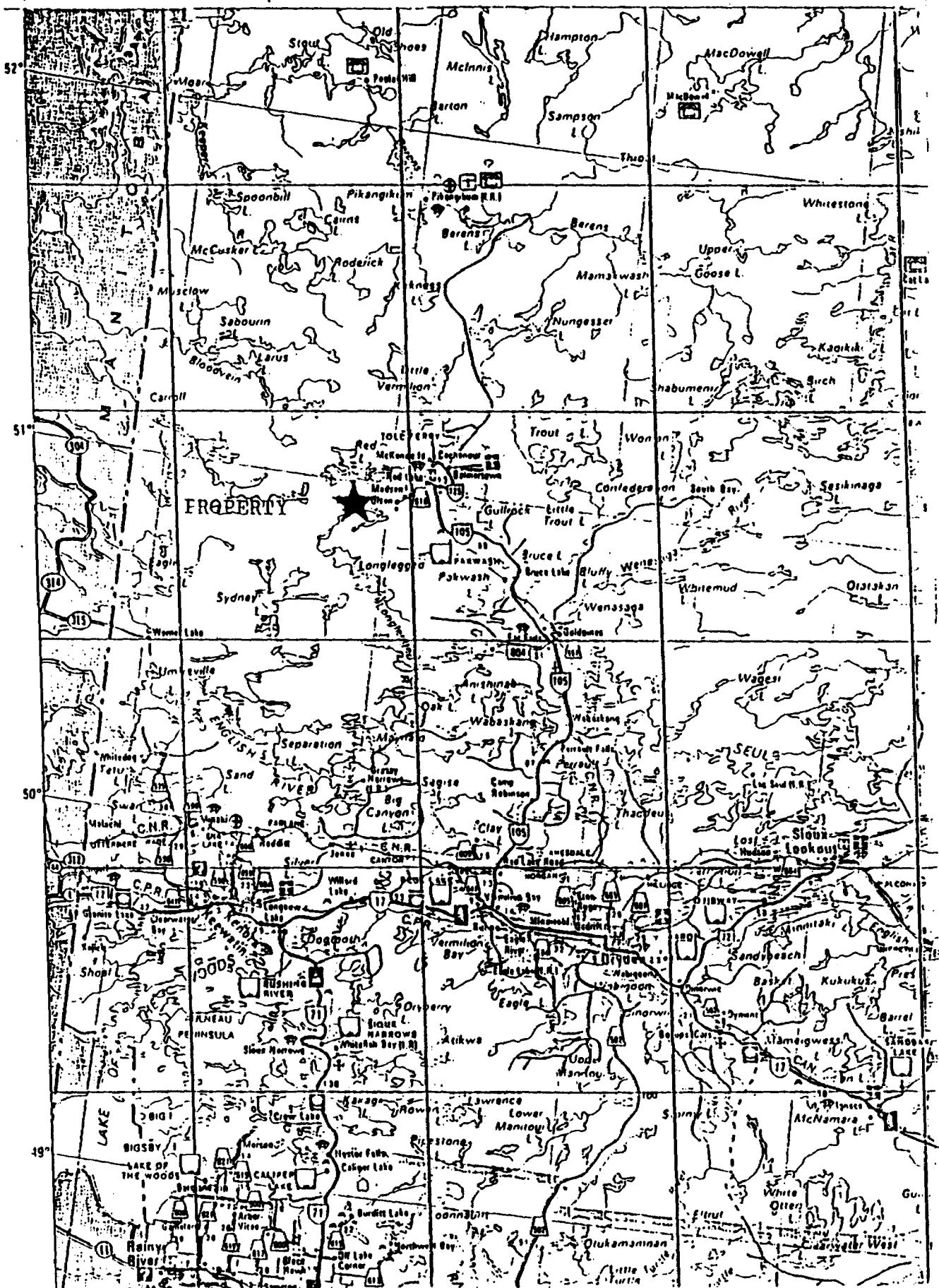
**NTS 52 L/16**

**FOR**

**CYPRUS GOLD (CANADA) LIMITED**

Toronto, Ontario  
May 1989

Murray C. Rogers, M.Sc.  
Orex International



General location map, property as indicated (1:800,000).

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## SUMMARY

The Laird Lake gold property consists of a contiguous block of 80 unpatented claims in Killala Township, which lies about 25 km (16 miles) southwest of the town of Red Lake in northwest Ontario.

The property was recently optioned by Cyprus Gold (Canada) Ltd. from Black Cliff Mines Limited of Toronto.

Cyprus Gold carried out a diamond drill program on the property from February 22 to April 11, 1989. N. Morissette Drilling Inc. was contracted to do the drilling. Technical support was provided by personnel of Orex International Consulting, which included the author and geologist V. Kovac. A total of 19 holes were drilled for a total of 3091.6 meters (10,144 feet). Targets included known gold occurrences and I.P./resistivity anomalies.

The drill program adequately examined and explained the proposed targets with the exception of one geophysical anomaly which was inaccessible to the drill.

Mafic to ultramafic volcanic flows and granodiorite intrusions are the dominant lithologies on the claim group. A large deformation zone of up to 500 meters in width trends generally east-west through the property and probably represents an extension of the Howey Bay - Flat Lake Deformation Zone, which hosts the Madsen and Starrett-Olsen gold mines to the east. The deformation takes the form of the mylonitization and shearing of the rocks.

Silica and biotite alteration and pyrite-pyrrhotite enrichment is commonly developed in the deformed lithologies. Variable talc, carbonate and chlorite alteration can also be found in the mafic-ultramafic volcanic sequences.

Gold mineralization has been found in a number of localities in the southern and eastern portions of the claim block. The gold is generally associated with grey quartz veins, veinlets and stringers in altered and deformed mafic-ultramafic volcanics, exhalites and granodiorite, commonly with sulfide enrichment.

A number of generally east-west trending, low grade, inconsistent, gold-bearing zones were revealed by holes 7, 8, 9, 10, 16 and 18 in the area of lines 37+00W to 40+00W. An intersection of 0.205 oz gold per ton across 1.5 meters (4.9 feet) was encountered in hole LL-89-9. This area has been adequately examined and no further work appears to be warranted. This does not rule out the possibility of better mineralization along strike to the west.

An intersection of 0.245 oz gold per ton across 1.3 meters (4.25 feet) was encountered in hole LL-89-11, hosted by a pyritic, silicified granodiorite mylonite unit with narrow quartz veinlets and stringers in a much wider section of pyritic (up to 15%) mylonite. Holes 19 and 20 were drilled respectively 100 meters to the east and west along strike. Both holes intersected the pyritic

zone but there were no associated gold values. There are indications that the pyritic zone could continue for a significant distance to the east.

A limited program of bulldozer trenching is recommended to expose the pyritic zone at 15 meter (50 foot) intervals along the trend in the L13+00W to L15+00W area and along strike to the west and east if warranted. The trenches would then be washed and the pyritic zones channel sampled.

An interpretation of the ground magnetometer surveys indicate that the favorable lithologic units and probably the deformation zone extend into the 12 new claims to the southwest. It is recommended that these claims be geologically mapped, prospected and sampled. An I.P./resistivity survey would also be warranted.

Favorable mafic-ultramafic volcanic units are interpreted to almost totally underlie Laird Lake. An I.P./resistivity survey on the lake ice during the winter would provide further information to evaluate this area.

No further drilling is recommended until the results of the preliminary work can be evaluated.

A summer program of mapping, prospecting, trenching and rock sampling has a suggested budget of \$60,500.

A winter program of an I.P./resistivity survey of 30 line miles has a suggested budget of \$63,000.

## INTRODUCTION

Cyprus Gold (Canada) Ltd. of Vancouver, B.C., carried out a diamond drill program on the Laird Lake property near Red Lake, Ontario, from mid-February to mid-April 1989.

This report briefly summarizes the background information on the property and the Red Lake area and reports on the results of the diamond drill program. Recommendations are also made for further work on the property.

## PROPERTY LOCATION AND ACCESS

The property is located within Killala Township about 25 km (16 miles) southwest of the town of Red Lake in northwest Ontario. Access to the claim group is via Highway 618 and the Flat Lake - Suffel Lake gravel road (Figure 1). The gravel road connects to Highway 618 about 2 km south of the town of Madsen. A recent logging road extends south from the Flat Lake road about 13 km from the highway. The logging road proceeds through the eastern part of the claim block. Drill roads bulldozed for this program extend from the logging road to the eastern shore of Laird Lake and along the southern part of the property.

Aircraft charters, supplies and services are available in Red Lake, a mining town of about 2,000 inhabitants.

## PROPERTY LAND STATUS

The Laird Lake property consists of 80 contiguous unpatented mining claims comprising 3200 acres in Killala Township, District of Kenora, Red Lake Mining Division (Figure 2). The property specifics are outlined below:

<u>Claim No.</u>	<u>Acres</u>	<u>Recording Date</u>	<u>Due Date</u>
KRL 903703-720 incl.	40 each	Aug 18/86	Aug 18/89
KRL 976955-999 incl.	40 each	July 6/87	July 6/90
KRL 977000-004 incl.	40 each	July 6/87	July 6/90
KRL 1057167-178 inc.	40 each	Feb 4/89	Feb 4/90

## PREVIOUS WORK

The Laird Lake property has been intermittently explored for gold since 1936. The early work is well summarized in N. Willoughby's 1988 company report for Black Cliff Mines and outlined again in A. Farkas' 1988 company report for Black Cliff Mines. The early exploration from 1936 to 1964 comprised trenching, sampling and about 13,000 feet of shallow diamond drilling.

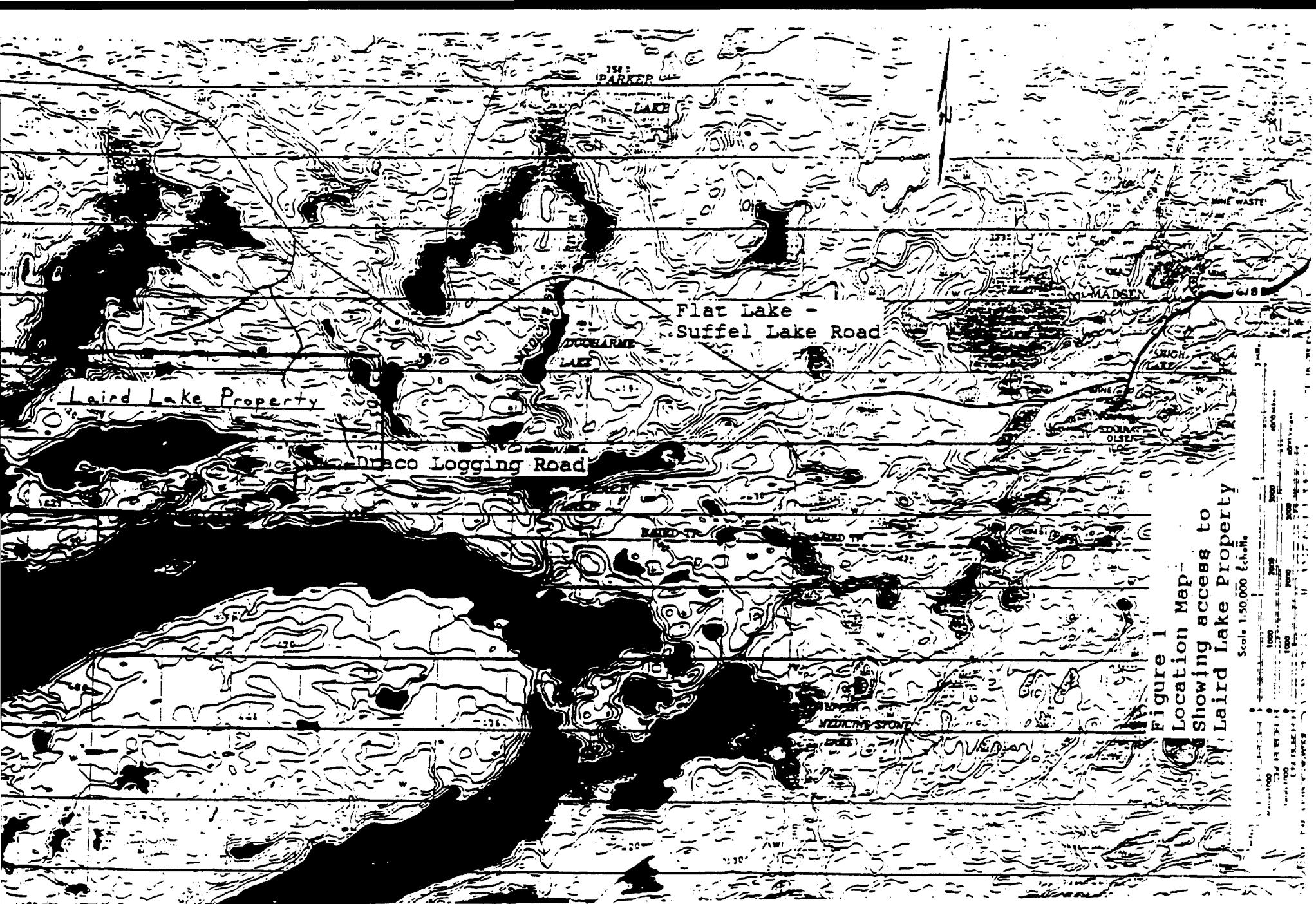
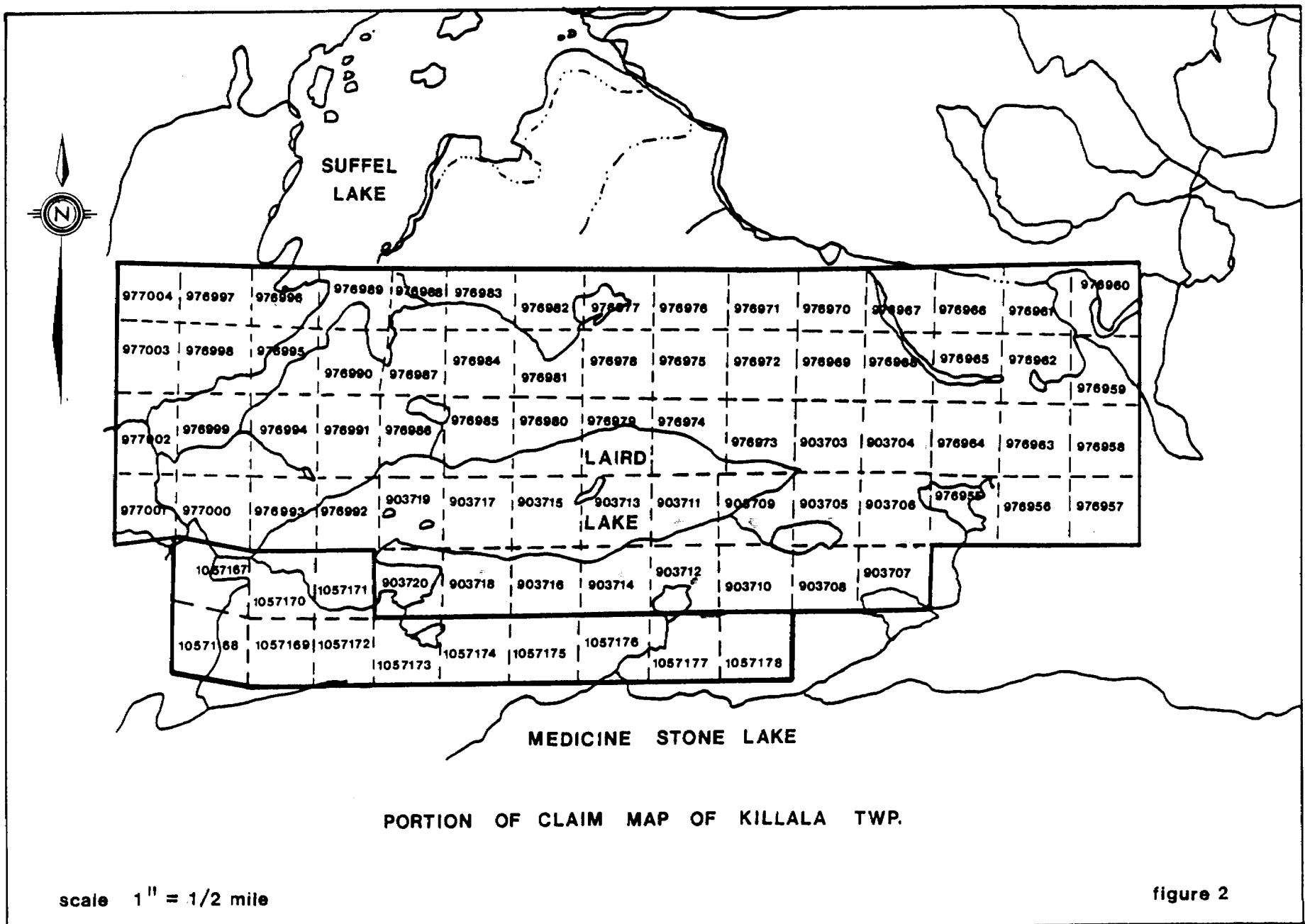


Figure 1  
Location Map  
Showing access to  
Laird Lake Property

Scale 1:50,000 (inch)



In 1987-88 Black Cliff Mines undertook an extensive program of grid line cutting, geological mapping and sampling and VLF-E.M., magnetometer and selective I.P./resistivity surveys.

The geological mapping outlined a prominent, east-west trending deformation zone, some 500 meters wide, which crosses the central part of the property and is probably an extension of the Flat Lake - Howey Bay Deformation Zone which hosts the past producing Madsen and Starrett-Olsen gold mines.

The sampling of old trenches revealed several gold-bearing zones along the southern portion of the claim group.

A number of linear, generally east-west trending I.P./resistivity anomalies were outlined by the survey. Some of the anomalies coincided with known mineralized zones whereas others were unexplained.

#### REGIONAL GEOLOGY AND GOLD MINERALIZATION

The Red Lake greenstone belt occurs in the Uchi Subprovince which is part of the Superior Province of Archean age. Both tholeiite-komatiite and calc-alkaline volcanic rocks are present in the district. Narrow exhalite units of ferruginous sedimentary rocks and cherts are interlayered with the mafic and felsic volcanic rocks. Sedimentary rocks overlie the mafic volcanics. Late ultramafic to felsic intrusions are intrusive into the volcanic rocks. With minor exceptions, the gold deposits of the Red Lake District are hosted by rocks associated with the tholeiite-komatiite volcanic sequence.

Several major NW to NE trending zones of ductile deformation have been recognized in the Red Lake area. The present and past producing gold mines are located within these deformation zones.

Production to date for the Red Lake camp totals about 16 million ounces of gold mainly from the presently producing Campbell and Dickenson and past producing Madsen mines.

Mineralization at the Campbell and Dickenson mines takes the form of auriferous, sulfide-bearing quartz-carbonate veins hosted by mafic to ultramafic volcanic rocks.

The past producing Madsen (2,416,000 oz. gold produced) and Starrett Olsen (163,900 oz. gold) mines are located about 8 miles east and on-strike with the Laird Lake property. The mineralization occurred as auriferous quartz veins concentrated within fracture zones of biotite altered, mylonitized mafic and ultramafic volcanics.

Other mineralization styles in the Red Lake district include auriferous quartz veins hosted by iron formation (i.e. McFinley deposits), sulfide-rich quartz lenses, veins and stringers in a porphyry dyke (i.e. Hasaga mine) and siliceous shears within granitic stocks (i.e. McKenzie mine).

#### PROPERTY GEOLOGY

The geology of the Laird Lake property consists mainly of basalt with minor ultramafic flows of tholeiitic and komatiitic affiliation and a variety of granodiorites associated with the Killala Batholith and Medicine Stone Lake Intrusion, which occur respectively along the northern and southern portions of the claim group. Ferruginous sedimentary and chert exhalite horizons exist within the volcanic sequence. Small intrusions ranging from ultrmafic to felsic in composition occur as late dykes and stocks.

A prominent, east-west trending deformation zone of up to 500 meters in width trends through the center of the property. It is probably an extension of the Flat Lake - Howey Bay Deformation Zone which hosts the past producing Madsen and Starret Olsen mines. The deformation is evident as mylonite development in both the volcanic and granodiorite rock units. Variable silica and biotite alteration with local pyrite enrichment are commonly developed within the mylonite units. Foliation is generally developed east-west with sub-vertical to vertical dips.

Gold mineralization has been found on the property associated with quartz veins, veinlets and stringers in the following situations:

- (a) with sheared, biotite altered mafic volcanics.
- (b) sheared or fractured pyritic mafic volcanics.
- (c) sheared and silicified mafic volcanics.
- (d) fractured, pyritic exhalative volcanics.
- (e) recrystallized exhalites or silicate iron formation with late hydrothermal pyrite and pyrrhotite.
- (f) interflow sediments or tuffs with disseminated pyrite and minor exhalative carbonate.
- (g) pyritized felsic mylonites with or without sericite and arsenopyrite.

A summary of the rock units is represented in Table 1. One is referred to the 1988 report by A. Farkas for a thorough description of the property geology and rock types. A general representation of the major rock units is outlined on the compilation map (pocket).

Table 1 - Summary of Rock Units

- 6      Felsic mylonites; few or no relict textures; probably derived from granodiorite and quartz porphyry.
- 5      5a    Quartz porphyry  
5b    Quartz-feldspar porphyry  
5c    Aplite dyke  
M      Denotes protomylonite to mylonite.
- 4      4a    Biotitic granodiorite  
4b    Leucogranodiorite  
4c    Granodiorite-mafic volcanic hybrid; variable composition; formed from the pervasive granodiorite contamination of the volcanic.  
M      Denotes protomylonite to mylonite.
- 3      3a    Ultramafic flow  
3b    Hornblendite  
M      Denotes protomylonite to mylonite.
- 2      2a    Gabbro  
2b    Gabbro or diorite, feldspar porphyritic  
2c    Diorite dykes  
2d    Pyroxene porphyry  
M      Denotes protomylonite to mylonite.
- 1      1a    Basalt flow  
1b    Mafic volcanic agglomerate or lapilli tuff  
1c    Mafic volcanic tuff  
1d    Hornfelsed mafic volcanic rock  
1e    Exhalites or interflow sedimentary rocks; chert, silicate iron formation and minor carbonate  
M      Denotes protomylonite to mylonite.

\* The rock units are not listed according to age relationships.

Table 2 - Summary of the Diamond Drill Program

<u>Drill Hole No.</u>	<u>Claim No.</u>	<u>Location</u>	<u>Azimuth</u>	<u>Dip</u>	<u>Length (meters)</u>	<u>Drilling Dates</u>	<u>Target</u>	<u>Results*</u> (oz.Au/ton/m/)
LL-89-1	903709	21+40 W; 7+75 S	160	-50	136.2	Feb. 22-25	Grab sample assays up to 1761 ppb Au.	0.011/1.1
LL-89-2	903709	22+70 W; 7+70 S	330	-50	136.9	Feb. 25-27	I.P. anomaly; resistivity low; assays up to 1694 ppb Au.	0.011/1.5
LL-89-3	903711	L24+00W; 8+05 S	340	-45	167.3	Feb. 28-Mar. 2	I.P. anomaly; resistivity low; assays up to 1546 ppb Au.	
LL-89-4	903712	L24+00W; 11+25 S	180	-50	154.5	Mar. 3-5	I.P. anomaly; resistivity transition low to high.	
LL-89-5	903714	L29+00W; 12+00 S	0	-50	102.7	Mar. 5-7	I.P. anomaly	
LL-89-6	903714	29+75 W; 10+12.5 S	340	-45	175.9	Mar. 8-10	I.P. anomaly; resistivity low; assays up to 8151 ppb Au.	
LL-89-7	903718	L40+00W; 11+60 S	345	-50	157.6	Mar. 10-12	I.P. anomaly; resistivity low	.019/1.0,.03/1.7
LL-89-8	903718	L40+00W; 12+25 S	0	-50	99.7	Mar. 12-13	I.P. anomaly	.027/1.5,.010/1.0
LL-89-9	903718	38+80 W; 11+60 S	340	-50	154.5	Mar. 13-14	I.P. anomaly; resistivity low; assays up to 24,217 ppb Au.	0.205/1.5
LL-89-10	903718	L37+00W; 11+00 S	0	-50	175.9	Mar. 15-17	I.P. anomaly; low-mod. resistivity; assays up to 1641 ppb.	.017/0.6
LL-89-11	903706	L14+00W; 7+50 S	0	-50	148.4	Mar. 18-20	I.P. anomaly; resistivity low - high transition.	0.01/1.0, 0.245/1.3
LL-89-12	976964	L12+00W; 4+40 S	0	-50	142.3	Mar. 20-21	I.P. anomaly; resistivity low.	
LL-89-13	976964	11+75 W; 4+32.5 S	170	-50	197.2	Mar. 22-24	Thick section of unit 6. Assay of 394 ppb Au.	
LL-89-14	903703	L18+00W; 4+35 S	0	-50	194.2	Mar. 27-29	I.P. anomaly; resistivity low.	0.010/1.4
LL-89-15	903705	L19+00W; 4+62.5 S	180	-50	136.2	Mar. 30-31	I.P. anomaly; resistivity low;; assays to 125 ppb Au.	
LL-89-16	903718	38+50 W; 12+32.5 S	340	-50	246.0	Apr. 1-4	Deep hole under gold intersection in hole 9.	
LL-89-17		L38+00W; 11-70 S	345	-50	-	Not drilled		
LL-89-18	903718	37+87.5W; 12+25S	345	-50	264.2	Apr. 5-7	Deep hole along strike fr hole 9 intersection.	.013/0.95, .012/1.5,029/1.2
LL-89-19	903706	L13+00W; 7+35S	0	-50	178.9	Apr. 8-10	Along strike from gold intersection in hole 11.	.011/1.5,.010/1.5
LL-89-20	903706	L15+00W; 7+25S	0	-50	123.1	Apr. 10-11	Along strike from gold intersection in hole 11.	

\* Assay results  $\geq 0.01$  oz.Au/ton reported. Refer to hole summaries for details.

### DIAMOND DRILL PROGRAM SUMMARY

Cyprus Gold carried out a diamond drill program on the Laird Lake property during the Winter-Spring of 1989. N. Morissette Drilling Inc. was contracted to do the drilling. The author and geologist Viera Kovac provided the technical support for the program.

Nineteen BQ-sized holes were drilled for a total of 3091.6 meters (10,144 feet) from February 22 to April 11, 1989.

The drill targets included known gold occurrences and/or geophysical anomalies. Four of the holes were drilled to follow up significant intersections in hole LL-89-9 (0.205 oz Au/ton/1.5 meters) and hole LL-89-11 (0.245 oz Au/ton/1.3 meters).

A total of 1366 split core samples were taken for analysis. The samples were assayed by Accurassay Laboratories Ltd. of Red Lake. The fire assay-atomic absorption method was employed with a 0.001 oz gold/ton detection limit. Assay results are included with the drill logs in Appendix A and listed on the assay certificates in Appendix B.

The drill program is summarized in Table 2. Cross-sections for each hole are illustrated in Figures 3 to 21. Complete drill logs with the assay results comprise Appendix A. The drill hole locations with the significant gold intersections are depicted on the compilation map (pocket). A brief description of each hole is given below.

#### Hole No. LL-89-1

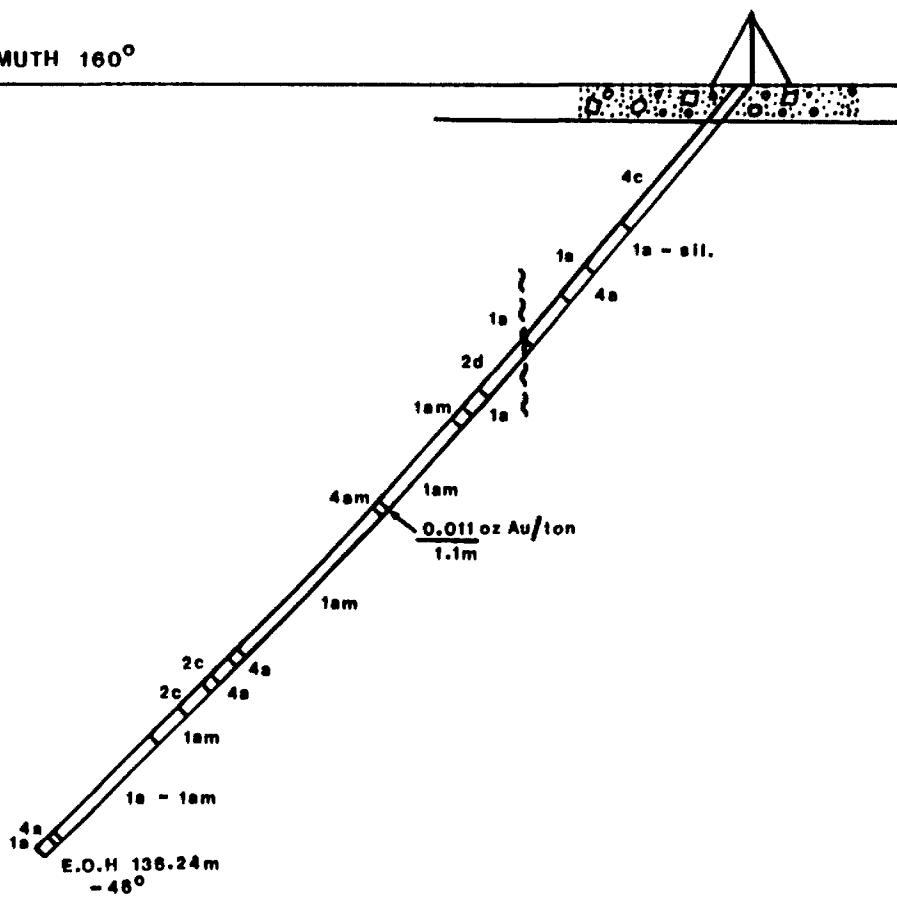
Target: Assays up to 1761 ppb Au from grab samples in felsic mylonite.  
Geology: Mafic volcanic flows intruded by granodiorite with extensive sections of protomylonite-mylonite and late mafic-intermediate dykes. Common silicification, local biotite alteration, local pyrite enrichment (up to 5%).  
Results: 70.9-72.0 : 0.011 oz Au/ton; 5-30% biotite alteration, 0.5-3.0% pyrite, mafic volcanic mylonite host.

#### Hole No. LL-89-2

Target: I.P. frequency effect anomaly of 6-7%, resistivity low, magnetic low, grab sample assays up to 1694 ppb Au from a silica flooded, sulfide-bearing chert horizon.  
Geology: Granodiorite and mafic volcanic flows with minor tuff and occasional interflow ferruginous sediment, sulfide iron formation and chert exhalite horizons.  
Results: 37.0-38.5 : 0.011 oz Au/ton; interflow siliceous sedimentary exhalite horizon with 3-5% pyrite-pyrrhotite.

LINE 21+40W; 7+75S

AZIMUTH 160°



#### LEGEND

- 4a GRANODIORITE; BIOTITIC
- 4am GRANODIORITE; MYLONITIC
- 4c GRANODIORITE; MIXED HYBRID
- 2c DIORITE
- 2d GABBRO; PYROXENE PORPHYRY
- 1a BASALT; FLOW
- 1am BASALT; MYLONITE

Assay - i.e. 0.011oz Au/ton  
1.1m

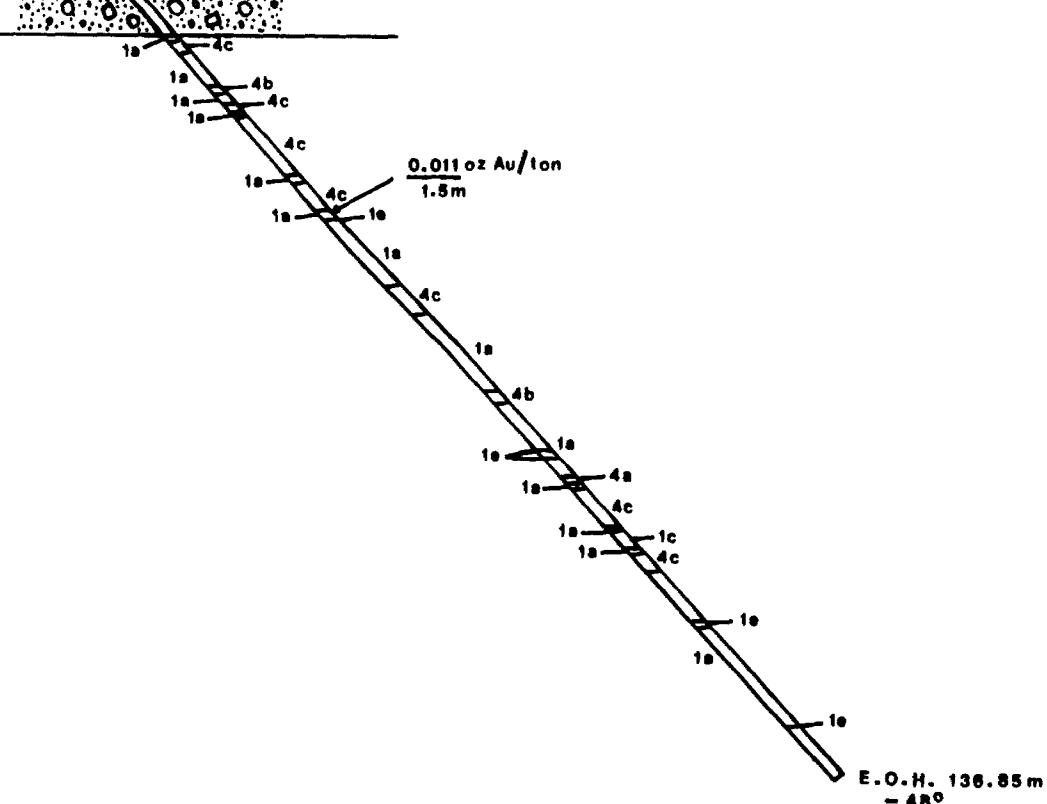
CYPRUS GOLD LTD.  
LAIRD LAKE PROPERTY  
D.D.H. LL-89-1  
CROSS-SECTION

scale 1:1,000

Figure 3

LINE 22+70W; 7+70S

AZIMUTH 330°



LEGEND

- [4a] GRANODIORITE; BIOTITIC
- [4b] LEUCOGRANODIORITE
- [4c] GRANODIORITE; MIXED HYBRID
- [1a] MAFIC VOLCANIC; FLOW
- [1c] MAFIC VOLCANIC; TUFF
- [1e] EXHALITE

Assay - 1e. 0.011 oz Au/ton  
1.5m

CYPRUS GOLD LTD.  
LAIRD LAKE PROPERTY  
D.D.H. LL-89-2  
CROSS-SECTION

scale 1:1,000

Figure 4

Hole No. LL-89-3

Target: Frequency effect anomaly of 6-7%, resistivity low, magnetic low near a sharp transition, 50 meters along strike from grab sample assays of up to 1546 ppb Au in po-rich chert horizon. Hole location was changed from the original planned position due to difficult terrain conditions.

Geology: Basalt flows with local mafic tuff intervals and common protomylonite sections. Common silicification, local biotite alteration, common disseminated pyrite-po of 0.5-1% locally to 10%.

Results: No significant assays.

Hole No. LL-89-4

Target: Frequency effect anomaly up to 6.3%, low to high resistivity transition.

Geology: Mafic volcanic flows and granodiorite with late gabbro dykes and common sections of mafic volcanic, granodiorite and felsic mylonites. Common to extensive silicification with local biotite alteration; very common 0.5-1% pyrite -locally to 3%.

Results: No significant assays.

Hole No. LL-89-5

Target: Frequency effect anomaly.

Geology: Mafic volcanic flows with granodiorite and late gabbro dykes and extensive sections of mafic volcanic, granodiorite and felsic mylonites. A fault zone occurs from 50.6 to 55.2. Common to extensive silicification, local biotite alteration and 0.5-1% pyrite - locally to 5%.

Results: No significant assays.

Hole No. LL-89-6

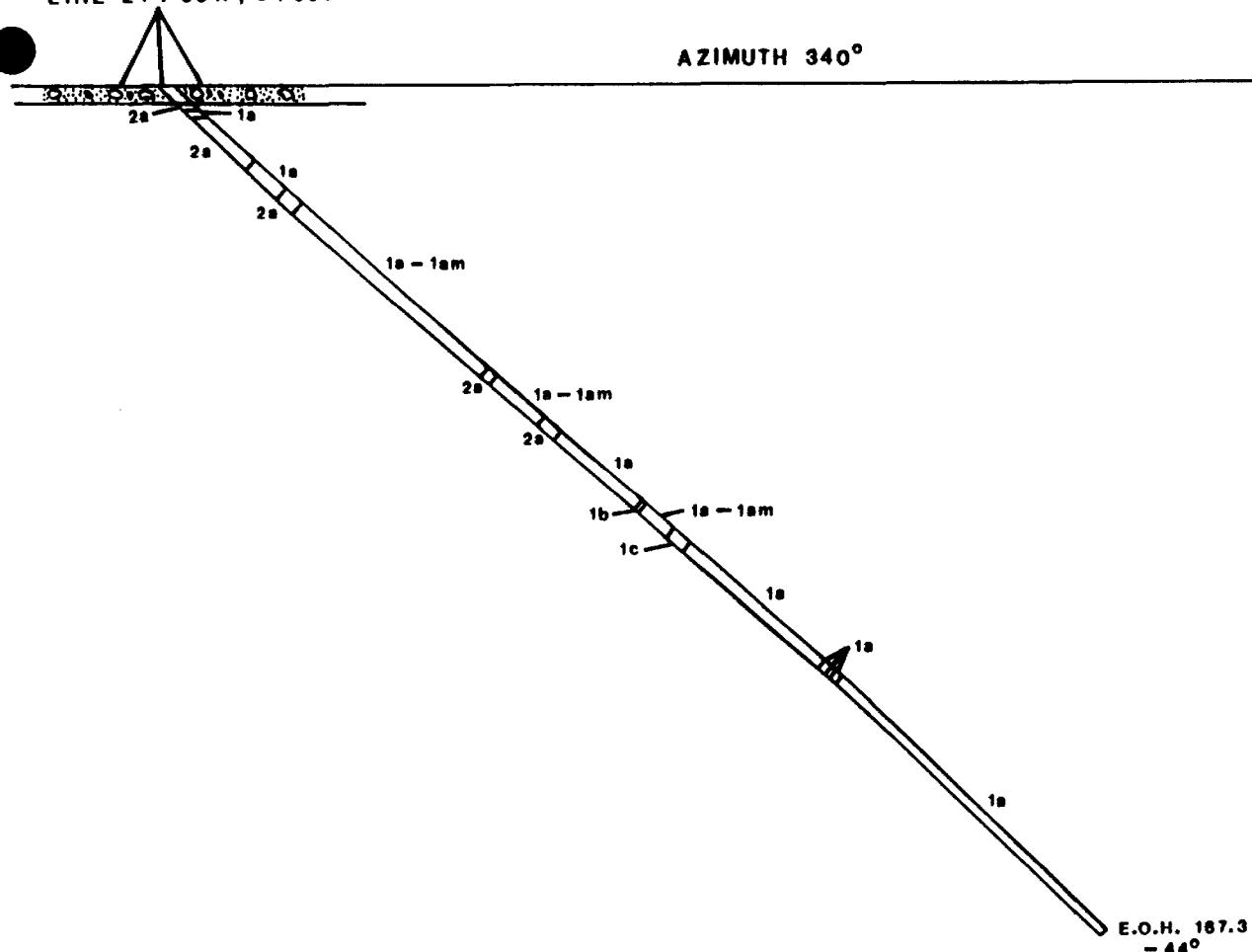
Target: Frequency effect anomaly up to 10.7%, resistivity low, magnetic high, grab sample assays from trenches up to 8151 ppb Au in sheared mafic volcanics and sulfide-bearing exhalites.

Geology: Tholeiitic and komatiitic basalts with interflow tuff and chert (10-15% pyrite) horizons and a 30 meter section of mafic volcanic mylonite. Common silicification, local biotite alteration and generally 0.5-1% pyrite - locally to 3%.

Results: No significant assays.

LINE 24 + 00W ; 8 + 05S

AZIMUTH 340°



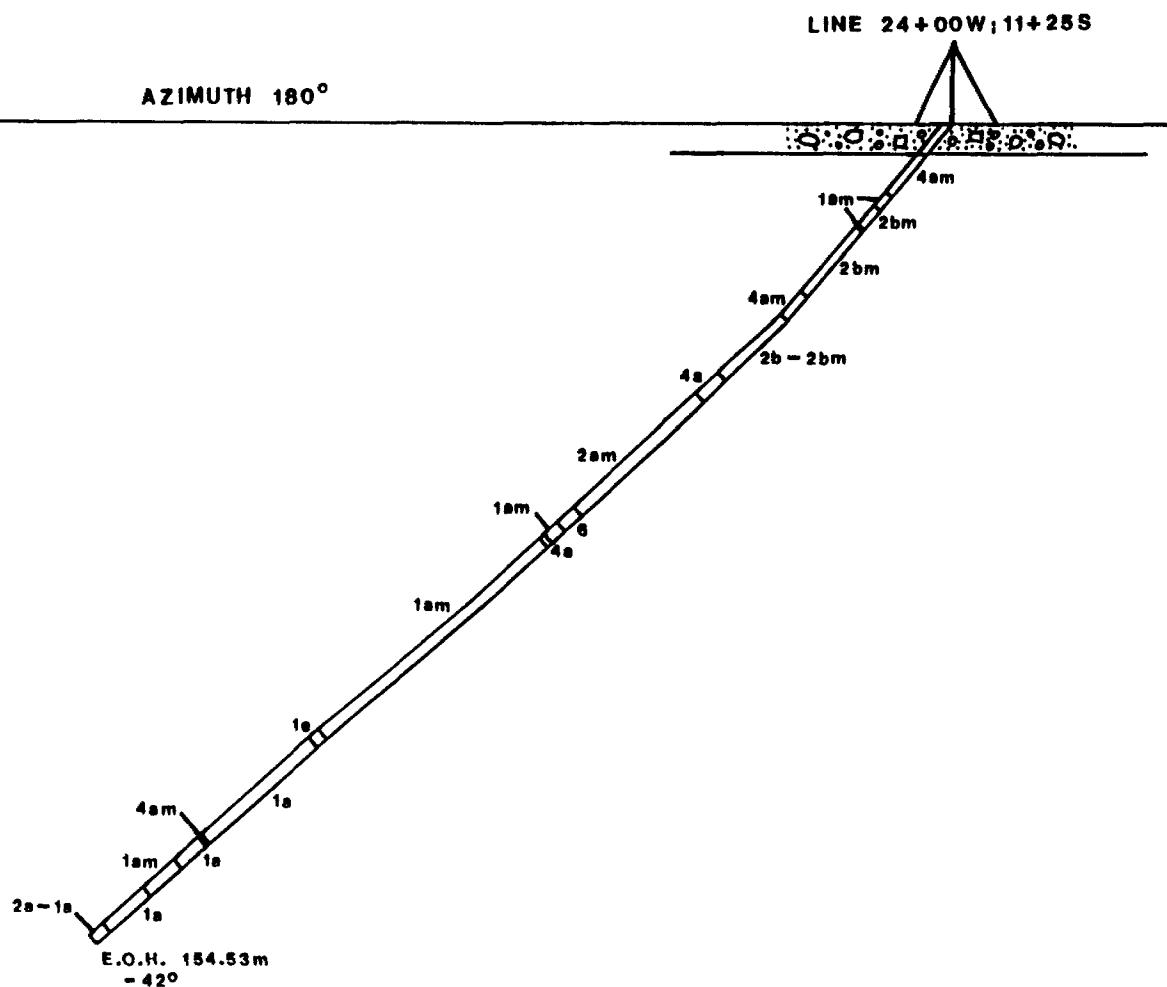
LEGEND

- 2a GABBO
- 1a BASALT - MAFIC VOLCANIC FLOW
- 1am MAFIC VOLCANIC; PROTOMYLONITE
- 1b MAFIC VOLCANIC LAPILLI TUFF
- 1c MAFIC VOLCANIC TUFF

CYPRUS GOLD LTD.  
LAIRD LAKE PROPERTY  
D.D.H. LL-89-3  
CROSS-SECTION

scale 1:1,000

Figure 5



**LEGEND**

- 6** FELSIC MYLONITE
  - 4a** GRANODIORITE; BIOTITIC
  - 4am** GRANODIORITE; PROTOMYLONITE - MYLONITE
  - 2a** GABBRO
  - 2b** GABBRO; FELDSPAR PORPHYRY
  - 2bm** GABBRO; FELDSPAR PORPHYRY - MYLONITE
  - 1a** MAFIC VOLCANIC FLOW
  - 1am** MAFIC VOLCANIC; PROTOMYLONITE - MYLONITE
  - 1e** EXHALITE

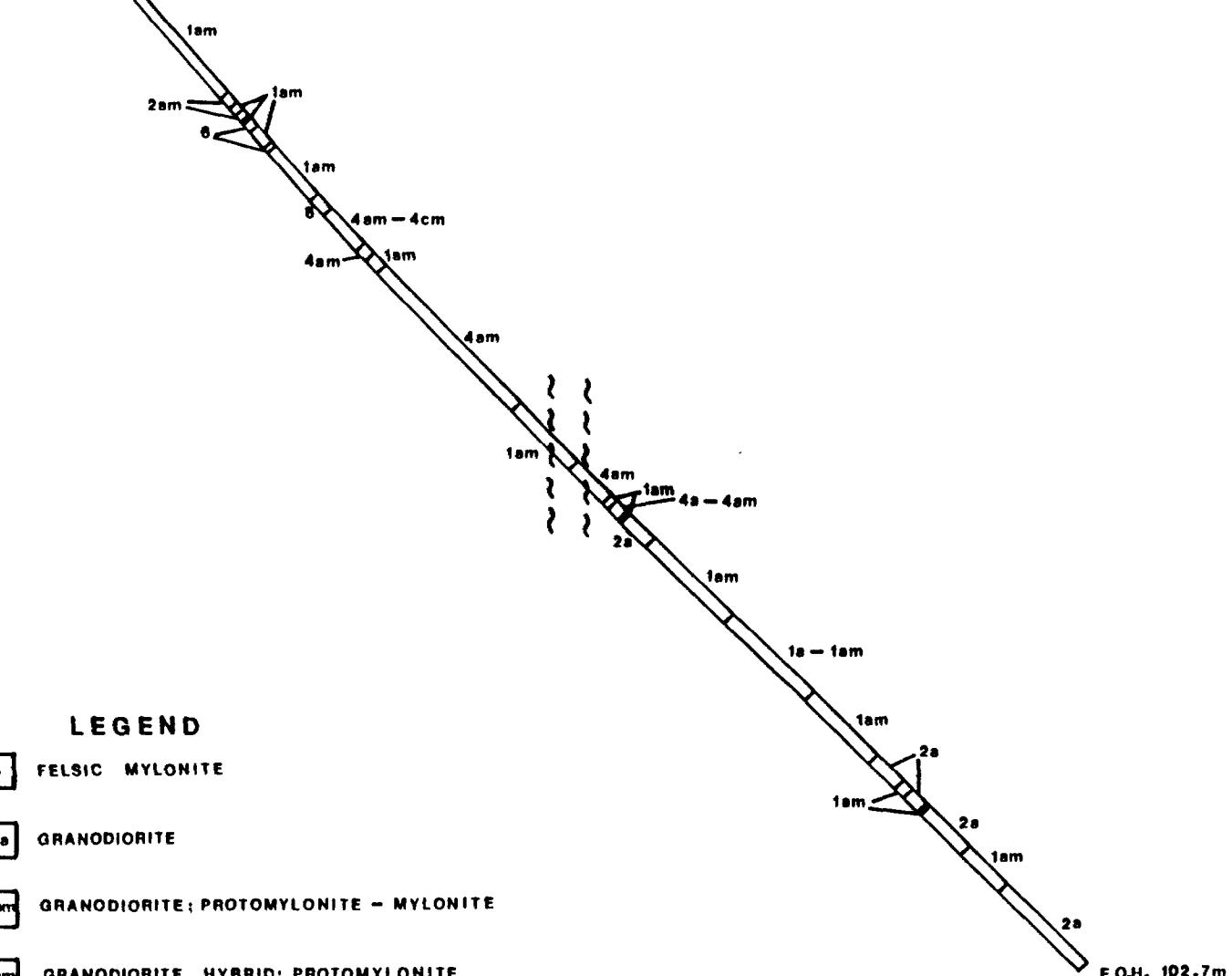
**CYPRUS GOLD LTD.**  
**LAIRD LAKE PROPERTY**  
**D.D.H. LL-89-4**  
**CROSS-SECTION**

scale 1 : 1,000

**Figure 6**

LINE 29 + 00W; 12 + 00S

AZIMUTH 0°



LEGEND

- [Box] 6 FELSIC MYLONITE
- [Box] 4a GRANODIORITE
- [Box] 4am GRANODIORITE; PROTOMYLONITE - MYLONITE
- [Box] 4cm GRANODIORITE HYBRID; PROTOMYLONITE
- [Box] 2a GABBRO
- [Box] 2am GABBRO; PROTOMYLONITE
- [Box] 1a MAFIC VOLCANIC FLOW
- [Box] 1am MAFIC VOLCANIC; PROTOMYLONITE - MYLONITE

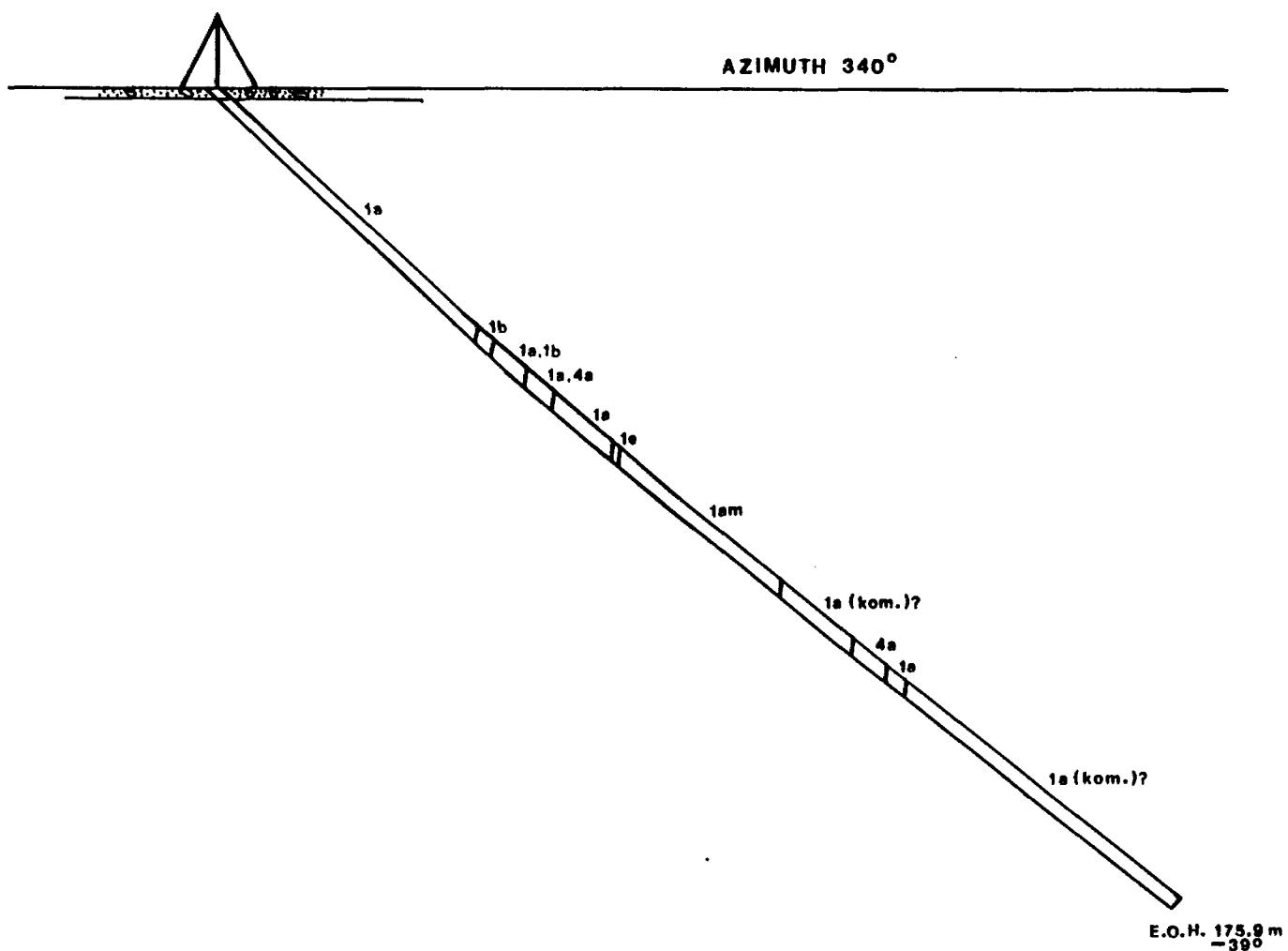
CYPRUS GOLD LTD.  
LAIRD LAKE PROPERTY  
D.D.H. LL-89-5  
CROSS-SECTION

scale 1 : 500

Figure 7

LINE 29 + 75W; 10 + 12.5S

AZIMUTH 340°



LEGEND

- 4a GRANODIORITE
- 1a(kom.)? BASALT - KOMATIITE ?
- 1a BASALT
- 1am BASALT; MYLONITE
- 1b MAFIC TUFF
- 1e EXHALITE

CYPRESS GOLD LTD.  
LAIRD LAKE PROPERTY  
D.D.H. LL-89-6  
CROSS-SECTION

scale 1:1,000

Figure 8

Hole No. LL-89-7

Target: Frequency effect anomaly up to 5-6%, resistivity low, magnetic high, approximately 120 meters along strike from "shaft occurrence" (refer to hole 9).

Geology: Komatiite basalt flows with common mylonitic sections and local granodiorite dykes. Very common alternating sections of talc/carbonate and biotite altered mafic volcanic, common 0.5-1% pyrite - locally to 3%, local quartz veining.

Results: 109.8-110.8 : .019 oz Au/ton; 2-3% pyrite, local quartz veinlets.  
115.1-116.8 : .030 oz Au/ton; 1-3% pyrite, local quartz veinlets, 10-30% biotite alteration.  
141.3-142.3 : .010 oz Au/ton; 1-2% pyrite, local quartz veinlets, 5-20% biotite alteration.  
152.0-153.5 : .027 oz Au/ton; 0.5-1% pyrite, local quartz veinlets, 10-30% biotite alteration.

Hole No. LL-89-8

Target: Frequency effect anomaly.

Geology: Basalt flows (tholeiite) with common mafic volcanic mylonite, minor felsic mylonite and local granodiorite dykes. Common talc/carbonate alteration with local silicification, common 0.5-1% pyrite-po - locally to 10%.

Results: 34.9-36.4 : .012 oz Au/ton; section of alternating extensive talc/carbonate and silica alteration, 2-10% pyrite-po.

Hole No. LL-89-9

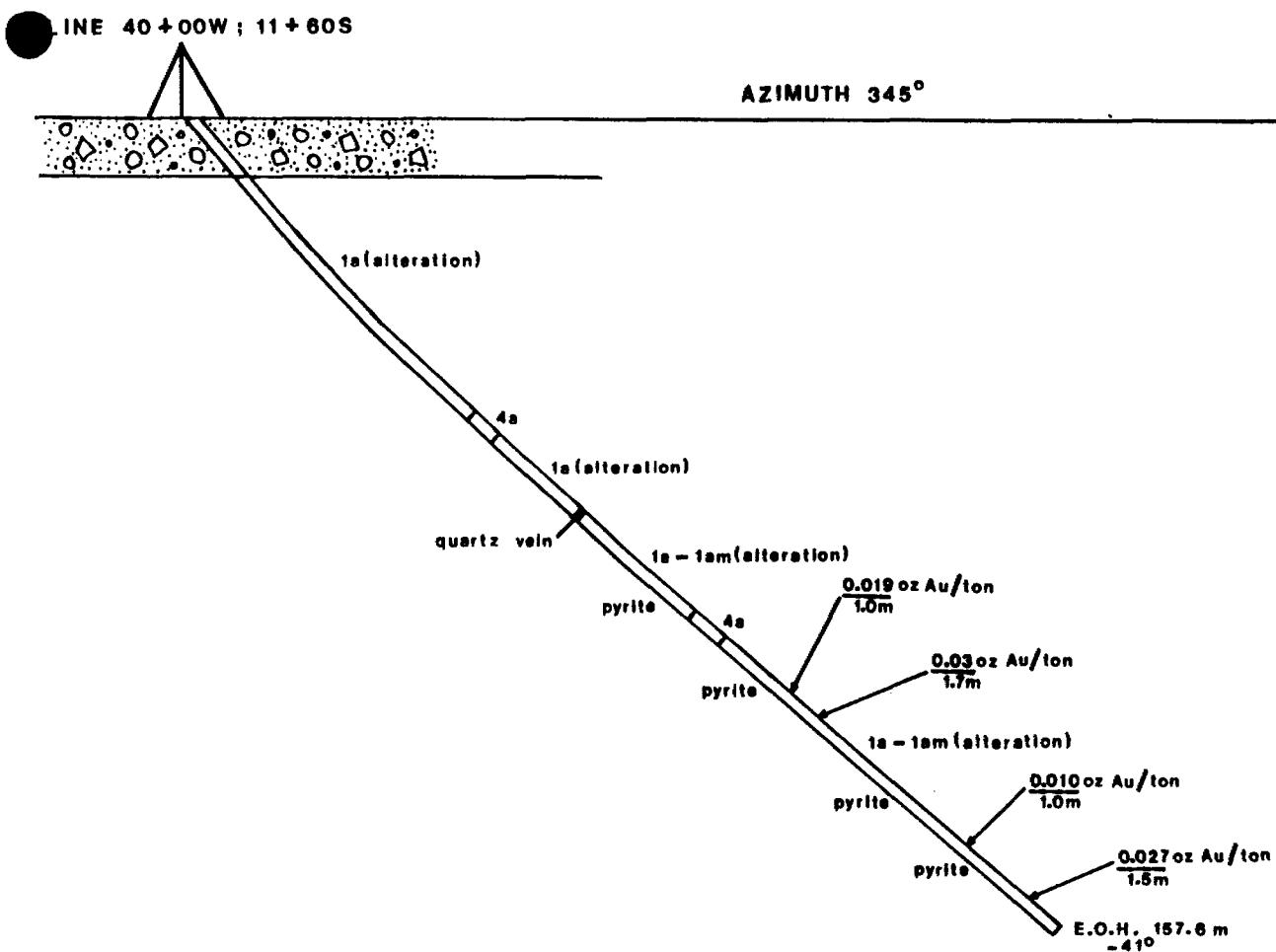
Target: Frequency effect anomaly up to 5-6%, low resistivity, magnetic high, rock sample assays up to 24,217 ppb Au from a sheared quartz vein-alteration zone in an old shaft and trenches.

Geology: Upper half of the hole consists of tholeiitic basalts with local mafic volcanic mylonites and granodiorite and diorite dykes; bottom half comprises komatiite basalt and ultramafic flows. Common talc/carbonate and biotite alteration throughout hole, local silicification, common, local sections of quartz veinlets, generally  $\leq$  0.5% pyrite - rarely to 2-3%..

Results: 35.2-36.7 : 0.205 oz Au/ton; local silicification, minor grey quartz veinlets, patches of reddish-brown biotite alteration, 0.5% pyrite, basalt flow host.

Hole No. LL-89-10

Target: Frequency effect anomaly up to 5-6%, low - moderate resistivity, weak magnetic high, grab sample assays up to 1641 ppb Au.



#### LEGEND

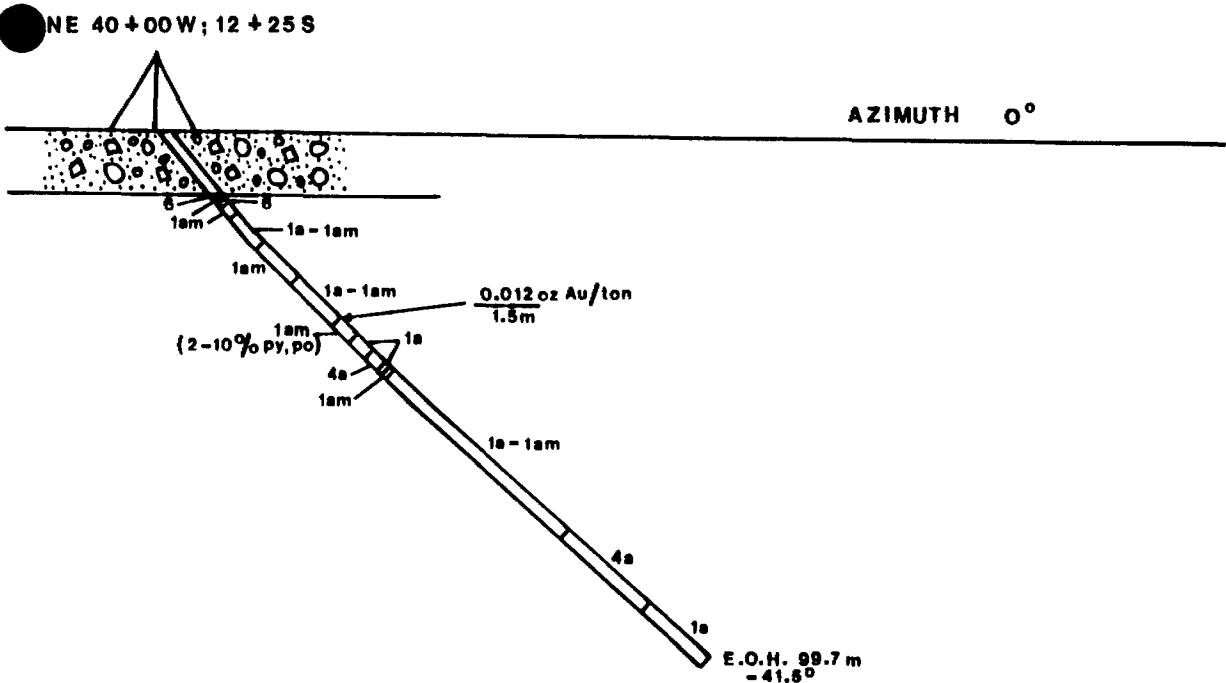
- 4a GRANODIORITE ; BIOTITIC
- 1a BASALT FLOW
- 1am BASALT; PROTOMYLONITE - MYLONITE

Assay - i.e. 0.019oz Au/ton  
1.1m

CYPRUS GOLD LTD.  
LAIRD LAKE PROPERTY  
D.D.H. LL-89-7  
CROSS-SECTION

scale 1:1,000

Figure 9



#### LEGEND

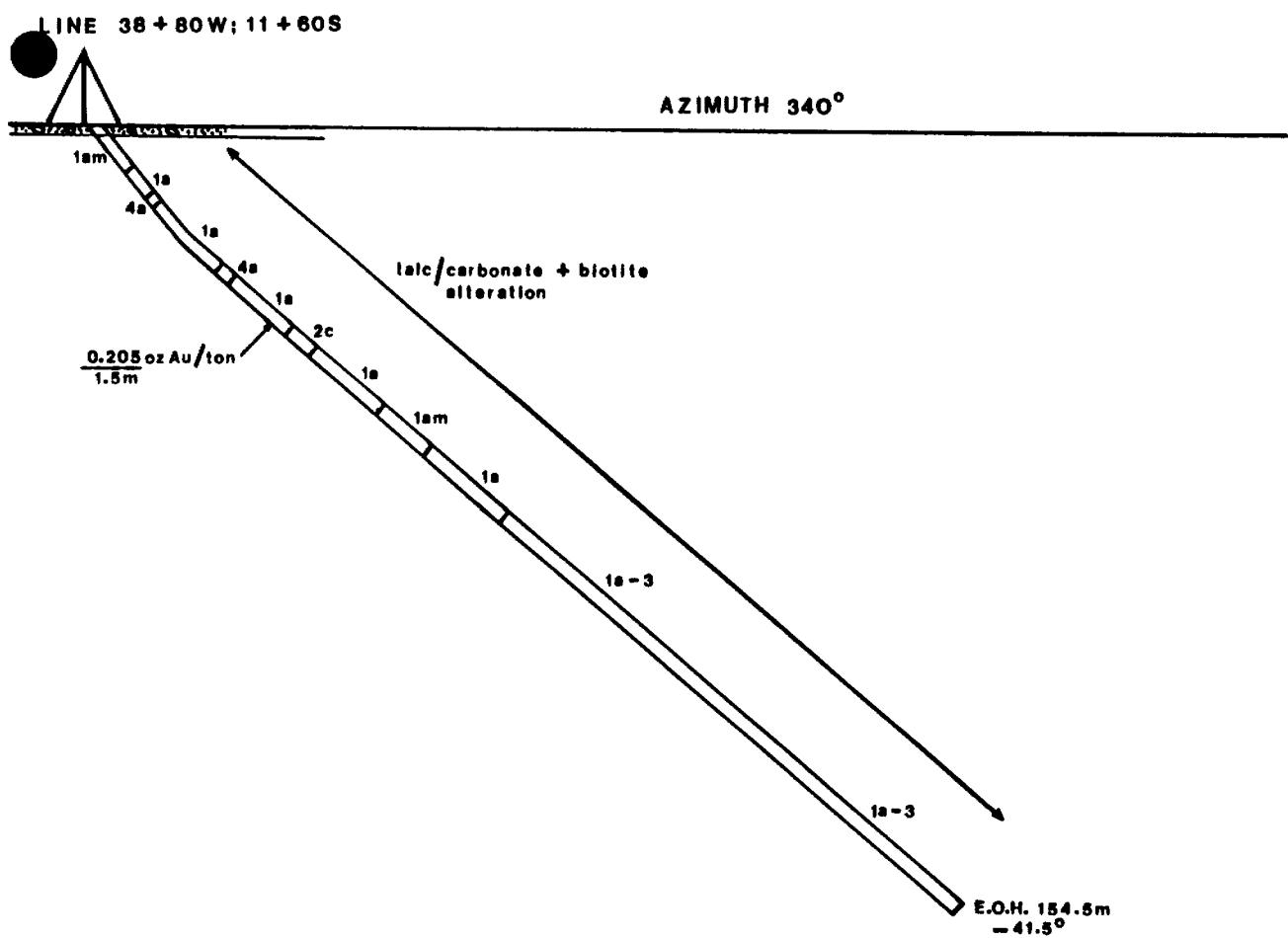
- 6 FELSIC MYLONITE
- 4a GRANODIORITE
- 1a BASALT FLOW
- 1am MAFIC VOLCANIC PROTOMYLONITE - MYLONITE

Assay - ie.  $\frac{0.012 \text{ oz Au}}{1.5 \text{m}}$

CYPRESS GOLD LTD.  
LAIRD LAKE PROPERTY  
D.D.H. LL-89-8  
CROSS-SECTION

scale 1:1,000

Figure 10



### LEGEND

- 4a GRANODIORITE
- 3 BASALT - ULTRAMAFIC FLOW
- 2c DIORITE
- 1a BASALT FLOW
- 1am MAFIC VOLCANIC MYLONITE

Assay - i.e.  $0.205 \text{ oz Au/ton}$   
1.5m

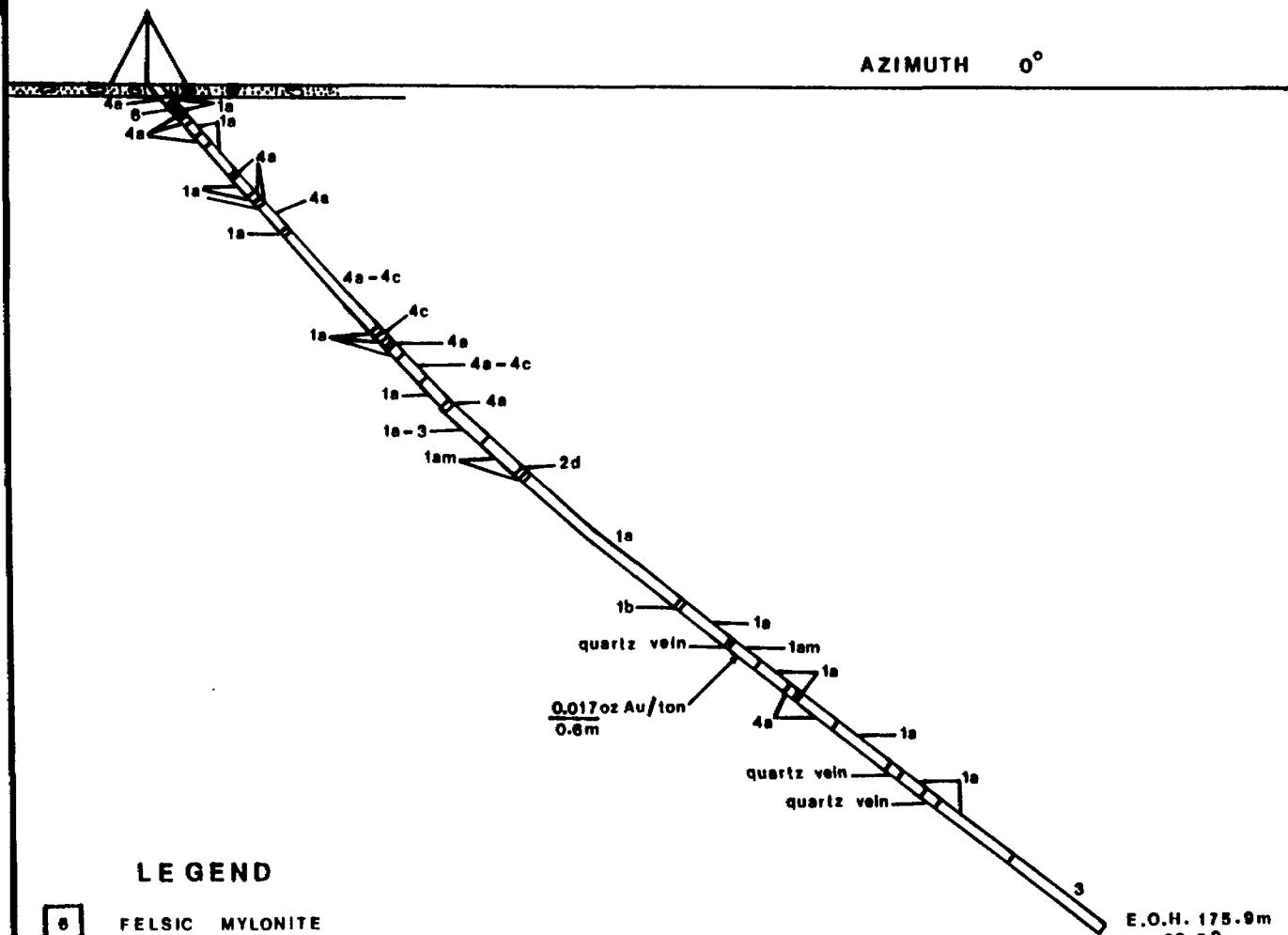
CYPRUS GOLD LTD  
LAIRD LAKE PROPERTY  
D.D.H. LL-89-9  
CROSS-SECTION

scale 1:1,000

Figure 11

LINE 37+00W; 11+00S

AZIMUTH 0°



LEGEND

- 4b FELSIC MYLONITE
- 4a GRANODIORITE; BIOTITIC
- 4c GRANODIORITE; BASALT HYBRID
- 3 ULTRAMAFIC FLOW
- 2d GABBRO; PYROXENE PORPHYRY
- 1a BASALT FLOW
- 1am MAFFIC VOLCANIC; PROTOMYLONITE - MYLONITE
- 1b BASALT; LAPILLI TUFF

Assay - i.e.  $\frac{0.017 \text{ oz Au}}{0.6 \text{ m}}$

CYPRUS GOLD LTD.  
LAIRD LAKE PROPERTY  
D.D.H. LL-89-10  
CROSS-SECTION

scale 1:1,000

Figure 12

Geology: Mixed succession of tholeiitic basalt flows with minor tuff, komatiitic basalt-ultramafic flows, granodiorite, late gabbro dykes and local units of mafic volcanic and felsic mylonite. Common talc/carbonate alteration, local biotite alteration, local silicification, local grey quartz veining, occasional exhalite horizons with 2-10% pyrite-po, generally  $\leq$  0.5-1% pyrite-po.

Results: 112.9-113.5 : .017 oz Au/ton; 50-100% silicification, 5-10% pyrite-po as disseminations and stringers, possible chert exhalite.

Hole No. LL-89-11

Target: Frequency effect anomaly up to 8-9%, high to low resistivity transition.

Geology: Mafic volcanic mylonite and granodiorite mylonite with minor felsic mylonite. Generally 0.5-1% pyrite - locally to 15%. Interval 38.2-54.0 generally 1-15% pyrite as disseminations, stringers and bands parallel to foliation. Very common silicification, local biotite alteration, local quartz veinlets-stringers.

Results: 42.5-43.5 : .010 oz Au/ton; 10-15% banded pyrite in granodiorite mylonite unit.  
43.5-44.8 : .245 oz Au/ton; granodiorite mylonite with 1-2% pyrite, quartz stringers, pyrite and quartz stringers coexist along foliation planes, extensive silicification.

Hole No. LL-89-12

Target: Frequency effect anomaly up to 13%, resistivity low, weak magnetic high.

Geology: Tholeiite and komatiite basalts, granodiorite, gabbro and hornblendite. Extensive faulting through middle part of hole. Local silicification, common talc alteration in komatiite sections, generally 0.5% pyrite but locally up to 10%.

Results: No significant assays.

Hole No. LL-89-13

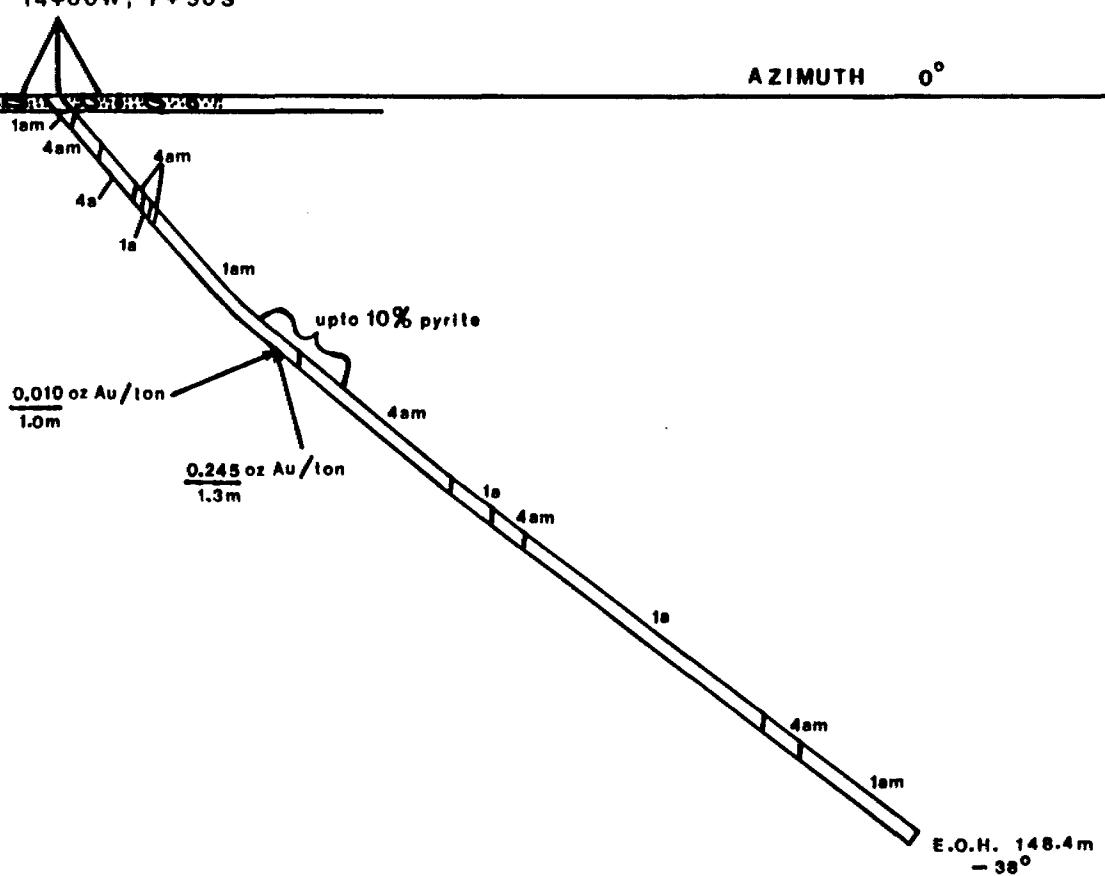
Target: Thick felsic mylonite section with a grab sample assay of 394 ppb Au.

Geology: Relatively undeformed basalt flows, granodiorite and gabbro through the upper one third and mafic volcanic mylonite and felsic mylonite over the bottom section of the hole. Mylonites are generally silicified with 0.5-1% pyrite - rarely to 5% and common sections of minor quartz veinlets and stringers.

Results: No significant assays.

NE 14+00W; 7 + 50S

AZIMUTH 0°



LEGEND

- 1a GRANODIORITE
- 4am GRANODIORITE; MYLONITE
- 1s BASALT FLOW
- 1am BASALT; MYLONITE

Assay - 1a, 0.010oz Au/ton  
0.6m

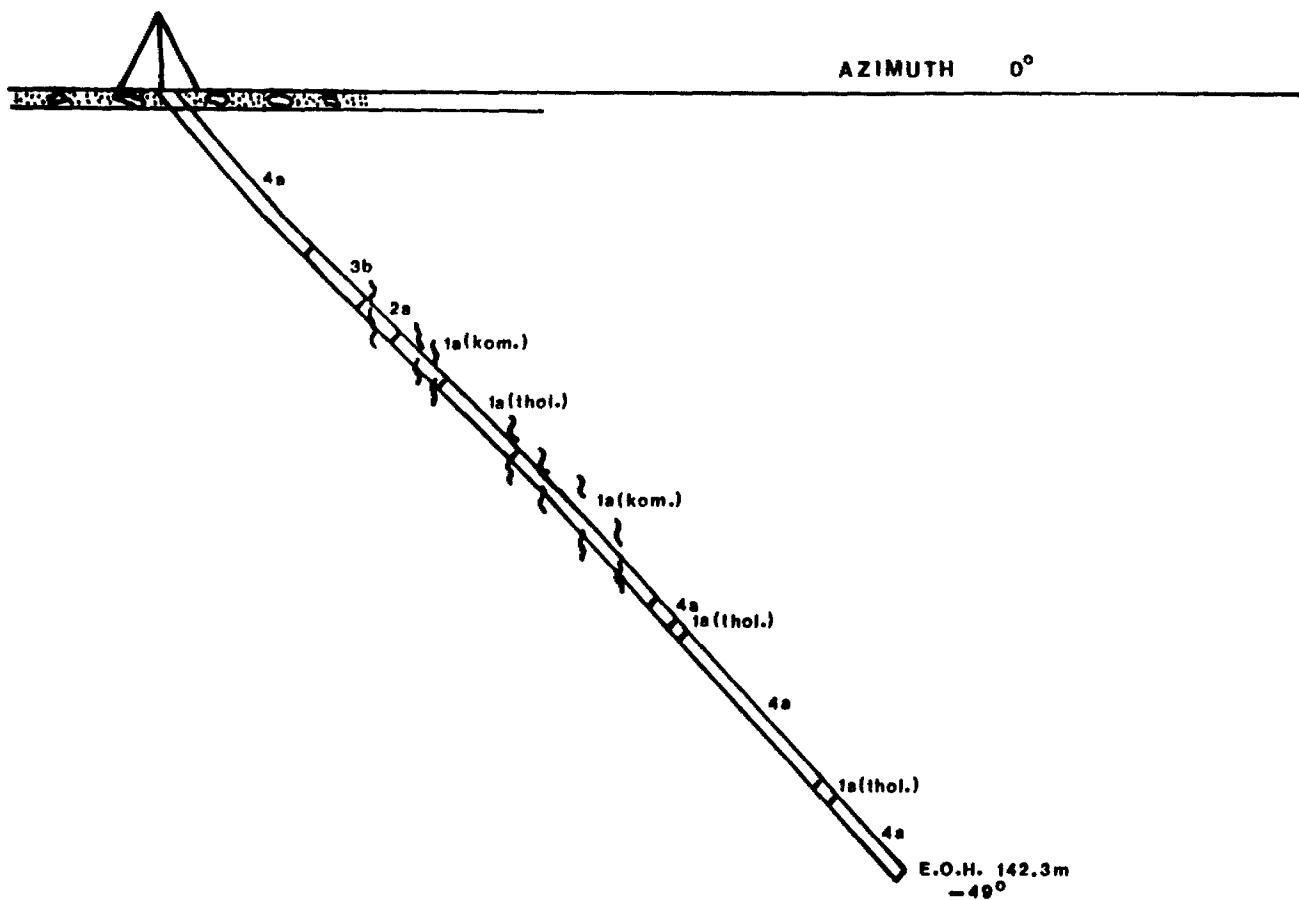
CYPRUS GOLD LTD.  
LAIRD LAKE PROPERTY  
D.D.H. LL-89-11  
CROSS-SECTION

scale 1:1,000

Figure 13

LINE 12+00W; 4+40S

AZIMUTH 0°



LEGEND

- [Box] 4a GRANODIORITE; BIOTITIC
- [Box] 3b HORNBLENDITE
- [Box] 2a GABBRO
- [Box] 1a(kom.) BASALT FLOW; KOMATIITE(?)
- [Box] 1a(thol.) BASALT FLOW; THOLEIITE(?)

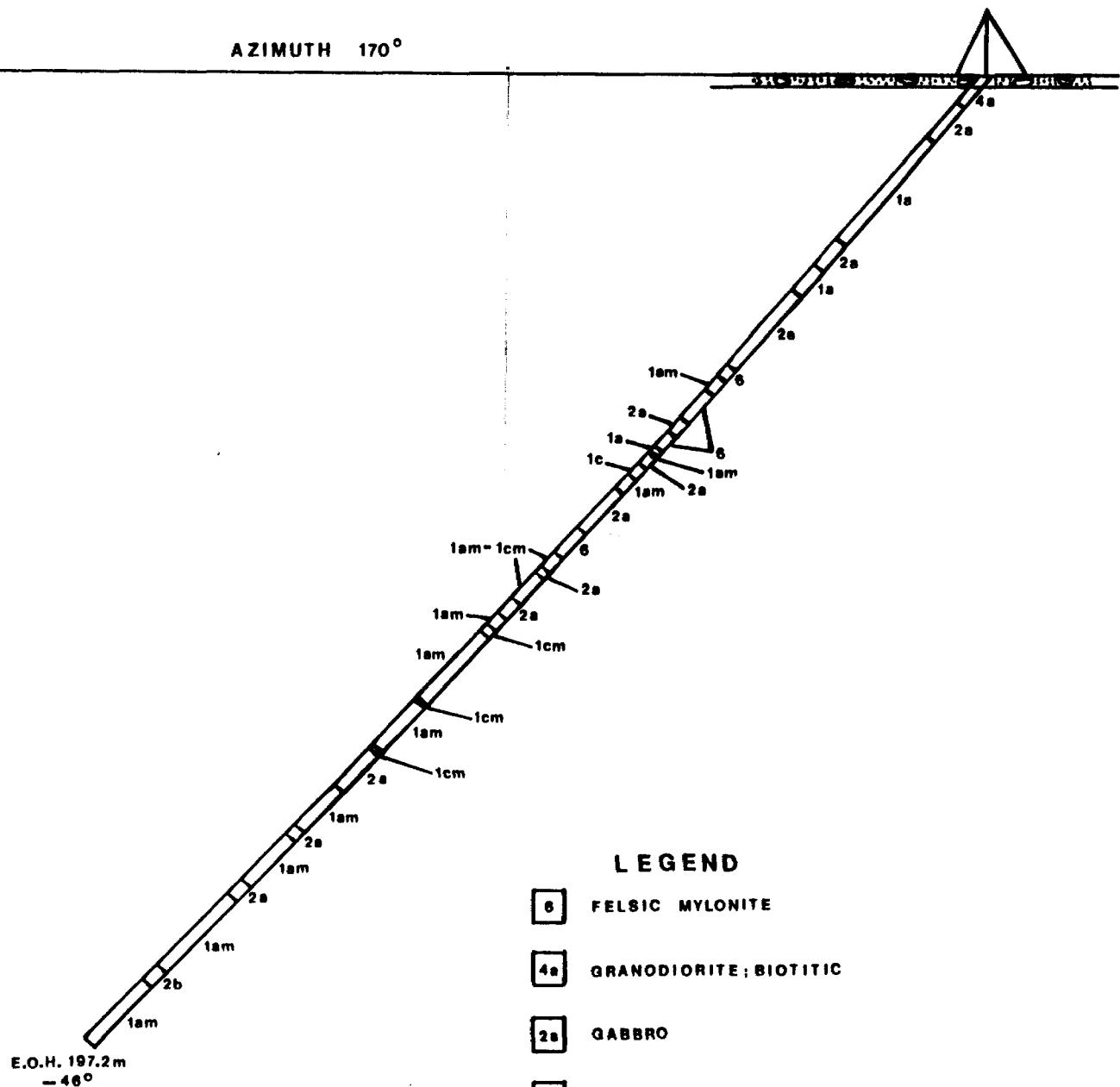
CYPRUS GOLD LTD.  
LAIRD LAKE PROPERTY  
D.D.H. LL-89-12  
CROSS-SECTION

scale 1:1,000

Figure 14

LINE 11 + 75 W; 4 + 32.5 S

AZIMUTH 170°



**CYPRUS GOLD LTD.**  
**LAIRD LAKE PROPERTY**  
**D.D.H. LL-89-13**  
**CROSS-SECTION**

scale 1:1,000

## LEGEND

- 6 FELSIC MYLONITE
  - 4a GRANODIORITE; BIOTITIC
  - 2a GABBRO
  - 2b GABBRO; FELDSPAR PORPHYRY
  - 1a BASALT FLOW
  - 1am MAFIC VOLCANIC PROTOMYLONITE - MYLONITE
  - 1c BASALT TUFF
  - 1cm MAFIC VOLCANIC TUFF PROTOMYLONITE

**Figure 15**

Hole No. LL-89-14

Target: Frequency effect anomaly up to 13%, resistivity low, magnetic high.

Geology: Komatiite basalt-ultramafic flows and tholeiite basalt flows with granodiorite, diorite and hornblendite dykes. Local biotite or talc alteration in volcanic units, generally  $\leq$  0.5% pyrite - locally to 3%, common fault zones in central portion of hole.

Results: 28.5-29.9 : .010 oz Au/ton; 15% quartz stringers, biotite alteration.

Hole No. LL-89-15

Target: Frequency effect up to 7%, resistivity low, weak magnetic high, rock grab samples from trenches up to 125 ppb Au.

Geology: Tholeiitic basalt with minor komatiite basalt and common mafic volcanic mylonite. Common silicification, local biotite alteration, generally 0.5% pyrite, locally to 3%, common silica veinlets and local grey quartz veins-veinlets.

Results: No significant assays.

Hole No. LL-89-16

Target: Deep hole under gold intersection (0.205 oz Au/ton across 1.5 meters) in hole 9.

Geology: Basalt flows and mafic volcanic mylonite with minor felsic mylonite and common intrusions of granodiorite, diorite and gabbro. Very common silica and biotite alteration, minor chlorite and local carbonate alteration, generally  $\leq$  0.5% pyrite - locally to 2%.

Results: No significant assays.

Hole No. LL-89-17

Not drilled.

Hole No. LL-89-18

Target: Deep hole approximately 100 meters along strike to the east from hole 9.

Geology: Mafic volcanic mylonite with minor basalt flows and dykes of granodiorite and gabbro. Common silica and local carbonate alteration, local biotite and minor chlorite alteration, generally  $\leq$  0.5% pyrite - up to 3%, common silica or quartz veinlets.

Results: 58.45-59.4 : .013 oz Au/ton; 50-100% silicification, up to 3% pyrite.  
66.9-68.4 : .012 oz Au/ton; 50-100% silicification, up to 3% pyrite, local grey quartz veinlets.  
137.5-138.7 : .029 oz Au/ton; 20-40% silicification,

LINE 18+00W; 4+35S

AZIMUTH 0°

0.010oz Au/Ion  
1.4m

LEGEND

- 4am GRANODIORITE; PROTOMYLONITE
- 3b HORNBLENDITE
- 3a ULTRAMAFIC FLOW
- 2c DIORITE
- 1a BASALT

Assay - i.e., 0.010oz Au/Ion  
1.4m

E.O.H. 194.1m  
- 43°

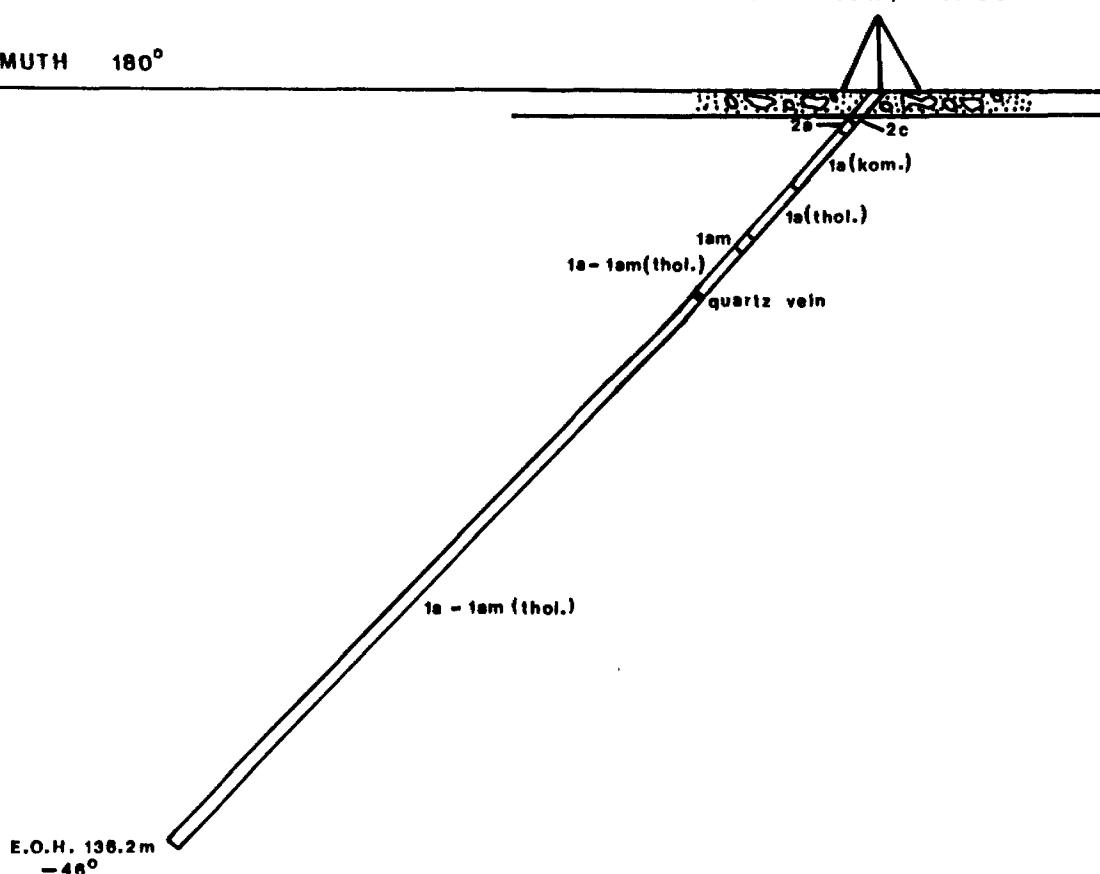
CYPRUS GOLD LTD.  
LAIRD LAKE PROPERTY  
D.D.H. LL-89-14  
CROSS-SECTION

scale 1:1,000

Figure 16

LINE 19 + 00W; 4 + 62.5S

AZIMUTH 180°



LEGEND

- 2a GABBRO
- 2c DIORITE
- 1a(kom.) BASALT FLOW; KOMATIITE (?)
- 1a(thol.) BASALT FLOW; THOLEIITE (?)
- 1am MAFIC VOLCANIC PROTOMYLONITE - MYLONITE

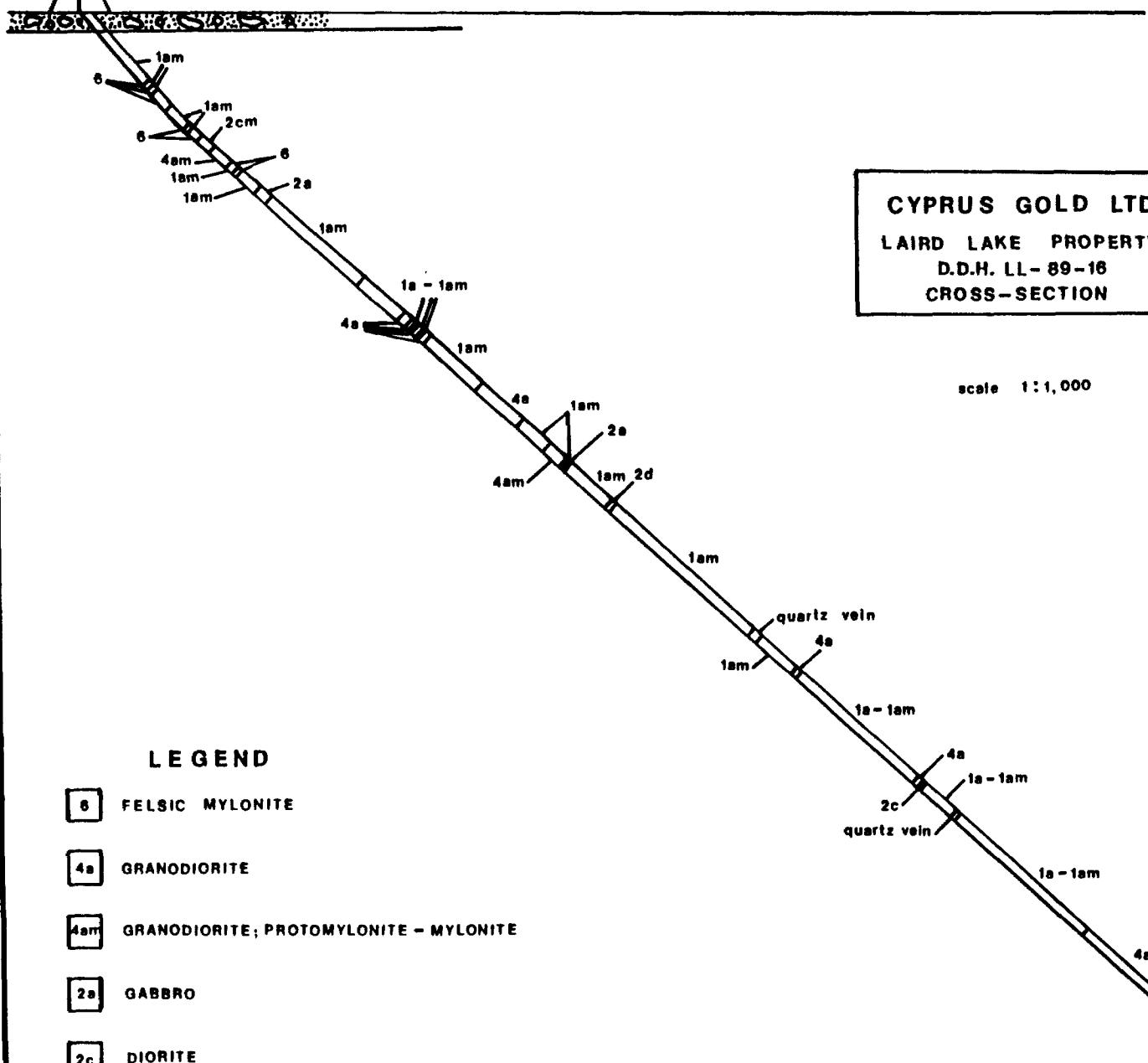
CYPRUS GOLD LTD.  
LAIRD LAKE PROPERTY  
D.D.H. LL-89-15  
CROSS-SECTION

scale 1:1,000

Figure 17

LINE 38 + 50W; 12 + 32.5S

AZIMUTH 340°



CYPRUS GOLD LTD.  
LAIRD LAKE PROPERTY  
D.D.H. LL-89-16  
CROSS-SECTION

LEGEND

- [Box] 6 FELSIC MYLONITE
- [Box] 4a GRANODIORITE
- [Box] 4am GRANODIORITE; PROTOMYLONITE - MYLONITE
- [Box] 2a GABBRO
- [Box] 2c DIORITE
- [Box] 2cm DIORITE; PROTOMYLONITE
- [Box] 2d GABBRO; PYROXENE PORPHYRY
- [Box] 1a BASALT FLOW
- [Box] 1am MAFIC VOLCANIC; PROTOMYLONITE - MYLONITE
- [Box] "GRANITIC" QUARTZ VEIN
- [Box] 1am 2cm
- [Box] 1am 2a
- [Box] 1am 1am
- [Box] 1am 4a
- [Box] 1am 2a
- [Box] 1am 2d
- [Box] 1am
- [Box] 4a
- [Box] 1a - 1am
- [Box] 4a
- [Box] 1a - 1am
- [Box] 4a
- [Box] 2c
- [Box] quartz vein
- [Box] 1a - 1am
- [Box] 4a
- [Box] 1a - 1am
- [Box] 4a

Figure 18

LINE 37 + 87.5W; 12 + 25S

AZIMUTH 345°

2b

1am

2a

1am

2a

1am

4a

1cm

1am

0.012 oz Au/ton  
1.5m

0.013 oz Au/ton  
0.95m

2a

1am

4a

1am

4am  
1am

0.029 oz Au/ton  
1.2m

0.011 oz Au/ton  
1.5m

1cm

2a

0.010 oz Au/ton  
1.5m

1am

E.O.H. 284.2 m  
— 42.5°

CYPRUS GOLD LTD.  
LAIRD LAKE PROPERTY  
D.D.H. LL-89-18  
CROSS-SECTION

scale 1:1,000

#### LEGEND

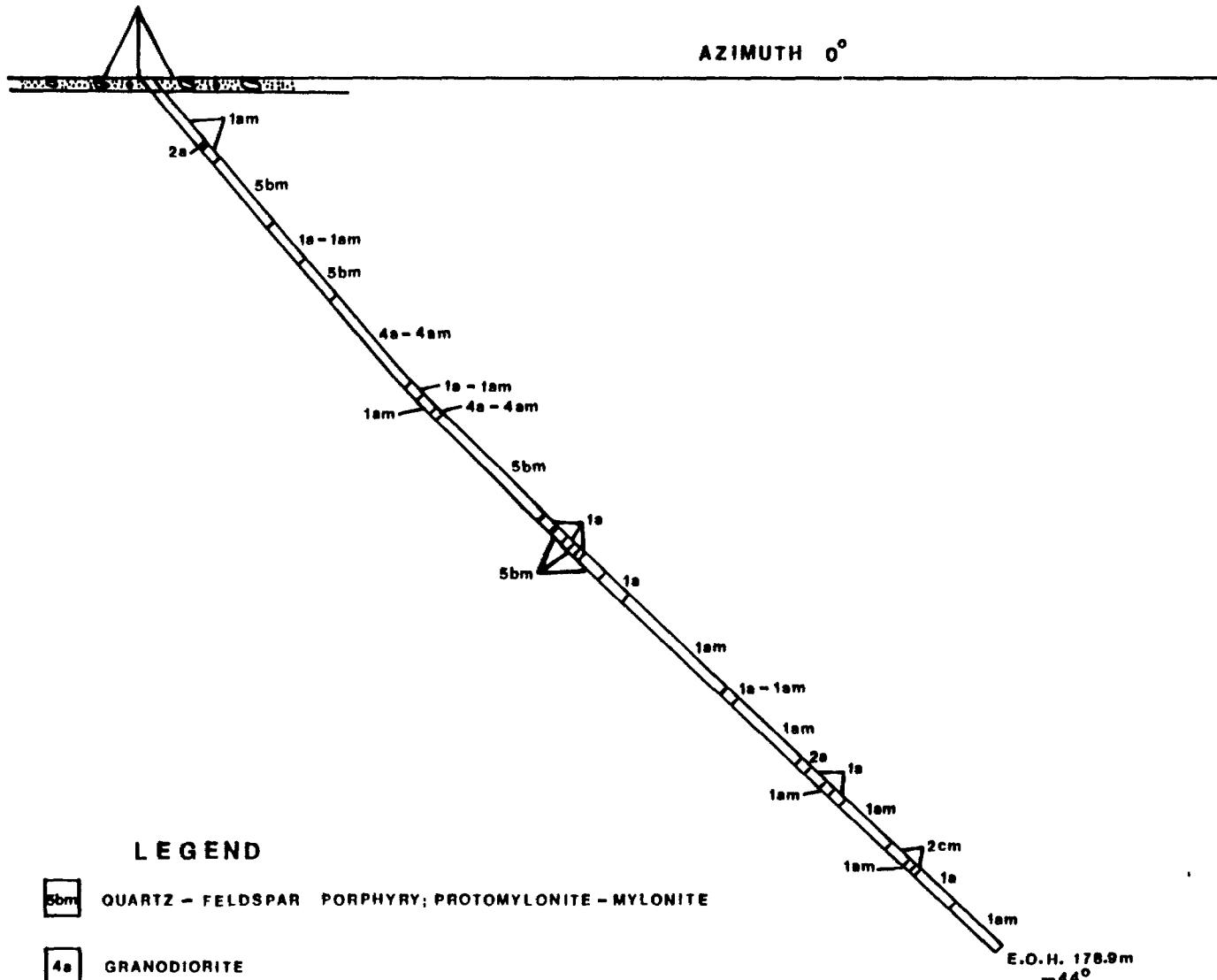
- 4a GRANODIORITE
- 4am GRANODIORITE : PROTOMYLONITE - MYLONITE
- 2a GABBRO
- 2b GABBRO : FELDSPAR PORPHYRY
- 1a BASALT FLOW
- 1am MAFIC VOLCANIC PROTOMYLONITE - MYLONITE
- 1cm MAFIC VOLCANIC TUFF PROTOMYLONITE

Assay — i.e.  $\frac{0.029 \text{ oz Au}}{1.5\text{m}}$

Figure 19

LINE 13 + 00W; 7 + 35S

AZIMUTH 0°



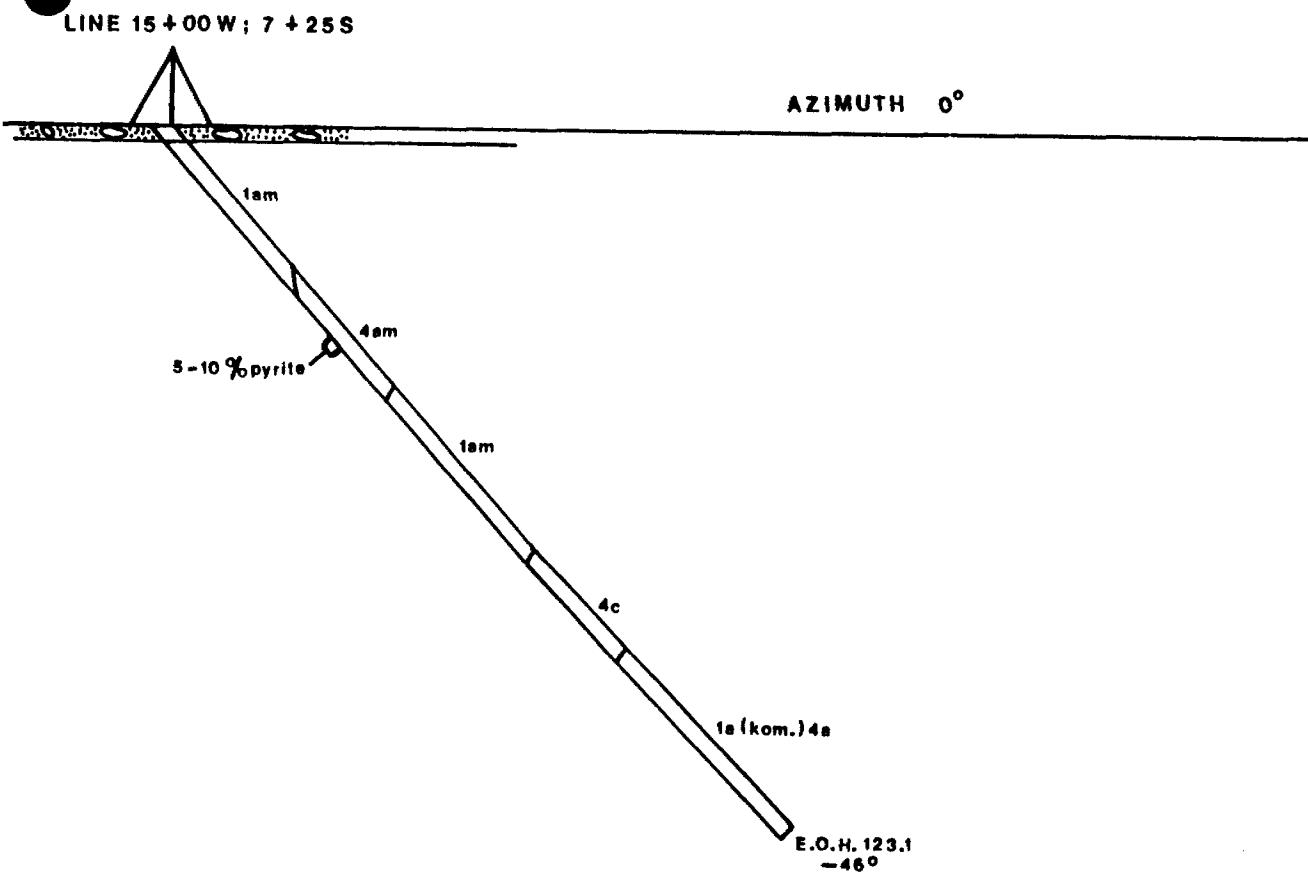
LEGEND

- 5bm:** QUARTZ - FELDSPAR PORPHYRY; PROTOMYLONITE - MYLONITE
- 4a:** GRANODIORITE
- 4am:** GRANODIORITE: PROTOMYLONITE
- 2a:** GABBRO
- 2cm:** DIORITE; PROTOMYLONITE
- 1a:** BASALT FLOW
- 1am:** MAFIC VOLCANIC; PROTOMYLONITE - MYLONITE

CYPRUS GOLD LTD.  
LAIRD LAKE PROPERTY  
D.D.H. LL-89-19  
CROSS-SECTION

scale 1:1,000

Figure 20



### LEGEND

- 1a (kom.) 4a HYBRID: BASALT (KOMATIITE ?) WITH GRANODIORITE CONTAMINATION
- 4c HYBRID: BASALT WITH GRANODIORITE CONTAMINATION
- 4am GRANODIORITE; MYLONITE
- 1am BASALT: MYLONITE

CYPRUS GOLD LTD.  
LAIRD LAKE PROPERTY  
D.D.H. LL-89-20  
CROSS-SECTION

scale 1:1,000

Figure 21

10-50% biotite alteration, 1% silica veinlets.  
138.7-140.2 : .011 oz Au/ton; banded chlorite, biotite, carbonate alteration, < 1% silica veinlets, 0.5-3% pyrite-po.  
158.4-159.9 : .010 oz Au/ton; biotite, carbonate, chlorite banded alteration.

Hole No. LL-89-19

Target: Frequency effect anomaly about 100 meters along strike to the east of the hole 11 gold intersection (0.245 oz gold/ton across 1.3 meters).  
Geology: Mylonitic mafic volcanic, granodiorite and quartz-feldspar porphyry. Generally silicified with -5-1% pyrite - locally to 10%. Interval 16.6-17.45 - 3 to 10% pyrite as stringers and bands parallel to the foliation. Local biotite alteration, local quartz or silica veinlets.  
Results: No significant assays.

Hole No. LL-89-20

Target: Frequency effect anomaly about 100 meters along strike to the west from the hole 11 intersection.  
Geology: Upper half of the hole consists of mylonitized mafic volcanic and granodiorite with the lower half comprising relatively undeformed komatiitic basalt and granodiorite. Mylonitized section generally silicified with local biotite alteration and local quartz veinlets and stringers; generally 0.5-1% pyrite locally up to 10%. Intervals 23.4-28.4 : 1-3% pyrite; 35.1-37.3 : 5-10% pyrite.  
Results: No significant assays.

CONCLUSIONS AND RECOMMENDATIONS

The drill program adequately examined the known gold occurrences and the selected geophysical anomalies on the property with one exception. A well-defined I.P./resistivity anomaly with coincident high magnetics on the northwest corner of Laird Lake was not drilled due to inaccessibility because of the poor lake ice conditions.

Two "economic" gold intersections were encountered in the drilling: 0.205 oz gold per ton across 1.5 meters in hole LL-89-9 and 0.245 oz gold per ton across 1.3 meters in hole LL-89-11.

A number of generally low grade and inconsistent gold-bearing zones were revealed by holes 7, 8, 9, 10, 16 and 18 in the area of lines 37+00W to 40+00W. Holes 16 and 18 were deep holes that were

drilled respectively under hole 9 and about 100 meters to the east along strike. The mineralization in the zones generally comprises quartz veinlets and stringers in altered and sheared mafic volcanics. The 0.205 oz gold per ton intersection in hole 9 generally correlates to a zone of .010 oz Au/ton/1.5 meters, .011 oz Au/ton/1.5 meters and .029 oz Au/ton/1.2 meters in Hole 18. Hole 16 did not intersect the zone. The "shaft occurrence" was not encountered in holes 9 or 16 but a zone of .030 oz Au/ton/1.7 meters and .019 oz Au/ton/1.0 meter in hole 7 may correlate with it.

The mineralization in the area of lines 37+00W to 40+00W has been adequately examined and appears to be too inconsistent to warrant further work. This does not rule out the possibility of better mineralization to the west along strike.

The 0.245 oz gold per ton intersection in hole 11 occurs in a pyritic, silicified granodiorite mylonite unit with narrow quartz veinlets and stringers in a much wider section of pyritic (up to 15%) mylonite. Holes 19 and 20, which were drilled respectively 100 meters along strike to the east and west, both intersected the pyritic zone but there were no associated gold values. The I.P. survey was not carried out to the east of this area due to the presence of Arrowhead Lake. The pyritic zone could continue to at least L8+00W where a weak I.P. anomaly was found to the east of the lake, approximately on strike with the known pyritic zone (L13W-15W).

A limited program of bulldozer trenching is recommended to expose the pyritic zone at 15 meter (50 foot) intervals along the trend in the L13+00W to L15+00W area and to the east and west if warranted. Access to the area is excellent and the overburden thickness in the three drill holes ranged from 1.6 to 2.8 meters (5 to 9 feet). The narrow trenches would be washed with a pump and the pyritic zones channel sampled with a portable diamond rock saw and a jackhammer. This should provide a good indication as to the persistence and extent of the gold mineralization.

An interpretation of a recent ground magnetometer survey over the 12 new claims (1057167-1057178) indicates that the favorable lithologic units and probably the deformation zone extend into this area. These new claims should be geologically mapped, prospected and rock sampled. An I.P./resistivity survey over the area would also be warranted.

An interpretation of the magnetometer survey over Laird Lake indicates that it is almost totally underlain by favorable mafic and ultramafic volcanic units. Linear magnetic highs probably represent magnetite or pyrrhotite-bearing iron formation horizons and/or magnetite-bearing komatiite flows. An I.P./resistivity survey on the lake ice during the winter would provide further information to evaluate this portion of the claim group.

No further drilling is recommended until the results of the preliminary work are evaluated.

A budget for the recommended exploration programs is outlined.

Summer Program

Mapping, prospecting, trenching, sampling and report writing.

Geological supervision:

Geologist: 90 days @ \$250/day	\$ 22,500
Geological Assistant: 75 days @ \$150/day	<u>11,250</u>
	33,750

Food: 150 man days @ \$25/day	3,750
-------------------------------	-------

Field equipment	2,500
-----------------	-------

Vehicle rental: 2.5 months @ \$1,250/month	3,125
--	-------

Vehicle operation and maintenance:

75 days @ \$25/day	1,875
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Bulldozer rental: 70 hours @ \$80/hr	5,600
--------------------------------------	-------

Equipment rental: pump and hose, rock saw, blades, jack hammer, generator	2,000
--	-------

Rock sample assays: 200 samples @ \$12/sample	2,400
---	-------

Miscellaneous: 10%	<u>5,500</u>
--------------------	--------------

TOTAL	\$ 60,500
	=====

Winter Program

I.P./resistivity survey over Laird Lake, over Arrowhead Lake south to the claim boundary and over a portion of the new claims.

I.P./Resistivity Survey: 30 line miles @ \$2,000/mile	\$ 60,000
--	-----------

Temporary picket grid on lakes: 15 line miles @ \$200/mile	<u>3,000</u>
---	--------------

TOTAL	\$ 63,000
	=====

Certificate of Qualification

I, Murray C. Rogers, of the City of Toronto, in the Province of Ontario, Canada, hereby certify:

1. That I am a geologist and have been engaged in my profession for approximately ten years.
2. That I am currently employed by Orex International Consulting and hold the position of Chief Geologist with both Orex and Black Cliff Mines Ltd. of Toronto.
3. That I am a graduate of the University of Calgary with a B.Sc. degree in Geology (1977) and of Queen's University with a M. Sc. degree in Geology (1982).
4. That I have no interest in Cyprus Gold (Canada) Ltd., either direct or indirect, nor do I expect to receive any interest, in the properties or securities of Cyprus.
5. That I hereby consent to the use of this report by Cyprus Gold (Canada) Ltd. for its corporate purposes.

Dated at Toronto, Ontario, this 28th day of April, 1989.

Murray C. Rogers  
Murray C. Rogers, M. Sc.

R E F E R E N C E S

Farkas, A., 1988, Report on Geological Mapping and the Sampling of Gold Occurrences, Laird Lake Property of Black Cliff Mines Limited, Internal Company Report, Black Cliff Mines Limited.

Willoughby, N.O., 1988, Report on the Geology and Mineralization of the Laird Lake Property of Tasu Resources Ltd., Internal Company Report, Black Cliff Mines Limited.

## **Appendix A**

**Diamond Drill Logs for Holes LL-89-1  
to LL-89-20 (excluding LL-89-17).**

## DIAMOND DRILL RECORD

## LAIRD LAKE PROPERTY

HOLE NO.: LL-89-1 LENGTH: 136.24 metres SYSTEM: Metric  
 LOCATION : Line 21+40W; 7+75S LOGGED BY: Murray C. Rogers  
 AZIMUTH: 160 degrees DIP: -50 degrees  
 DRILLED BY: N. Morissette CORE DIAMETER: BQ CASING: 6.71m  
 STARTED: February 22, 1989 FINISHED: February 25, 1989  
 ACID TEST: 60.96m -50 degrees  
 136.24m -46 degrees

---

FOOTAGE		DESCRIPTION
From	To	
0.0	5.85	OVERBURDEN
5.85	25.8	GRANODIORITE - MAFIC VOLCANIC HYBRID; 4c  Mixture of granodiorite intruding into mafic volcanic; dark grey-green to medium grey to pink to red; fine - medium grained (1-3mm), massive, hardness of 4-5, generally equigranular, variable composition: 5-20% quartz, 20-40% hornblende, 40-75% feldspar: K-spar/plag : 1/3 to 1/10; 0.5% disseminated pyrite but locally to 5%; local fracture fillings to pervasive development of hematite; local, irregular, silica-filled fractures. Type 4c unit.  10.1 - 10.9 Pervasive hematite development (likely secondary). 13.6 - 13.9 Pervasive hematite development; local silica-filled, irregular fractures to 1 cm widths. 16.8 - 19.5 Weak, pervasive hematite development. 19.5 - 25.8 Extensive fault - fracture zone: broken and fractured core; pervasive, strong hematite development; local, irregular, random, narrow (1-5 mm), silica-filled fractures.  Sharp contact

## 25.8 30.3 MAFIC VOLCANIC ROCK

Extensively fractured and silicified; medium grey, fine - grained ( $\leq 1$  mm), massive, pervasive silicification, extensive fracturing - generally irregular, random, 1-5 mm widths, silica - filled; gradational decrease in fracturing and alteration downhole.

Sharp contact

## 30.3 33.0 MAFIC VOLCANIC FLOW; 1a

Dark grey, fine - grained ( $\leq 1$  mm), massive, common silica - filled fractures, local patches of silicification.

Sharp contact

## 33.0 37.9 GRANODIORITE; BIOTITIC; 4a

Medium pinkish - grey, medium - grained (2-3 mm), massive, equigranular, 15 - 20% quartz, 10% biotite, 1-5% hornblende, 65-75% feldspar: plagioclase > Kspar, 0.5% disseminated pyrite. Type 4a.

Sharp contact

## 37.9 45.6 MAFIC VOLCANIC FLOW; 1a

Medium grey, fine-grained ( $\leq 1$  mm), massive, H=3-4, composed of plagioclase and mafic constituents, local minor fracturing. Type 1a.

43.7 - 46.4 Fault zone - extensive fracturing and breaking of core; local hematite development.

Sharp contact

## 45.6 53.95 GABBRO PORPHYRY

Dark green, pyroxene phenocrysts (2-5mm) in a finer-grained (1-2mm) groundmass, massive, H=4, porphyritic; 20-40% pyroxene phenocrysts, groundmass about 50/50: plagioclase/pyroxene, 0.5% disseminated pyrite but locally to 3%, rare molybdenite; local random, irregular, narrow (1-2mm), silica-filled fractures. Type 2d.

Sharp contact

53.95 56.95 MAFIC VOLCANIC; 1a

Same as Type; local silicification 56.4 - 56.7

Sharp contact

56.95 58.95 GRANODIORITE; PROTOMYLONITE; 4a

Relict texture present locally, relict quartz eyes, weak foliation locally at 35 - 40 degrees to the core axis, 0.5-1% disseminated pyrite. Type.

Sharp contact

58.95 73.25 MAFIC VOLCANIC; PROTOMYLONITE - MYLONITE; 1am

Local foliation at 40 - 45 degrees to the core axis, narrow (1-3mm), local alteration - silica, biotite, pyrite; minor, silica-filled fractures. Type 1am.

59.85 - 60.3 Local intense silicification  
60.3 - 62.4 Biotite (5-30%) and pyrite (1-3%)  
alteration, weak foliation at 45 degrees to the core axis.

62.4 - 68.7 Moderate to strong, pervasive silicification, average 0.5-1% disseminated pyrite-locally to 3%, foliation developed a 40-45 degrees to the core axis.

68.7 - 69.2 Weak biotite (5%) and pyrite (0.5-1%)  
69.2 - 69.35 Intense buff silicification; possible granodiorite ultramylonite.

69.35 - 70.2 Biotite alteration (5-25%); 0.5-1% pyrite.

70.2 - 70.7 Pervasive buff silicification; 0.5% pyrite; possible granodiorite ultramylonite.

70.7 - 72.0 Biotite (5-30%) and pyrite (0.5-3%)  
alteration; foliation at 40-45 degrees to the core axis.

72.0 - 72.2 Moderate to strong silica alteration.  
72.2 - 73.25 Biotite (5-20%) alteration with  
pyrite (0.5-2%)

Sharp contact

Assay \*\*\* SAMPLE NUMBER: 1026 // 70.9 - 72.0m // 0.011 oz Au/ton

73.25 74.25 GRANODIORITE; PROTOMYLONITE; 4am

Similar to Type.

Sharp contact

74.25 100.0 MAFIC VOLCANIC; PROTOMYLONITE - MYLONITE; 1am

Similar to Type; foliation at 40-45 degrees to the core axis.

74.25 - 74.7 Moderate-strong silica alteration.

74.7 - 76.5 Biotite (5-25%) alteration with pyrite (0.5-2%).

76.5 - 76.95 Moderate-strong silica alteration with 0.5-3% pyrite.

76.95 - 78.0 Biotite (5-15%) alteration with 0.5-2% pyrite.

78.0 - 91.4 Moderate-strong, pervasive silica alteration, 0.5-1% pyrite, trace chalcopyrite locally, silica-filled fractures, local narrow sections of biotite alteration.

78.95 - 79.0 Grey quartz vein parallel to foliation.

91.4 - 91.9 30% biotite alteration; 0.5-1% pyrite

91.9 - 100.0 Moderate-strong, pervasive silica alteration; 0.5-1% pyrite, local silica-filled fractures and narrow biotite alteration sections; decrease in alteration and deformation towards downhole contact.

Sharp contact

100.0 101.7 GRANODIORITE; BIOTITIC; 4a

Very similar to Type (33.0 - 37.9); weak alignment of grains.

Sharp contact

101.7 104.45 DIORITE; 2c

Dark grey, medium-grained (2-3mm), massive, equigranular, 5-15% quartz, 40-50% plagioclase, 20-25% biotite, 20-25% pyroxene, trace-0.5% disseminated pyrite. Type.

Sharp contact

104.45 106.2 GRANODIORITE; BIOTITIC; 4a

Similar to Type, locally contaminated by diorite.

105.5 - 105.7 Strong, pervasive buff silicification; 2% pyrite.

Sharp contact

106.2 110.55 DIORITE; 2c

Same as Type; locally contaminated by granodiorite.

Sharp contact

110.55 115.8 MAFIC VOLCANIC; PROTOMYLONITE - MYLONITE; 1am

Similar to type, tight foliation at 45-50 degrees to the core axis, minor silica-filled fractures.

110.55 - 115.8 Weak to strong, pervasive, silica alteration; 0.5-5% disseminated pyrite.

113.3 - 113.6 Totally silicified, 3-5% disseminated pyrite.

Gradational contact

115.8 133.3 MAFIC VOLCANIC; 1a-1am

Relatively undeformed to protomylonite, weak foliation locally at 45-50 degrees to the core axis, common biotite alteration (5-25%), 0.5-2% disseminated pyrite, minor silica-filled fractures, local silicification.

125.2 - 126.3 Moderate - intense silica alteration, 0.5-2% pyrite.

127.0 - 127.3 Moderate silicification, 1-3% pyrite.

128.2 - 128.3 Strong silica alteration; tight foliation at 45 degrees to the core axis.

128.8 - 128.95 5% pyrite

128.95 - 129.05 5% pyrite

131.45 - 131.75 Chert-exhalite; banded at 45 degrees to the core axis, 0.5-1% disseminated pyrite.

Sharp contact

133.3 134.2 GRANODIORITE; BIOTITIC; 4a

Similar to Type; weak grain alignment

Sharp contact

134.2 136.24 MAFIC VOLCANIC; 1a

Relatively undeformed; similar to Type; local minor fracturing-irregular, random, narrow ( $\leq 2\text{mm}$ ), silica-filled, weak to moderate silicification locally, 0.5% disseminated pyrite, local granodiorite contamination.

136.24 136.24 END OF HOLE

**LAIRD LAKE DIAMOND DRILL PROGRAM 1989**

**DIAMOND DRILL HOLE LL-89-1**

**Location: Line 21+40 West; 7+75 South**

<b>SAMPLE NUMBER</b>	<b>FROM(m)</b>	<b>TO(m)</b>	<b>INTERVAL(m)</b>	<b>ASSAY(oz/ton)</b>
1001	10.1	11.1	1.0	<0.001
1002	12.5	14.0	1.5	<0.001
1003	19.0	20.5	1.5	0.001
1004	20.5	22.0	1.5	<0.001
1005	22.0	23.5	1.5	<0.001
1006	23.5	25.0	1.5	<0.001
1007	25.0	25.8	0.8	<0.001
1008	25.8	26.5	0.7	<0.001
1009	26.5	28.0	1.5	<0.001
1010	28.0	29.5	1.5	<0.001 check
1011	29.5	31.0	1.5	<0.001
1012	31.0	32.5	1.5	<0.001
1013	43.7	45.2	1.5	<0.001
1014	45.2	46.5	1.3	0.001
1015	52.0	53.5	1.5	0.001
1016	56.9	58.9	2.0	0.002
1017	58.9	59.9	1.0	<0.001
1018	59.9	61.4	1.5	<0.001
1019	61.4	62.9	1.5	<0.001 check
1020	62.9	64.4	1.5	<0.001
1021	64.4	65.9	1.5	<0.001
1022	65.9	67.4	1.5	<0.001
1023	67.4	68.9	1.5	0.001
1024	68.9	70.2	1.3	<0.001
1025	70.2	70.9	0.7	0.001
1026	70.9	72.0	1.1	0.011
1027	72.0	73.25	1.25	0.001
1028	73.25	74.25	1.0	<0.001 check
1029	74.25	75.3	1.05	0.005
1030	75.3	76.8	1.5	0.001
1031	76.8	78.3	1.5	<0.001
1032	78.3	79.8	1.5	<0.001
1033	79.8	81.3	1.5	<0.001
1034	81.3	82.8	1.5	0.001
1035	82.8	84.3	1.5	0.001
1036	84.3	85.8	1.5	<0.001
1037	85.8	87.3	1.5	0.001 check
1038	87.3	88.8	1.5	0.001
1039	88.8	90.3	1.5	0.001
1040	90.3	91.8	1.5	0.001
1041	91.8	93.3	1.5	<0.001

1042	93.3	94.8	1.5	<0.001
1043	94.8	96.3	1.5	0.001
1044	96.3	97.8	1.5	0.001
1045	97.8	99.3	1.5	<0.001
1046	99.3	100.0	0.7	<0.001 check
1047	105.3	105.8	0.5	<0.001
1048	110.55	112.05	1.5	0.001
1049	112.05	113.55	1.5	0.001
1050	113.55	115.0	1.45	0.001
1051	115.0	116.5	1.5	0.001
1052	116.5	118.0	1.5	0.001
1053	118.0	119.5	1.5	<0.001
1054	119.5	121.0	1.5	0.001
1055	121.0	122.5	1.5	0.002
1055	121.0	122.5	1.5	0.001 check
1056	122.5	124.0	1.5	<0.001
1057	124.0	125.2	1.2	<0.001
1058	125.2	126.3	1.1	<0.001
1059	126.3	127.8	1.5	<0.001
1060	127.8	129.3	1.5	<0.001
1061	129.3	130.8	1.5	<0.001
1062	130.8	132.3	1.5	<0.001
1063	132.3	133.25	0.95	<0.001
1064	134.8	135.4	0.6	<0.001 check

## **DIAMOND DRILL RECORD**

## LAIRD LAKE PROJECT

HOLE NUMBER: LL-89-2 LOCATION: Line 22+70W; 7+70S  
AZIMUTH: 330 degrees DIP: -50 degrees LENGTH: 136.85m  
DRILLED BY: N. Morissette CORE DIAMETER: BQ CASING: 6.7m  
STARTED: February 25, 1989 FINISHED: February 27, 1989  
LOGGED BY: Murray C. Rogers SYSTEM: Metric  
ACID TESTS: 60.96m -48 degrees  
136.85m -48 degrees

FOOTAGE		DESCRIPTION
From	To	
0.0	6.70	OVERBURDEN
6.70	7.70	MAFIC VOLCANIC FLOW; 1a  Dark grey, fine-grained (<1mm), massive, H=3-4, featureless, constituents, plagioclase and mafics, <0.5% pyrite, locally chloritic, common calcite-filled fractures-irregular, random, narrow (<1-3mm). Type 1a.  Relatively sharp contact (over a few cm).
7.70	9.85	GRANODIORITE - DIORITE; 4c  Granodiorite - mafic volcanic mixed hybrid; dark pinkish-grey, fine-medium grained (1-3), massive, generally equigranular, variable composition: 5-15% quartz, 25-50% hornblende, 35-70% feldspar: plagioclase > K-feldspar, minor fracturing. Type 4c  Relatively sharp contact (over a few cm).
9.85	15.1	MAFIC VOLCANIC FLOW; 1a  Same as Type; small (cm), irregular areas of silicification associated with fractures, minor epidote locally.

		14.8 - 15.1 Foliation developed at 40 degrees to the core axis near the downhole contact, biotite alteration (5-15%).
		Sharp contact
15.1	15.85	LEUCOGRANODIORITE; 4b
		Light pink, fine-medium grained (1-2mm), massive, equigranular, H=5, 15% quartz, 2-5% hornblende and biotite, 80% feldspar: plagioclase > Kspar, 1% disseminated pyrite, local quartz-filled fractures-irregular, random, 1-10mm widths. Type 4b.
		Sharp contact
15.85	17.6	MAFIC VOLCANIC FLOW; 1a
		Similar to Type; local sections with granodiorite material.
		Sharp contact
17.6	18.3	GRANODIORITE - DIORITE; 4c; HYBRID
		Similar to Type except finer grained (1-2mm).
		Relatively sharp contact
18.3	18.85	MAFIC VOLCANIC FLOW; 1a
		Similar to Type; 25% biotite alteration.
		Sharp contact
18.85	28.9	GRANODIORITE - DIORITE; 4c; HYBRID
		Same as Type except finer-grained (1-2mm); highly variable between granodiorite and mafic volcanic end members, common silica-filled fractures in more mafic portions-irregular, random and narrow (1-5mm).
		24.1 - 26.0 High mafic volcanic content with abundant fracturing.
		Gradational contact
28.9	31.55	MAFIC VOLCANIC FLOW; 1a
		Similar to Type; local granodiorite contamination, local biotite alteration (5-15%).

Gradational contact

31.55 36.0 GRANODIORITE - DIORITE; 4c; GRANODIORITE-MAFIC VOLCANIC HYBRID  
similar to 18.85 - 28.9, abundant biotite locally.  
31.8 - 31.95 Clay bleached; 1% disseminated pyrite.

Gradational contact

36.0 37.3 MAFIC VOLCANIC FLOW; 1a  
similar to Type; local silica or calcite-filled fractures - irregular, random, narrow (1-5mm), 0.5% pyrite.

Relatively sharp contact

37.3 38.4 INTERFLOW SILICEOUS SEDIMENT - EXHALITE; 1e  
Medium-dark grey, aphanitic-fine grained (<1mm), banding (1-5mm) at 60-65 degrees to the core axis, clay to silica content, 3-5% pyrite - pyrrhotite as disseminations, blebs and stringers.

Relatively sharp contact

ASSAY \*\*\* SAMPLE NUMBER: 1073 // 37.0 - 38.5m // 0.011 oz Au/ton

38.4 50.1 MAFIC VOLCANIC FLOW; 1a  
Same as 36.0 - 37.3, biotite alteration near downhole intrusive contact.  
44.4 - 44.7 Moderate-strong silicification.

Relatively sharp contact.

50.1 55.25 GRANODIORITE - DIORITE; 4c; GRANODIORITE - MAFIC HYBRID  
Same as 31.55 - 36.0; minor silica-filled fractures; local talc-filled fractures sub-parallel to the core axis.

Relatively sharp contact

55.25 68.70

MAFIC VOLCANIC FLOW; 1a

Similar to Type; local areas of granodiorite contamination, local areas of silicification.

57.55 - 57.8 Pervasive, fracture-controlled silicification, weak orientation at 50 degrees to the core axis, 2-5% pyrite as disseminated, blebs and stringers parallel to fracture orientation.

58.3 - 58.9 Local, narrow (1-5cm) sections of weak-moderate silicification with 1-3% pyrite.

59.1 - 59.4 Extensive, moderate silica alteration, local almandine garnet development to 5%.

61.4 - 62.7 Minor granodiorite contamination, biotite alteration up to 25%.

62.7 - 65.8 Common, fracture-controlled silica alteration at about 50 degrees to the core axis, 1-2%, pyrite-pyrrhotite as disseminations, blebs and stringers.

65.5 - 65.7 Banded white and green quartz at 50 degrees to the core axis.

Sharp contact

68.7 70.0

LEUCOGRANODIORITE; 4b

Similar to Type; mafic volcanic inclusions.

Sharp contact

70.0 83.2

MAFIC VOLCANIC FLOW; 1a

Same as Type; local granodiorite contamination, local biotite alteration 5-25%, local narrow zones of silicification.

72.9 - 74.8 Biotite alteration 10-25%, weak banding at 50 degrees to the core axis.

74.8 - 75.15 4c hybrid, granodiorite-mafic volcanic unit.

77.1 - 77.3 Extensive silica alteration

79.8 - 79.9 Extensive silicification, 10% pyrrhotite as blebs.

79.95 - 80.6 1e; Local fracture-controlled silicification, 3-10% pyrrhotite as disseminations and blebs, high magnetite content; weak exhalative iron formation.

81.25 - 81.4 1e; Garniferous, magnetite-rich unit banded at 45 degrees to the core axis; Fe-rich interflow sediment.

81.4 - 83.2 Weakly banded at 60 degrees to

- the core axis, 1-2% disseminated pyrite, increase in biotite content up to 20% near downhole contact.
- Sharp contact
- 83.2      84.2      GRANODIORITE; BIOTITIC; 4a
- Medium pinkish-grey, fine-grained (1-2mm) weak grain alignment, H=5, 10-15% quartz, 20% mafics: biotite > hornblende, 65-70% feldspar : plagioclase > Kspar, 0.5-1% disseminated pyrite. Type 4a
- Relatively sharp contact
- 84.2      84.8      MAFIC VOLCANIC FLOW; 1a
- Similar to 70.0 - 83.2, 1-2% pyrite, pyrrhotite, disseminated, up to 20% biotite near intrusive contacts.
- Relatively sharp contact
- 84.8      91.9      GRANODIORITE - DIORITE; 4c; GRANODIORITE - MAFIC VOLCANIC HYBRID
- Similar to Type; highly variable grain size (1-3mm) and composition between end members, weak grain alignment locally.  
 86.3 - 87.35 Variable pinkish colouration; potassic (Kspar) alteration(?).  
 89.0 - 90.2 Narrow intervals of mafic volcanic; biotitic (10-30%), 1% disseminated pyrite, significant magnetite content.
- Sharp contact
- 91.9      92.4      MAFIC VOLCANIC FLOW; 1a
- Similar to Type; local granodiorite contamination, biotite alteration (5-15%)
- Sharp contact
- 92.4      95.5      MAFIC VOLCANIC TUFF; 1c
- Medium grey, fine-grained (<1mm), massive, about 50/50 plagioclase / mafics, 10-20% biotite, 0.5-1% disseminated pyrite.
- 94.5 - 94.7 Gabbro, pyroxene porphyry dyke, sharp contacts.

Sharp contact

95.5      96.1      BASALT FLOW; 1a  
Similar to Type; dark grey, fine grained (<1mm), massive, greater mafic content, significant magnetite, 0.5-1% pyrite.  
Type basalt flow 1a.

Sharp contact

96.1      99.3      GRANODIORITE - DIORITE; 4c; HYBRID  
Similar to Type

Sharp contact

99.3      136.85      BASALT FLOW; 1a  
Similar to Type; common silica-filled fractures-irregular, random, narrow (1-5mm), local magnetite, sulfide content - 1-2% pyrite-pyrrhotite locally to 10%, local granodiorite contamination, local enrichment in biotite.  
100.9 - 101.3 5-10% pyrite-pyrrhotite  
103.7 - 104.3 2-5% pyrite-pyrrhotite  
108.1 - 108.3 10% pyrite-pyrrhotite  
110.8 - 112.0 1e, Exhalitive pyrrhotite-pyrite banded at 60 degrees to the core axis, 5-15% as disseminations, blebs and stringers.  
114.3 - 116.4 Common, extensive silica-filled fractures.  
128.35 - 128.8 Banded siliceous sediment - exhalite, 1e; 10-15% pyrrhotite, garniferous, narrow banding (1-5mm) at 60-65 degrees to the core axis.  
128.9 - 130.2 Common, irregular, silica-filled fractures.  
132.0 - 132.9 Massive, grey to buff-orange quartz, extensive silica-filled fracturing.

136.85      136.85      END OF HOLE

## DIAMOND DRILL HOLE LL-89-2

Location: Line 22+70 West; 7+70 South

<u>SAMPLE NUMBER</u>	<u>FROM(m)</u>	<u>TO(m)</u>	<u>INTERVAL(m)</u>	<u>ASSAY(oz/ton)</u>
1065	9.85	11.35	1.5	<0.001
1066	14.0	15.1	1.1	<0.001
1067	15.1	15.85	0.75	<0.001
1068	18.3	18.85	0.55	<0.001
1069	18.85	20.35	1.5	<0.001
1070	24.1	25.6	1.5	<0.001
1071	28.9	30.4	1.5	<0.001
1072	30.4	31.9	1.5	<0.001
1073	37.0	38.5	1.5	0.008
1073	37.0	38.5	1.5	0.011 check
1074	43.6	45.1	1.5	<0.001
1075	48.6	50.1	1.5	<0.001
1075	48.6	50.1	1.5	0.001 check
1076	57.5	59.0	1.5	0.001
1077	59.0	60.5	1.5	<0.001
1078	61.4	62.9	1.5	0.009
1079	62.9	64.4	1.5	0.001
1080	64.4	65.9	1.5	<0.001
1081	73.3	74.8	1.5	<0.001
1082	77.1	77.6	0.5	0.001
1083	79.0	80.0	1.0	<0.001
1084	80.0	81.5	1.5	0.003
1085	81.5	82.5	1.0	<0.001 check
1086	82.5	83.2	0.7	<0.001
1087	84.1	85.6	1.5	<0.001
1088	85.85	87.35	1.5	0.001
1089	89.0	90.5	1.5	<0.001
1090	99.3	100.8	1.5	0.001
1091	100.8	102.3	1.5	0.003
1092	103.6	104.6	1.0	0.001
1093	107.6	108.6	1.0	0.002
1094	110.6	112.1	1.5	0.007
1094	110.6	112.1	1.5	0.009 check
1095	114.3	115.8	1.5	0.001
1096	115.8	117.3	1.5	0.001
1097	121.0	122.5	1.5	<0.001
1098	128.3	129.8	1.5	0.002
1099	129.8	131.3	1.5	<0.001
1100	131.3	132.0	0.7	0.001
1101	132.0	132.9	0.9	0.001

## DIAMOND DRILL RECORD

## LAIRD LAKE PROJECT

HOLE NUMBER: LL-89-3 LOCATION: Line 24+00W; 8+05S

AZIMUTH: 340 degrees DIP: -45 degrees LENGTH: 167.3m

DRILLED BY: N. Morissette CORE DIAMETER: BQ CASING: 3.2m

STARTED: February 28, 1989 FINISHED: March 2, 1989

LOGGED BY: Murray C. Rogers SYSTEM: Metric

ACID TESTS: 60.96m -42.5 degrees  
 121.91m -41.5 degrees  
 167.33m -44.0 degrees

FOOTAGE		DESCRIPTION
From	To	
0.0	3.2	OVERBURDEN
3.2	4.05	GABBRO; 2a  Dark grey-black, medium-grained (2-3mm), massive, equigranular, 30-40% plagioclase, 60-70% pyroxene, 1% disseminated pyrite, locally to 2-3%, minor magnetite, rare silica-filled fractures-irregular to straight, random, narrow (1-3mm). Type 2a  Sharp contact
4.05	5.5	BASALT FLOW; 1a  Dark grey-black, fine grained (<1mm), massive, featureless, constituents: plagioclase and pyroxene, pyroxene > plagioclase, 0.5% disseminated pyrite, common silica-filled fractures-irregular, random and narrow (1-3mm). Type 1a  Sharp contact

5.5      15.2      GABBRO; 2a  
Similar to Type; fine-medium grained (1-3mm); 40-50% plagioclase, 50-60% pyroxene, 0.5-1% disseminated pyrite.  
7.6 - 8.5 Local hematite stained sections.  
Sharp contact

15.2      20.75      BASALT FLOW; 1a  
Same as Type; local silica + calcite alteration sections.  
16.2 - 16.6 Extensive silicification plus minor calcite developed at 45 degrees to the core axis, 1-2% disseminated pyrite.  
18.6 - 18.8 Same as 16.2 - 16.6; 1% pyrite  
18.8 - 19.1 Common (50%) silicification developed at 45 degrees to the core axis, 1% pyrite.  
19.1 - 20.75 Common silica-filled fractures random to 45 degrees to the core axis, 1% pyrite.  
20.6 - 20.75 50% silica developed at 45 degrees to the core axis, 1% disseminated pyrite.  
Sharp contact

20.75      23.6      GABBRO; 2a  
Similar to 5.5-15.2; 0.5-1% pyrite.  
Sharp contact

23.6      56.5      BASALT FLOW; 1a-lam  
Relatively undeformed-protomylonite; local areas of fracture-foliation controlled silicification (+ calcite); 0.5-1% pyrite; rare amygdules; zones of biotite alteration.  
24.0 - 24.6 Common (20-50%) fracture-foliation controlled silicification developed at 45 degrees to the core axis, 0.5-1% pyrite; 1am.  
24.8 - 25.1 Massive silicification (sil.) with minor calcite.  
25.1 - 25.8 Weak - moderate pervasive fracture-controlled silica.

25.8 - 32.6 Biotite alteration (5-30%) developed as <1-5mm foliation bands at 40-60% to the core axis, common silica filled fractures. 1am

33.4 - 33.7 Biotite alteration (25%)

35.7 - 36.0 50% fracture-controlled silica.

36.0 - 36.9 Weak, pervasive silica.

38.1 - 38.7 Biotite alteration (5-40%) developed as foliation bands at about 50 degrees to the core axis, 1am.

38.7 - 40.2 Common (10-40%) fracture-controlled silica.

44.1 - 48.6 Banded (<1-5mm) biotite alteration (5-30%), at 50 degrees to the core axis; common fracture-foliation controlled silica. 1am

53.7 - 56.5 Extensive fracture-controlled, generally random silica; local banded biotite alteration at 50 degrees to the core axis, 1am

Sharp contact

56.5 57.9 GABBRO; 2a

Similar to Type; 0.5% pyrite

Sharp contact

57.9 66.4 BASALT FLOW; 1a

Undeformed to protomylonite; 1a-1am; similar to 23.6 - 56.5; 0.5-1% pyrite.

57.9 - 59.5 Extensive fracture-foliation controlled silica; local biotite alteration (5-40%) as bands (<1-5mm) at 50 degrees to the core axis. 1am.

60.1 - 66.0 Biotite alteration (5-30%) as bands at 50 degrees to the core axis; common silica-filled fractures. 1am.

64.6 - 66.0 Extensive silica-filled fractures, 5-50% random. 1am

Sharp contact

66.4 68.85 GABBRO; 2a

Similar to Type; 50-60% pyroxene 40-50% plagioclase

Sharp contact

68.85 83.15

## MAFIC VOLCANIC FLOW; 1a

Similar to Type; common silica-filled fractures-generally irregular, random and narrow (1-10mm), local granodiorite lenses, local minor biotite ( to 10% ), 0.5% disseminated pyrite; local cream-light green carbonate along fractures.

68.85 - 83.15 Common to extensive silica-filled fractures with local *in situ* breccia.

79.25 - 79.3 Pink-orange quartz vein at 45 degrees to the core axis.

83.0 - 83.15 Cream-pale green carbonate vein

Sharp contact

83.15 83.7

## BASALT LAPILLI TUFF; 1b

Dark grey-black, medium grained (1-4mm), relatively massive, angular tuff fragments in a finer-grained matrix; plagioclase and pyroxene; pyroxene > plagioclase.

Sharp contact

83.7 88.6

## BASALT FLOW; 1a-1am

Relatively undeformed-protomylonite; similar to 23.6 - 56.5; common silica-filled fractures - irregular, random to foliation parallel and narrow (1-10mm), local biotite alteration (5-25%) as bands at 50 degrees to the core axis; 0.5-1% pyrite.

85.2 - 88.6 Protomylonite; well defined foliation (<1-2 widths) at 50 degrees to the core axis; biotite alteration (5-25%) as bands parallel to foliation, common local foliation parallel silica.

Sharp contact

88.6 91.7

## MAFIC VOLCANIC TUFF; 1c

Medium-dark grey, fine grained (1-2mm), massive, plagioclase and pyroxene about 50/50%; minor silica-filled fractures, 0.5% pyrite.

Gradational contact

91.7 115.8

## MAFIC VOLCANIC FLOW; 1a

Similar to Type; common, minor silica-filled fractures occasional, narrow, foliated talcose sections, occasional, narrow gabbroic dykes.

97.2 - 98.3 Recrystallized hornblende-rich section - weak foliation at 50-60 degrees to the core axis.

102.1 - 104.5 Pervasive, fracture-controlled calcite alteration; dominant fracture pattern at 60-65 degrees to the core axis.

105.85 - 106.6 Moderate-strong, pervasive silica, 1% pyrite.

107.3 - 109.8 Moderate, pervasive silica, 1% pyrite.

110.2 - 112.0 Moderate-strong, pervasive silica, 1% pyrite.

112.0 - 113.1 Pervasive calcite-(talc) alteration.

113.1 - 114.1 Gabbroic dyke or coarse mafic flow.

114.1 - 114.95 Pervasive calcite-(talc) alteration.

114.95 - 115.4 Gabbroic dyke or coarse flow.

115.4 - 115.8 Pervasive calcite-(talc) alteration.

Sharp contact

115.8 117.1

## MAFIC VOLCANIC FLOW; 1a

Coarser grained (1mm), 1% disseminated pyrite

Sharp contact

117.1 117.7

## MAFIC VOLCANIC FLOW; 1a

Similar to 91.7 - 115.8; Pervasive calcite-(talc) alteration.

Gradational contact

117.7 118.8

## COARSE MAFIC VOLCANIC FLOW; 1a

Fine-grained (1mm), 0.5-1% pyrite

Sharp contact

118.8 167.3

## BASALT FLOW; 1a

Similar to Type; common sections of talc-(calcite) alteration, 0.5-1% disseminated pyrite - pyrrhotite, lineation developed on some fracture surfaces; local silica alteration, pyrrhotite smeared out along some fracture surfaces, extensive chloritization in some sections.

122.35 - 123.3 Moderate-strong, pervasive silica alteration.

131.85 - 132.0 5-10% pyrrhotite as blebs and stringers, extensive fracture-controlled silica.

138.7 - 139.5 2-3% pyrrhotite as disseminated and stringer.

141.95 - 142.0 Quartz vein at 45 degrees to the core axis.

148.6 - 151.5 2-5% pyrrhotite as disseminated, blebs and stringers; weak biotite alteration (5%).

153.0 - 154.1 Pervasive chlorite-talc alteration.

155.2 - 155.8 Weak biotite alteration (5-10%) as poorly defined bands at 60 degrees to the core axis.

167.3 167.3

END OF HOLE

## DIAMOND DRILL HOLE LL-89-3

Location: Line 24 West; 8+05 South

<u>SAMPLE NUMBER</u>	<u>FROM(m)</u>	<u>TO(m)</u>	<u>INTERVAL(m)</u>	<u>ASSAY(oz/ton)</u>
1102	5.5	7.0	1.5	<0.001
1103	11.3	12.8	1.5	<0.001 check
1104	16.0	17.5	1.5	<0.001
1105	17.5	19.0	1.5	<0.001
1106	19.0	20.0	1.0	<0.001
1107	20.0	20.8	0.8	<0.001
1108	23.9	25.4	1.5	0.001
1109	25.4	26.5	1.1	0.003
1110	26.5	28.0	1.5	0.001
1111	28.0	29.5	1.5	0.001
1112	29.5	31.0	1.5	0.001 check
1113	31.0	32.5	1.5	<0.001
1114	32.5	34.0	1.5	<0.001
1115	34.0	35.5	1.5	<0.001
1116	35.5	37.0	1.5	<0.001
1117	37.0	38.5	1.5	<0.001
1118	38.5	40.0	1.5	0.001
1119	40.0	41.5	1.5	<0.001
1120	41.5	43.0	1.5	<0.001
1121	43.0	44.3	1.3	<0.001 check
1122	44.3	45.8	1.5	<0.001
1123	45.8	47.3	1.5	<0.001
1124	47.3	48.8	1.5	0.001
1125	53.7	55.2	1.5	<0.001
1126	55.2	56.5	1.3	<0.001
1127	57.7	59.4	1.7	0.001
1128	59.4	60.9	1.5	<0.001
1129	60.9	62.4	1.5	0.001
1130	62.4	63.9	1.5	0.001 check
1131	63.9	65.4	1.5	0.001
1132	65.4	66.4	1.0	0.003
1133	69.3	70.8	1.5	<0.001
1134	77.4	78.9	1.5	<0.001
1135	78.9	80.4	1.5	<0.001
1136	80.4	81.9	1.5	<0.001
1137	81.9	83.15	1.25	<0.001
1138	85.1	86.5	1.4	0.001
1139	86.5	88.0	1.5	0.001 check
1140	88.0	89.0	1.0	<0.001
1141	97.3	98.8	1.5	<0.001
1142	101.8	103.3	1.5	<0.001
1143	103.3	104.8	1.5	<0.001
1144	105.95	107.3	1.35	<0.001
1145	107.3	108.8	1.5	<0.001
1146	108.8	110.3	1.5	<0.001
1147	110.3	112.0	1.7	<0.001
1148	112.0	112.6	0.6	<0.001 check

1149	112.6	113.1	0.5	0.001
1150	114.1	115.1	1.0	<0.001
1151	117.05	118.1	1.05	<0.001
1152	118.8	120.3	1.5	<0.001
1153	122.35	123.35	1.0	0.001
1154	124.0	125.5	1.5	0.002
1155	129.5	130.5	1.0	<0.001
1156	131.0	131.7	0.7	<0.001
1157	131.7	132.7	1.0	<0.001
1157	131.7	132.7	1.0	0.001 check
1158	138.5	139.8	1.3	0.001
1159	141.3	142.3	1.0	<0.001
1160	148.2	149.7	1.5	0.003
1161	149.7	151.2	1.5	0.001
1162	151.2	152.2	1.0	<0.001
1163	153.0	154.5	1.5	<0.001
1164	155.0	155.8	0.8	0.001
1165	162.2	163.7	1.5	<0.001 check

**DIAMOND DRILL RECORD****LAIRD LAKE PROJECT**

HOLE NUMBER: LL-89-4 LOCATION: Line 24+00W; 11+25S

AZIMUTH: 180 degrees DIP: -50 degrees LENGTH: 154.53m

DRILLED BY: N. Morissette CORE DIAMETER: BQ CASING: 4.9m

STARTED: March 3, 1989 FINISHED: March 5, 1989

LOGGED BY: Murray C. Rogers SYSTEM: Metric

ACID TESTS:	60.96m	-47 degrees
	121.91m	-41 degrees
	154.53m	-42 degrees

FOOTAGE		DESCRIPTION
From	To	
0.0	4.9	OVERBURDEN
4.9	12.0	GRANODIORITE; PROTOMYLONITE; 4a  Medium pinkish-grey, medium-grained (2-4mm) well developed, tight (<1-2mm) foliation at 45 degrees to the core axis, strongly aligned grains, 10-20% quartz, 5-25% hornblende and biotite, 55-85% feldspar: plagioclase > K-feldspar, 0.5% disseminated pyrite and locally to 2% as stringers parallel to the foliation, relatively intact quartz grains, local pervasive silicification and silica-filled fractures-irregular, random and narrow (<1-3mm). Type 4am.  10.5 - 12.0 Strong (60-100%) pervasive silicification.  Relatively sharp contact
12.0	14.3	MAFIC VOLCANIC FLOW (?); MYLONITE; 1am  Dark grey, fine grained (<1mm), strongly developed, tight (< 1mm) foliation at 45 degrees to the core axis; original texture totally destroyed, feldspar/mafics: 35/65, occasional foliation controlled silicification, local biotite alteration (5-

- 15%) developed as foliation bands, local contamination from gabbro feldspar porphyry. Type 1am.
- Gradational contact over several centimetres.
- 14.3      17.4      GABBRO; FELDSPAR PORPHYRY; PROTOMYLONITE; 2bm  
 Dark grey, coarse grained (2-5mm) anhedral-subhedral plagioclase phenocrysts in a fine grained (<1mm) groundmass, tight ( $\leq$ 1mm) foliation developed at 45 degrees to the core axis, plagioclase phenocrysts (2-10%) in a groundmass of plagioclase and pyroxene, plagioclase/pyroxene: 40/60,  $\leq$ 0.5% disseminated pyrite, occasional, minor silica-filled fractures, local biotite alteration to 10%. Type 2bm.
- Sharp contact
- 17.4      18.0      MAFIC VOLCANIC FLOW; PROTOMYLONITE; 1am  
 Similar to Type; weakly developed foliation.
- Sharp contact
- 18.0      28.8      GABBRO; FELDSPAR PORPHYRY; PROTOMYLONITE; 2bm  
 Same as Type; foliation less well developed, common biotite alteration (to 15%) along foliation planes.
- Sharp contact
- 28.8      32.65     GRANODIORITE; PROTOMYLONITE; 4am  
 Same as Type; foliation at 45 degrees to the core axis, original texture still apparent, common, dark grey, relict quartz eyes, 0.5-1% pyrite as disseminated and stringers.
- Sharp contact
- 32.65     43.9      GABBRO; FELDSPAR PORPHYRY; UNDEFORMED - PROTOMYLONITE; 2b - 2bm  
 Similar to 18.0 - 28.8, weakly developed foliation, local biotite alteration to 15%,  $\leq$ 0.5% pyrite.
- Sharp contact

- 43.9      47.7      GRANODIORITE; BIOTITIC; 4a  
Medium pinkish-grey, massive, fine-medium grained (1-2mm), equigranular, 15-20% quartz, 10% biotite, 70-75% feldspar: plagioclase > K-feldspar,  $\leq$  0.5% pyrite.  
Sharp contact
- 47.7      69.1      GABBRO; FELDSPAR PORPHYRY; WEAKLY DEFORMED - PROTOMYLONITE; 2bm  
Similar to Type; weak but distinct, tight ( $\leq$  1-2mm) foliation at 45 degrees to the core axis, biotite alteration (5-50%) developed parallel to foliation,  $\leq$  0.5% pyrite. Late intrusive.  
47.7 - 50.4 20-50% biotite alteration  
50.4 - 69.1 5-30% biotite alteration  
Sharp contact
- 69.1      72.4      FELSIC MYLONITE; 6  
Medium pink-tan, aphanitic, well developed banding-foliation at 45-60 degrees to the core axis, consisting of alternating light and dark bands, no relict texture, probable original granodiorite, consists almost totally of silica, 0.5% very fine disseminated pyrite.  
69.4 - 69.65 Late, fine grained ( $\leq$  1mm) mafic dyke  
69.75 - 69.9 Late, fine grained mafic dyke, 1-2% pyrite.  
72.4 - 72.7 Late, fine grained mafic dyke.  
Sharp contact
- 72.7      74.8      MAFIC VOLCANIC MYLONITE; 1am  
Medium grey, aphanitic-fine grained ( $<$  1mm). well developed, tight ( $\leq$  1mm) foliation at 45 degrees to the core axis, consisting of alternating light and dark bands of feldspar and mafics, well silicified, 0.5%

disseminated pyrite, locally to 1% as disseminated and stringers, common, minor silica-filled fractures and foliation planes.

Sharp contact

74.8      75.1      GRANODIORITE; WEAKLY DEFORMED; 4a

Late dyke, 1% disseminated pyrite.

Sharp contact

75.1      134.5      MAFIC VOLCANIC MYLONITE; 1am

Same as 72.7 - 74.8; variably silicified (10-100%), local biotite alteration (to 20%) along foliation planes, local sericite, <0.5-1% pyrite - locally to 2%.

75.25 - 75.7 100% silica, aphanitic, banded at 45-50 degrees, 1-2% pyrite as disseminated and stringers along foliation surfaces.

79.1 - 80.2 100% aphanitic siliceous, <0.5% pyrite.

84.0 - 93.5 25-75% silica, 5-20% biotite

98.2 - 100.8 25-75% silica, 5-20% biotite

0.5-1% pyrite - locally to 2%.

100.8 - 101.4 Granodiorite dyke, protomylonite, 4am.

101.4 - 104.6 25-75% silica; 5-20% biotite; 0.5-1% pyrite.

105.2 - 105.6 100% silica

106.8 - 107.1 75-100% silica, minor (2-3%) almandine garnet.

108.0 - 108.5 50-75% silica

109.1 - 114.5 25-75% silica; 5-15% biotite; <0.5-1% pyrite - locally to 3%.

113.9 - 115.6 1e; Probable original Fe-rich exhalite; 5-15% almandine garnet, weakly magnetic, high % aphanitic silica.

116.0 - 119.8 20-80% silica, 5-15% biotite, 0.5-1% pyrite - locally to 2%.

125.9 - 127.5 Protomylonite, weaker foliation, some original texture discernible.

128.1 - 128.4 50-100% silica.

129.2 - 129.6 50-100% silica.

129.9 - 134.5 Weakly deformed to protomylonite; weakly developed foliation, original texture apparent, silica and biotite alteration, 0.5-1% pyrite.

133.45 - 133.9 75-100% silica; 0.5-1% pyrite.

- sharp contact
- 134.5      135.55      GRANODIORITE; PROTOMYLONITE; 4am  
                Similar to Type.
- sharp contact
- 135.55      139.75      MAFIC VOLCANIC FLOW; 1a  
  
Relatively undeformed; dark grey, fine grained (<1mm), massive to weak foliation developed at 45-50 degrees to the core axis, constituents plagioclase and pyroxene, pyroxene > plagioclase, 0.5% disseminated pyrite, common, minor, silica-filled fractures - foliation surfaces, local silica, common biotite development (5-15%).
- Gradational contact
- 139.75      145.1      MAFIC VOLCANIC PROTOMYLONITE - MYLONITE; 1am  
  
Similar to Type; weak to strong foliation at 45-50 degrees to the core axis, common silica, 0.5-1% pyrite.  
  
139.75 - 140.25 25-75% silica.  
142.8 - 145.1 50-100% silica, 0.5-1% pyrite.
- Relatively sharp contact
- 145.1      152.3      MAFIC VOLCANIC FLOW (?); 1a  
  
Primary description similar to 135.55-139.75; apparent fracture zone, extensive in situ fracturing and brecciation, common to pervasive silica + (calcite) filled fractures - generally irregular, random and narrow (<1-3mm), common local alteration includes hematite, talc, clays, silica and chlorite.
- Relatively sharp contact.
- 152.3      154.53      GABBRO OR COARSE MAFIC VOLCANIC FLOW;  
                2a or 1a  
  
Grain size increases downhole from contact (1mm to 2-3mm), same types but to a lesser degree fracturing and alteration to 145.1-152.3.

154.53      154.53      END OF HOLE

## DIAMOND DRILL HOLE LL-89-4

Location: Line 24 West; 11+25 South

SAMPLE NUMBER	FROM(m)	TO(m)	INTERVAL(m)	ASSAY(oz/ton)
1166	4.9	6.4	1.5	<0.001
1167	6.4	7.9	1.5	<0.001
1168	7.9	8.9	1.0	<0.001
1169	8.9	10.0	1.5	<0.001
1170	10.4	12.0	1.6	<0.001
1171	12.0	13.5	1.5	0.001
1172	13.5	15.0	1.5	<0.001
1173	15.0	16.5	1.5	<0.001
1174	16.6	18.0	1.5	<0.001
1175	18.0	19.5	1.5	<0.001 check
1176	19.5	20.9	1.4	0.001
1177	20.9	22.4	1.5	<0.001
1178	22.4	23.9	1.5	0.001
1179	27.3	28.8	1.5	<0.001
1180	28.8	30.3	1.5	<0.001
1181	30.3	31.8	1.5	<0.001
1182	31.8	32.7	0.9	0.001
1183	32.7	34.2	1.5	<0.001
1184	35.2	36.7	1.5	<0.001 check
1185	42.4	43.9	1.5	0.001
1186	47.7	49.2	1.5	<0.001
1187	49.2	50.7	1.5	0.001
1188	50.7	52.2	1.5	<0.001
1189	52.2	53.7	1.5	<0.001
1190	53.7	55.2	1.5	<0.001
1191	55.2	56.7	1.5	<0.001
1192	56.7	58.2	1.5	<0.001
1193	58.2	59.7	1.5	<0.001 check
1194	59.7	61.2	1.5	<0.001
1195	61.2	62.7	1.5	<0.001
1196	67.6	69.1	1.5	<0.001
1197	69.1	70.6	1.5	0.001
1198	70.6	72.1	1.5	0.003
1199	72.1	73.6	1.5	<0.001
1200	73.6	75.1	1.5	<0.001
1201	75.1	75.8	0.7	<0.001
1202	75.8	77.3	1.5	<0.001 check
1203	77.3	78.5	1.2	<0.001
1204	78.5	80.4	1.9	<0.001
1205	80.4	81.9	1.5	<0.001
1206	81.9	83.4	1.5	<0.001
1207	83.4	84.9	1.5	<0.001
1208	84.9	86.4	1.5	<0.001
1209	86.4	87.9	1.5	0.001
1210	87.9	89.4	1.5	0.001
1211	89.4	90.9	1.5	<0.001 check
1212	90.9	92.4	1.5	<0.001

1213	92.4	93.9	1.5	<0.001
1214	93.9	95.4	1.5	0.001
1215	95.4	96.9	1.5	0.001
1216	96.9	98.4	1.5	0.002
1217	98.4	99.9	1.5	<0.001
1218	99.9	101.4	1.5	0.001
1219	101.4	102.9	1.5	<0.001
1220	102.9	104.4	1.5	0.001
1220	102.9	104.4	1.5	<0.001 check
1221	104.4	105.9	1.5	<0.001
1222	105.9	107.4	1.5	<0.001
1223	107.4	108.9	1.5	<0.001
1224	108.9	110.4	1.5	<0.001
1225	110.4	111.9	1.5	<0.001
1226	111.9	113.4	1.5	<0.001
1227	113.4	114.9	1.5	<0.001
1228	114.9	116.4	1.5	<0.001
1229	116.4	117.9	1.5	<0.001 check
1230	117.9	119.4	1.5	<0.001
1231	119.4	120.9	1.5	0.001
1232	120.9	122.4	1.5	0.001
1233	122.4	123.9	1.5	0.001
1234	123.9	125.4	1.5	<0.001
1235	125.4	126.9	1.5	0.001
1236	126.9	128.4	1.5	<0.001
1237	128.4	129.9	1.5	<0.001
1238	129.9	131.4	1.5	<0.001 check
1239	131.4	132.9	1.5	<0.001
1240	132.9	134.4	1.5	<0.001
1241	134.4	135.6	1.5	0.001
1242	135.6	137.1	1.5	<0.001
1243	137.1	138.6	1.5	0.001
1244	138.6	140.1	1.5	0.001
1244	138.6	140.1	1.5	<0.001 check
1245	140.1	141.6	1.5	<0.001
1246	141.6	143.1	1.5	<0.001
1247	143.1	144.1	1.0	<0.001
1248	144.1	145.1	1.0	<0.001
1249	145.1	146.6	1.5	<0.001
1250	148.4	149.9	1.5	<0.001

## DIAMOND DRILL RECORD

## LAIRD LAKE PROJECT

HOLE NUMBER: LL-89-5 LOCATION: Line 29+00W; 12+00S

AZIMUTH: 0 degrees DIP: -50 degrees LENGTH: 102.7m

DRILLED BY: N. Morissette CORE DIAMETER: BQ CASING: 2.3m

STARTED: March 5, 1989 FINISHED: March 7, 1989

LOGGED BY: Murray C. Rogers SYSTEM: Metric

ACID TESTS: 60.96m -46 degrees  
102.7m -46 degrees

FOOTAGE		DESCRIPTION
From	To	
0.0	2.3	OVERBURDEN
2.3	15.15	MAFIC VOLCANIC MYLONITE; 1am  Dark grey, fine grained (<1mm), well developed, tight (<1-2mm) foliation at 45 degrees to the core axis, original texture totally destroyed, alternating light/dark foliation bands comprised of feldspar and mafics, 0.5-1% disseminated pyrite - locally to 2% along foliation planes, variably silicified (10-100%), common biotite alteration as foliation bands (5-25%), common to extensive silica +(calcite) filled fractures and foliation-regular to irregular, random to aligned, narrow (<1-3mm). Type 1am.  5.3 - 6.7 Weakly developed foliation; biotite alteration (10-25%), 1-2% disseminated pyrite. 6.7 - 7.15 75-100% silica. 8.3 - 10.0 50-80% silica, 0.5-1% disseminated pyrite. 11.1 - 12.9 25-75% silica, 0.5-1% pyrite 14.45 - 14.8 75-100% silica  Sharp contact
15.15	16.0	GABBRO; PROTOMYLONITE; 2am

Dark grey, fine-medium grained (1-2mm), weak foliation developed at 45-50 degrees to the core axis, constituents: plagioclase and pyroxene - plagioclase/pyroxene: 40/60, 1% disseminated pyrite, original texture apparent with pronounced grain alignment, minor silica-filled fractures, late intrusive. Type 2am.

Sharp contact

16.0      16.8      MAFIC VOLCANIC MYLONITE; 1am  
Same as Type.

Sharp contact

16.8      17.3      GABBRO; PROTOMYLONITE; 2am  
Same as Type.

Sharp contact

17.3      17.5      MAFIC VOLCANIC MYLONITE; 1am  
Same as Type.

Sharp contact

17.5      18.15     FELSIC MYLONITE; 6

Medium orangish-pink aphanitic, well foliated at 45 degrees to the core axis with alternating light/dark bands (<1mm), essentially 100% silica, 1% very fine, disseminated pyrite, no original texture, probable original granodiorite, common, minor silica-filled fractures-irregular to straight, random to foliation parallel, narrow (<1-2mm). Type 6.

Sharp contact

18.15      19.7      MAFIC VOLCANIC MYLONITE; 1am  
Similar to Type; foliation at 45-55 degrees, extensive (50-100%) silica, 0.5% disseminated pyrite.

Sharp contact

19.7      20.2      FELSIC MYLONITE; 6

- Same as Type.
- 20.2      20.7      Sharp contact  
              MAFIC VOLCANIC MYLONITE; 1am  
  
              Similar to Type; 25-75% silica.
- Gradational contact
- 20.7      24.85     MAFIC VOLCANIC PROTOMYLONITE; 1am  
  
              Dark grey, fine grained (<1mm), weak foliation-grain alignment at 60 degrees to the core axis, constituents, plagioclase and pyroxene, 0.5% disseminated pyrite, local silica. (10-50%), common biotite alteration (5-20%), common, minor silica-filled fractures, local, minor granodiorite contamination.
- Sharp contact
- 24.85     26.0      FELSIC MYLONITE; 6  
  
              Similar to Type, foliation at 45-60 degrees to the core axis, 1% disseminated pyrite - locally to 3% as disseminated and stringers parallel to the foliation.
- Sharp contact
- 26.0      29.6      GRANODIORITE TO GRANODIORITE - MAFIC VOLCANIC HYBRID; PROTOMYLONITE; 4am - 4cm  
  
              Variable colour from dark pinkish-grey to medium pink, fine-medium grained (<1-3mm), weak-well developed foliation at 45-60 degrees to the core axis, variable composition between end-members, pronounced grain alignment, original textures generally apparent, local, relict quartz grains, 0.5-1% disseminated and stringer pyrite - locally to 3%, common silica, common, minor silica-filled fractures. Type 4am - 4cm.  
  
              27.5 - 27.9 2-5% pyrite as stringers and disseminated.
- Gradational contact
- 29.6      31.1      GRANODIORITE; MYLONITE; 4am

Medium orangish-pink, aphanitic with relict aligned quartz grains (to 4mm), well developed, tight ( $\leq$ 1mm) foliation at 45 degrees to the core axis, consisting of alternating light/dark bands, pure (100%) silica, 2-5% pyrite as disseminated and stringers parallel to foliation. Type 4am mylonite.

Sharp contact

31.1      32.2      MAFIC VOLCANIC PROTOMYLONITE; 1am

Same as 20.7 - 24.85

Sharp contact

32.2      33.8      GRANODIORITE; MYLONITE; 4am

Same as Type; 1% disseminated pyrite - locally to 5% as disseminated and stringers parallel to foliation.

Gradational contact

33.8      37.0      GRANODIORITE; PROTOMYLONITE; 4am

Similar to mylonite except weaker foliated, original textures still apparent, variable grain sizes 1-4mm, 0.5-1% disseminated pyrite - locally to 3% as disseminated and stringers parallel to the foliation. Type 4am proto-mylonite.

34.8 - 35.2 2-3% pyrite

Gradational contact

37.0      39.6      GRANODIORITE; MYLONITE; 4am

Similar to Type; well developed foliation at 20-30 degrees to the core axis, common, stretched, aligned quartz and lesser feldspar grains, 1% disseminated pyrite locally to 3%.

Gradational contact

39.6      42.7      GRANODIORITE; PROTOMYLONITE; 4am

Same as Type.

### **Gradational contact**

42.7	46.3	GRANODIORITE; MYLONITE; 4am Similar to 37.0 - 39.6. 43.4 - 43.6 3-5% pyrite as stringers along fractures 44.3 - 44.8 Local lam unit. Sharp contact
46.3	51.8	MAFIC VOLCANIC FLOW; 1a Dark grey, fine grained (<1mm), massive, constituents plagioclase and mafics, <0.5% pyrite, hosts part of a fault-fracture zone - common to extensive silica + calcite and talc - filled fractures - generally irregular random, narrow (1-5mm), common alteration generally fracture controlled includes talc, chlorite, silica and calcite. Sharp lithologic contact 50.6 - 55.2 Common to extensive broken core with local fault gouge; fault zone.
51.8	55.3	GRANODIORITE; PROTOMYLONITE; 4am Similar to Type; 1-2% disseminated pyrite Sharp contact
55.3	55.7	MAFIC VOLCANIC MYLONITE; 1am Similar to Type; foliation at 30 degrees to the core axis. Sharp contact
55.7	56.8	GRANODIORITE; WEAKLY PROTOMYLONITE; 4a - 4am Weak grain alignment and foliation locally at 30 degrees to the core axis, original texture generally apparent, but extensive silica through-out, 1% pyrite - locally to 2% as disseminated. Sharp contact

56.8	57.0	MAFIC VOLCANIC MYLONITE; 1am Sharp contact
57.0	59.3	GABBRO; 2a  Dark grey, fine-medium grained (1-2mm), massive, equigranular, constituents plagioclase and pyroxene, plagioclase/pyroxene: 50/50; 0.5% disseminated pyrite, occasional silica-filled fractures, late intrusive dyke. Type 2a. Sharp contact
59.3	67.2	MAFIC VOLCANIC MYLONITE; 1am  Similar to Type; foliation at 40-45 degrees to the core axis, extensive (25%-100%) silica, 0.5-1% pyrite - locally to 2%, local dykes of granodiorite and gabbro. 60.5 - 60.9 Granodiorite protomylonite; 4am; dyke, sharp contacts. 66.35 - 66.9 Gabbro dyke; 2a  Gradational contact
67.2	75.35	MAFIC VOLCANIC; STRONGLY ALTERED 1a TO PROTOMYLONITE 1am  Weak to no foliation, 25-100% silica, 0.5-1% pyrite.  Gradational contact
75.35	79.2	MAFIC VOLCANIC MYLONITE; 1am  Similar to Type; foliated - banding at 35-40 degrees to the core axis, 50-100% silica, 0.5-1% disseminated pyrite.  Gradational contact
79.2	81.65	MAFIC VOLCANIC PROTOMYLONITE; 1am  Similar to 67.2 - 75.35; weak to no foliation, 25-100% silica, 0.5% pyrite. Sharp contact
81.65	84.0	GABBRO DYKE; 2a

Similar to Type; common talc developed along fractures.

Sharp contact

84.0      84.9      MAFIC VOLCANIC PROTOMYLONITE - MYLONITE; 1am  
Same as 79.2 - 81.65.

Sharp contact

84.9      86.5      GABBRO DYKE; 2a  
Same as 81.65 - 84.0

Sharp contact

86.5      86.8      MAFIC VOLCANIC PROTOMYLONITE - MYLONITE; 1am  
Same as 79.2 - 81.65.

Sharp contact

86.8      90.6      GABBRO DYKE; 2a  
Same as 81.65 - 84.0; common silica + calcite or calcite-filled fratures.

sharp contact

90.6      94.8      MAFIC VOLCANIC PROTOMYLONITE - MYLONITE; 1am  
Same as 79.2 - 82.65; 0.5% pyrite - locally to 1-2%.

Sharp contact

94.8      102.7      GABBRO; 2a  
Similar to Type; fine grained (1-2mm), local intervals of totally (100%) silica, 1am (mafic volcanic mylonite).  
98.0 - 98.25 1am; 100% silica; 1-2% disseminated pyrite.  
98.6 - 99.1 1am; 100% silica, 1-2% pyrite  
99.45 - 99.6 1am; 100% silica, 1-2% pyrite

102.7      102.7      END OF HOLE

## DIAMOND DRILL HOLE LL-89-5

Location: Line 29+00 West; 12+00 South

SAMPLE NUMBER	FROM(m)	TO(m)	INTERVAL(m)	ASSAY(oz/ton)
1251	2.3	3.8	1.5	<0.001
1252	3.8	5.3	1.5	<0.001
1253	5.3	6.8	1.5	<0.001
1254	6.8	8.3	1.5	<0.001 check
1255	8.3	9.8	1.5	<0.001
1256	9.8	11.3	1.5	<0.001
1257	11.3	12.8	1.5	<0.001
1258	12.8	14.3	1.5	<0.001
1259	14.3	15.8	1.5	<0.001
1260	15.8	17.5	1.7	<0.001
1261	17.5	18.3	0.8	<0.001
1262	18.3	19.7	1.4	<0.001
1263	19.7	21.2	1.5	<0.001 check
1264	21.2	22.7	1.5	<0.001
1265	22.7	24.2	1.5	<0.001
1266	24.2	24.9	0.7	<0.001
1267	24.9	26.4	1.5	0.001
1268	26.4	27.9	1.5	<0.001
1269	27.9	29.4	1.5	<0.001
1270	29.4	30.5	1.1	0.002
1271	30.5	31.3	0.8	<0.001
1272	31.3	32.2	0.9	<0.001 check
1273	32.2	33.8	1.6	<0.001
1274	33.8	35.3	1.5	<0.001
1275	35.3	36.8	1.5	<0.001
1276	36.8	38.3	1.5	0.001
1277	38.3	39.8	1.5	<0.001
1278	39.8	41.3	1.5	<0.001
1279	41.3	42.8	1.5	<0.001
1280	42.8	44.3	1.5	<0.001
1281	44.3	45.8	1.5	<0.001 check
1282	45.8	47.0	1.2	<0.001
1283	47.0	48.5	1.5	<0.001
1284	48.5	50.0	1.5	<0.001
1285	50.0	51.8	1.8	<0.001
1286	51.8	53.3	1.5	<0.001
1287	53.3	54.8	1.5	0.001
1288	54.8	56.0	1.2	0.001
1289	56.0	57.0	1.0	<0.001
1290	59.5	60.8	1.3	<0.001 check
1291	60.8	62.3	1.5	<0.001
1292	62.3	63.8	1.5	0.001
1293	63.8	65.3	1.5	0.002
1294	65.3	66.8	1.5	0.001
1295	66.8	68.3	1.5	<0.001
1296	68.3	69.8	1.5	<0.001
1297	69.8	71.3	1.5	0.001
1298	71.3	72.8	1.5	<0.001

1299	72.8	74.3	1.5	<0.001 check
1300	74.3	75.8	1.5	<0.001
1301	75.8	77.3	1.5	0.001
1302	77.3	78.8	1.5	<0.001
1303	78.8	80.3	1.5	0.001
1304	80.3	81.6	1.3	<0.001
1305	84.0	84.9	0.9	0.001
1306	86.5	86.8	0.3	<0.001
1307	90.6	92.1	1.5	<0.001
1308	92.1	93.6	1.5	0.001
1308	92.1	93.6	1.5	<0.001 check
1309	93.6	94.8	1.2	0.001
1310	98.0	99.0	1.0	0.001
1311	99.0	99.8	0.8	<0.001 check

## DIAMOND DRILL RECORD

## LAIRD LAKE PROJECT

HOLE NUMBER: LL-89-6                            LOCATION: Line 29+75W; 10+12.5S

AZIMUTH: 340 degrees    DIP: -45 degrees    LENGTH: 175.9m

DRILLED BY: N. Morissette    CORE DIAMETER: BQ    CASING: 2.65m

STARTED: March 8, 1989                            FINISHED: March 10, 1989

LOGGED BY: Viera Kovac                            SYSTEM: Metric

ACID TESTS:    60.96m    -43 degrees  
                   121.91m    -39 degrees  
                   175.90m    -39 degrees

FOOTAGE		DESCRIPTION
From	To	
0.0	2.65	OVERBURDEN
2.65	48.8	BASALT FLOW; 1a  Dark greenish-grey, fine grained (<1mm), massive generally featureless, composition-original plagioclase and mafics - pyroxene; plagioclase/mafics: 35/65, extensive fine grained chloritization of pyroxene, common minor silica + calcite filled fractures, generally irregular, random, narrow (1-3mm) occasionally to 2-3cm, <0.5% disseminated pyrite - locally to 2%. Sharp downhole contact 30 degrees to the core axis.
	6.8	- 7.2 Local silica, quartz veinlets to 3cm, 0.5-1% disseminated pyrite.
	9.2	- 10.05 Siliceous orange dyke with 5% mafics (hornblende?), fine-medium grained anhedral mafic crystals, minor weak carbonate. Dyke composition is predominantly K-feldspar and quartz : 60/35, Sharp uphole and downhole contacts, 10 and 70 degrees to the core axis, respectively.
	14.6	- 14.75 Quartz-carbonate veinlet with trace pyrite, veinlet is at 10 degrees to the core axis.
	16.1	- 16.25 Basalt (komatiite?), weakly magnetic interval.

27.75 - 39.85 Basalt (komatiite?). Fine grained, moderately foliated, medium grey unit. Foliation is 25-55 degrees to the core axis. 15-20% hairline blackish fractures through-out, most predominantly parallel to the core axis, some randomly oriented. Weakly silicified, very trace upto 1% rare disseminated pyrite. Sharp uphole contact 55 degrees to the core axis; gradational downhole contact.

41.6 - 41.7 Quartz-carbonate-chlorite veinlet at 35 degrees to the core axis, upto 0.5% fine grained disseminated pyrite.

47.9 - 48.8 Mafic volcanic with 35-40% wispy quartz-carbonate stringers predominantly at 30 degrees to the core axis. 1-5mm wide, trace to 1% very weakly banded pyrite parallel to the foliation.

48.8 Small scale fault with a displacement of 5mm, somewhat parallel to the core axis.

48.8 51.2 MAFIC TUFF; 1b

Fine grained, massive, medium grey tuff, subrounded, upto 1mm diameter plagioclase grains. Non-carbonated, weakly siliceous homogenous unit with sharp uphole and downhole contacts at 30 and 25 degrees to the core axis, respectively. Weakly foliated near the downhole contact. Rare trace pyrite.

51.2 57.0 INTERMIXED MAFIC FLOW AND TUFF; 1a,1b

Fine grained, weakly foliated, medium grey-green unit with sparse to abundant (5-30%) wispy quartz-carbonate stringers parallel foliation (40 degrees to the core axis), as well as randomly oriented. Minor talc-carbonate as fracture filling. Trace disseminated pyrite, upto 1% local fine grained subhedral pyrite crystals. Well defined downhole contact 25 degrees to the core axis.

57.0 62.5 INTERMIXED MAFIC FLOW AND GRANODIORITE; 1a,4a

Fine - medium grained, very weakly foliated unit. Granodiorite has much of it's original equigranular texture, mafic minerals (biotite) define the foliation 20 degrees to the core axis. 40%, subrounded feldspar grains, generally 1mm diameter. Moderately

siliceous with rare disseminated pyrite, locally upto 2% fine grained hairline pyrite stringers parallel to and associated with quartz-carbonate stringers.

57.0 - 60.5 Basalt (komatiite?). Weakly magnetic unit, similar to 27.75 - 39.85, but resembles more of a mafic flow.

62.5      73.3

BASALT; 1a

Fine grained, massive to weakly foliated medium greyish-green colour with sparse (5%) wispy quartz-carbonate stringers (1-2mm wide). Minor talc-carbonate alteration as fracture filling. Locally siliceous, 10-15% banded biotite alteration. Biotite defines the foliation. Local, minor chlorite alteration associated with quartz-carbonate stringers. Trace to 0.5% fine grained disseminated pyrite, with upto 1% hairline stringers parallel foliation (30 degrees to the core axis). Gradational uphole and downhole contacts.

71.3 - 71.1 Felsic Protomylonite; Fine grained, weak to moderately foliated, 1% fine grained, disseminated pyrite. Sharp uphole and downhole contacts 20 degrees to the core axis.

73.33      74.5

EXHALITE; 1e

Fine grained, well banded, 10-15% fine grained pyrite stringers parallel to the foliation (25 degrees to the core axis). Locally magnetic, 40% chert, 5-10% biotite, trace chalcopyrite. Somewhat distinct uphole and downhole contacts parallel to the foliation.

74.5      104.0

SHEARED BASALT; 1am

Fine grained, massive to locally very weakly foliated, medium grey coloured locally banded unit. Locally strongly siliceous, non magnetic, minor carbonate-talc filling fractures. Minor biotite alteration bands <3mm wide. Trace - 1% fine grained disseminated pyrite, and along fracture planes.

77.0 - 78.0 Mafic Tuff; 1b  
10%, 1mm, subhedral-anhedral white - pinkish feldspar grains, randomly oriented. 1-2% pyrite, disseminated and as somewhat localized near an area of weak silica flooding.

78.4 - 78.8 Locally abundant medium orange plagioclase grains, trace to 1% fine grained disseminated pyrite.

86.5 - 93.5 Basalt (komatiite?)

Locally magnetic, weakly banded with medium green and grey, 2cm wide bands. Abundant quartz-carbonate stringers near the downhole contact. Stringers are generally 25 degrees to the core axis. 1% disseminated pyrite and as hairline stringers parallel to the foliation. Minor (<5%) biotite alteration, minor carbonate filling fractures. Local well developed foliation, defined by wispy 1mm long white hairline (smeared) plagioclase grains. Gradational contacts.

86.9 - 87.2 weakly magnetic section with a well developed foliation, 0.5-1% pyrite.

87.2 Small scale fault with a displacement of 2mm parallel to the core axis.

93.6 - 94.0 Felsic Mylonite; 6

Strong silica flooding with smeared mafic minerals, which define the foliation at 15 degrees to the core axis. Very minor milky white minor carbonate as fracture filling. Trace pyrite, 1% fine grained pyrite associated with sparse quartz-carbonate veinlets near the downhole contact. Distinct uphole and downhole contacts at 15 degrees to the core axis.

96.0 - 96.40 Basalt (komatiite?)

Massive, very weakly magnetic, locally sparse, milky white carbonate as fracture filling veinlets <1cm wide. as well as 1cm diameter blebs.

98.5 Foliation at 25 degrees to the core axis.

104.0

116.5

BASALT (KOMATIITE ?)

Fine grained, moderately foliated, non-

carbonate, weakly siliceous unit, well foliated at 20-25 degrees to the core axis. Colour varies from medium green-grey with 35% 50cm - 2m wide sections of medium grey with abundant hairline black fractures throughout, randomly oriented, but most are predominantly parallel to the foliation. This unit is pervasively magnetic. Trace to local 1% fine grained disseminated pyrite, locally as hairline stringers, and as fracture filling. Minor (3-5%) biotite alteration and some talc (<2%) bluish-green colour, occurs as fracture filling and along foliation planes. Gradational uphole contact; sharp downhole contact 35 degrees to the core axis.

108.0 - 108.5 & 109.0 - 110.4 5% red hematitic staining of randomly oriented hairline quartz-carbonate stringers, the alteration varies from 1-3mm wide along the stringers.

114.9 Sparse (<3%) quartz-carbonate stringers parallel to the foliation.

116.5      122.55

GRANODIORITE; 4a

Fine grained to medium, massive-weakly foliated 35% to the core axis. Generally surrounded plagioclase and K-feldspar, equigranular crystals with 10% mafic minerals (biotite) which defined the weak foliation.. Sharp uphole and downhole contacts at 35 and 15 degrees to the core axis respectively. There is a small scale fault running parallel to the core axis near the downhole contact, with a displacement of 3mm. Minor talc-carbonate filled fractures upto 2mm wide. 25%, 50cm-1m wide mafic volcanic non-magnetic intervals cross cut the granodiorite near the uphole contact.

121.5 - 122.0 Minor talc - carbonate along fractures and infilling veinlets, 1% pyrite associated with some of the fractures.

121.9 Local hematitic staining of the wallrock adjacent to fractures of carbonate infilling.

122.55      125.9      BASALT; 1a

Fine grained, medium green, weakly foliated with minor tuffaceous sections of 5-10 cm width. Tuff sections have 10%, 1-2mm lensoidal white plagioclase grains. Local, minor 5-10% fine grained and hairline stringers of pyrite, in some places subhedral crystals developed.

123.0 & 123.55 Bluish-green talc-carbonate as fracture filling of 0.5-2cm wide veinlets.  
124.0 10cm wide, 90% siliceous felsic dyklet. Sharp uphole contact at 15 degrees to the core axis, somewhat obscured downhole contact due to broken core.

125.9

175.9

## BASALT (KOMATIITE ?)

Weakly magnetic, but generally pervasive unit. A variation in colour from medium grey with blackish hairline fractures, randomly oriented, (but predominantly parallel to the foliation), to an orangish-grey and a medium green (characteristic of mafic flow unit). Local strong silicification. Fine grained, weak to moderately foliated at 35 degrees to the core axis. Non-carbonated, minor bluish-green talc-carbonate veinlets, generally <3mm wide. Trace to 1% fine grained pyrite, locally associated with thin, 3mm wide carbonate veinlets.

132.6 - 132.8 90% siliceous felsic mylonite with 10% biotite which defines the foliation. Trace pyrite.

133.2 - 135.0 & 141.1 - 144.5 Basaltic mylonite, very fine grained, greyish-brown colour, silicified (70%) with 3-5%, 1-2mm smeared plagioclase grains define the weak foliation (25 degrees to the core axis). Sparse hematitic staining around hairline carbonate fractures. Trace pyrite, 25% magnetite grains <1mm diameter.

1360.0 - 136.6 Mixed volcanic and granodiorite (1a,4a); Fine grained-medium, with 20% chlorite alteration.

150.45 - 151.3 Diorite; poorly developed, fine grained, massive 20-25% mafics, talc as fracture fill and on fracture planes locally, trace pyrite, crystalline texture.

153.45 - 156.1 Coarse Grained Mafic Volcanic Flow; Medium grained, massive flow, brownish-green colour, non-carbonated and non-magnetic. Minor bluish-green talc as fracture fill and as <0.1cm veinlets. 1% disseminated pyrite. Distinct, but obscured uphole and downhole contacts.

162.5 - 165.0 Moderately silicified unit, with strong local fractures, upto 20% bluish-green talc alteration as fracture fill and as veinlets upto 1cm wide, predominantly parallel to the core axis. Gradational contacts. Fine grained, massive, non-carbonated, non-magnetic. Trace - 0.5% pyrite, locally associated with talc veinlets.

168.7 - 169.9 Weak-moderately silicified, massive, fine grained, medium grey colour, weakly magnetic, trace pyrite along fracture planes. Gradational contacts.

171.6 3mm wide magnetic veinlet at 45 degrees to the core axis.

175.9      175.9      END OF HOLE

## DIAMOND DRILL HOLE LL-89-6

Location: Line 29+75 West; 10+12.5 South

SAMPLE NUMBER	FROM(m)	TO(m)	INTERVAL(m)	ASSAY(oz/ton)
1312	6.6	8.1	1.5	<0.001
1313	9.1	9.9	0.8	<0.001
1314	17.4	18.4	1.0	<0.001
1315	21.25	22.25	1.0	<0.001
1316	29.6	31.1	1.5	0.001
1317	32.6	34.4	1.5	<0.001
1318	37.2	38.7	1.5	0.001
1319	47.9	48.8	0.9	0.001
1320	51.2	52.7	1.5	<0.001
1321	52.7	54.2	1.5	<0.001 check
1322	54.2	56.0	1.8	<0.001
1323	56.0	57.0	1.0	0.001
1324	57.0	58.5	1.5	<0.001
1325	58.5	60.0	1.5	<0.001
1326	60.0	61.0	1.0	0.001
1327	63.1	64.1	1.0	<0.001
1328	72.15	73.5	1.35	<0.001
1329	73.5	74.5	1.0	0.004
1330	74.5	76.0	1.5	0.001 check
1331	76.0	77.0	1.0	<0.001
1332	78.0	78.5	0.5	0.001
1333	86.65	88.0	1.35	0.001
1334	88.0	90.1	2.1	<0.001
1335	90.1	91.5	1.4	<0.001
1336	91.5	93.5	2.0	<0.001
1337	93.5	94.9	1.4	<0.001
1338	94.9	96.4	1.5	<0.001
1339	101.1	102.6	1.5	0.001
1339	101.1	102.6	1.5	<0.001 check
1340	102.6	104.1	1.5	<0.001
1341	108.35	109.8	1.45	0.001
1342	113.85	115.3	1.45	<0.001
1343	121.0	122.55	1.55	<0.001
1344	122.55	124.0	1.45	0.001
1345	124.0	125.5	1.5	0.002
1346	125.5	127.7	1.6	<0.001
1347	128.9	130.25	1.35	<0.001
1348	133.2	134.7	1.5	<0.001 check
1349	147.15	148.5	1.35	<0.001
1350	150.5	152.0	1.5	<0.001
1351	152.0	153.5	1.5	<0.001
1352	154.65	156.1	1.45	<0.001
1353	159.1	160.6	1.5	<0.001
1354	161.7	163.2	1.5	<0.001
1355	163.2	164.6	1.4	<0.001
1356	164.6	165.6	1.0	<0.001
1357	168.4	169.8	1.4	<0.001 check
1358	172.7	174.1	1.4	<0.001

# DIAMOND DRILL RECORD

## LAIRD LAKE PROJECT

HOLE NUMBER: LL-89-7 LOCATION: Line 40+00W; 11+60S

AZIMUTH: 345 degrees DIP: -50 degrees LENGTH: 157.6m

DRILLED BY: N. Morissette CORE DIAMETER: BQ CASING: 9.95m

STARTED: March 10, 1989 FINISHED: March 12, 1989

LOGGED BY: Murray C. Rogers SYSTEM: Metric

ACID TESTS: 60.96m -44 degrees  
121.91m -41.5 degrees  
157.6m -41 degrees

FOOTAGE		DESCRIPTION
From	To	
0.0	9.95	OVERBURDEN
9.95	54.6	BASALT FLOW; 1a  Dark grey, fine grained (<1mm), massive-weak foliation at 60 degrees to the core axis, rare unaltered composition plagioclase and mafics, plagioclase/mafics: 35/65, very common alteration: fracture controlled or pervasive, magnetite-talc-carbonate, chlorite or pervasive non-magnetic biotite alteration; magnetite as fine disseminations, clots or rare stringers, nil to 0.5% disseminated pyrite, occasional calcite + silica filled fractures. Type 1a.
9.95	- 12.9	Weak-strong, pervasive magnetite/talc/carbonate alteration; 11.3-11.6 and 12.75 - 12.95 - strong alteration.
12.9	- 13.6	10-20% biotite alteration.
13.6	- 15.05	Weak, pervasive magnetite/talc/carbonate alteration.
15.05	- 16.4	10-20% biotite alteration.
16.4	- 22.2	Weak-moderate magnetite/talc/carbonate alteration.
22.2	- 25.0	Moderate-strong, pervasive magnetite/talc/carbonate alteration.
25.0	- 25.9	Weak magnetite/talc/carbonate

alteration.

25.9 - 26.9 10% biotite alteration.

26.9 - 28.2 Weak-moderate magnetite/talc/carbonate alteration

28.2 - 29.6 10-25% biotite alteration; local talc/carbonate filled fractures.

29.6 - 35.0 Weak-moderate, pervasive magnetite/talc/carbonate alteration.

35.0 - 36.2 Strong magnetite/talc/carbonate alteration.

35.8 - 35.95 Grey quartz vein with silicification.

36.2 - 36.9 25% biotite alteration

36.9 - 54.6 Weak-strong, pervasive magnetite/talc/carbonate alteration.

36.6 - 37.2 Strong magnetite/talc/carbonate alteration.

38.7 - 41.7 0.5% pyrite as local stringers or disseminated along fractures.

38.7 - 39.2 Strong magnetite/talc/carbonate alteration.

50.15 - 51.7 Strong magnetite/talc/carbonate alteration.

50.3 - 50.55 Granodiorite dyke; refer to 54.6-58.7

53.7 - 54.6 Strong magnetite/talc/carbonate alteration.

#### Sharp contact

54.6 58.7 GRANODIORITE; BIOTITIC; 4a

Medium grey, fine-medium grained (1-2mm), massive, equigranular, 15-20% quartz, 10-20% biotite, 60-75% plagioclase, local pyrite from 0.5 to 3%.

57.3 - 57.7 Strong, pervasive magnetite/talc/carbonate alteration.

#### Sharp contact

58.7 73.35 BASALT FLOW; 1a

Same as type.

58.7 - 73.35 Weak-strong, pervasive magnetite/talc/carbonate alteration.

58.7 - 60.0 Strong magnetite/talc/carbonate alteration

60.25 - 60.4 Strong magnetite/ talc/ carbonate alteration  
61.6 - 62.5 Moderate-strong magnetite/ talc/carbonate chlorite alteration.  
66.05 - 67.6 Total magnetite/talc/ carbonate/chlorite alteration, totally broken core.  
67.6 - 73.35 Moderate-strong magnetite/ talc/carbonate alteration  
68.4 - 68.6 Granodiorite dyke.

Sharp contact

73.35      74.3      QUARTZ VEIN

73.35 - 74.05 Massive, medium red, "granitic" quartz, local, minor grey quartz veinlets.  
74.05 - 74.3 Light-medium grey, massive quartz, 0.5-1% pyrite as stringers and disseminated along fractures.

Sharp contact

74.3      94.05      BASALT FLOW; 1a-1am

Relatively undeformed to local mylonite; common alteration throughout, common quartz-calcite veinlets developed along fractures, local pyrite 0.5-2%

74.3 - 77.5 Strong to total pervasive magnetite/talc/carbonate +chlorite alteration local foliation developed at 45 degrees to the core axis, common broken core.

77.5 - 82.1 Weak-moderate magnetite/talc/carbonate alteration; common calcite + quartz veinlets - generally irregular, random, narrow (1-10mm), local pyrite in veinlets to 2%

82.1 - 82.5 Strong magnetite/talc/carbonate alteration

82.5 - 83.4 25 - 50% biotite alteration, weak foliation at 60 - 65 degrees to the core axis.

83.4 - 83.8 Total magnetite/talc/carbonate alteration

83.8 - 87.9 Weak-strong magnetite/talc/carbonate alteration.

83.9 - 84.1 1-2% pyrite associated with talc/carbonate fractures - veinlets.

85.9 - 86.85 Strong magnetite/ talc/ carbonate alteration

94.05	98.5	GRANODIORITE; BIOTITIC; 4a	4
		Dark pinkish-grey, fine grained (1-2mm), generally massive, local grain alignment, equigranular, 10% quartz, 15-20% biotite, 70-75% feldspar, plagioclase > K-feldspar, 0.5% disseminated pyrite.	
		Relatively sharp contact	
98.5	157.6	BASALT FLOW; 1a - 1am	
		Similar to 74.3 - 94.05; similar alteration types, local intervals of silicification, local pyrite 0.5-3%	
		98.9 - 99.0 Strong magnetite/talc/carbonate alteration	
		99.9 - 100.6 Extensive chlorite alteration, local silica.	
		100.6 - 101.2 50-75% silicification, 0.5-1% disseminated pyrite	
		101.2 - 101.7 Strong magnetite/talc/carbonate alteration.	
		101.7 - 102.0 15-20% biotite alteration, foliation at 65 degrees to the core axis.	
		102.0 - 102.4 Strong magnetite/talc/carbonate alteration	
		102.4 - 103.5 10-15% biotite alteration	
		103.5 - 104.5 50-100% silica, 0.5-1% pyrite	
		104.5 - 106.1 10-30% silica, 10-20% biotite, 0.5% pyrite, weak foliation at 65 degrees to the core axis.	
		106.1 - 122.95 10-25% biotite alteration, 0.5% pyrite locally to 3%.	
		107.0 - 107.4 2-3% pyrite as stringers and disseminated	
		109.8 - 112.0 2-3% pyrite as stringers and disseminated, magnetite, weak foliation at 65 degrees to the core axis, local quartz veinlets, parallel to the foliation.	

ASSAY \*\* SAMPLE NUMBER: 1405 // 109.8 - 110.8 // 0.019 oz Au/ton

110.6 - 110.75 Grey quartz veining, 2-3% pyrite  
113.75 - 114.65 Granodiorite dyke; 4a  
114.9 - 115.1 Granodiorite dyke; 4a  
115.1 - 118.3 1-3% pyrite as disseminated and stringers, 10-30% biotite, magnetite, local quartz veinlets.

ASSAY \*\* SAMPLE NUMBER: 1407 // 115.1 - 116.8 // 0.030 oz Au/ton

116.8 - 117.05 Granodiorite dyke, 4a  
120.05 - 122.95 1-3% pyrite, 10-30% biotite  
alteration, local quartz veinlets.  
122.95 - 123.4 Pervasive chlorite alteration  
123.4 - 126.0 Moderate-strong talc/carbonate/  
magnetite alteration with local pyrrhotite  
(0.5-3%) as blebs and stringers, local  
foliation at 65-70 degrees to the core axis.  
126.0 - 126.3 Pervasive chlorite alteration  
126.3 - 136.2 1-2% pyrite as disseminated and  
as stringers locally to 5%, 10-30% biotite  
alteration, magnetite, local talc/carbonate  
veinlets, local quartz veinlets.  
136.2 - 136.6 Pervasive chlorite alteration  
136.6 - 136.8 Pervasive biotite alteration,  
foliation at 65-70 degrees to the core axis.  
136.8 - 137.2 Moderate magnetite/talc/  
carbonate/chlorite alteration  
137.2 - 137.85 10-20% biotite alteration,  
0.5% pyrite  
137.85 - 139.3 Moderate-strong talc/carbonate/  
magnetite/chlorite alteration, foliation at  
45-70 degrees to the core axis.  
139.3 - 146.3 5-20% biotite alteration, 1-2%  
disseminated pyrite, local quartz veinlets.

ASSAY \*\* SAMPLE NUMBER: 1424 // 141.3 - 142.3 // 0.010 oz Au/ton

144.2 - 145.4 Common grey quartz veinlets-  
veins, 5mm - 5cm widths, 1-2% pyrite.  
146.3 - 148.2 Granodiorite contamination.  
146.3 - 153.5 10-30% biotite atleration <0.5%  
pyrite, locally to 1%, local quartz veinlets.  
152.3 - 153.5 1-2% disseminated and  
stringer pyrite.

ASSAY \*\* SAMPLE NUMBER: 1426 // 152.0 - 153.5 // 0.027 oz Au/ton

153.5 - 153.8 Strong talc/carbonate/magnetite/  
chlorite atleration  
153.8 - 154.2 10-30% biotite alteration  
154.2 - 156.15 Weak magnetite/talc/carbonate  
alteration, local pyrite-pyrrhotite along  
fractures.  
156.15 - 156.8 10-20% biotite alteration,  
<0.5% pyrite  
156.8 - 157.8 Weak magnetite/talc/carbonate  
alteration.

157.6      157.6      END OF HOLE

## DIAMOND DRILL HOLE LL-89-7

Location: Line 40+00 West; 11+60 South

SAMPLE NUMBER	FROM(m)	TO(m)	INTERVAL(m)	ASSAY(oz/ton)
1359	11.3	12.8	1.5	<0.001
1360	15.05	16.55	1.5	<0.001
1361	18.4	19.9	1.5	<0.001
1362	22.2	23.7	1.5	0.002
1363	23.7	25.0	1.3	<0.001
1364	28.2	29.6	1.4	<0.001
1365	29.6	31.1	1.5	<0.001
1366	34.7	36.2	1.5	<0.001
1367	36.2	36.95	0.75	<0.001
1368	38.7	40.2	1.5	<0.001
1369	40.2	41.7	1.5	<0.001
1370	43.8	45.3	1.5	<0.001
1371	46.9	47.9	1.0	<0.001
1372	50.15	51.7	1.65	<0.001
1373	53.6	54.8	1.2	<0.001
1374	57.0	58.7	1.7	<0.001
1375	58.7	60.0	1.3	<0.001
1376	61.5	63.0	1.5	<0.001
1377	64.4	65.9	1.5	<0.001
1378	65.9	67.6	1.5	<0.001
1379	67.6	69.1	1.5	<0.001
1380	69.1	70.65	1.55	<0.001
1381	70.65	72.2	1.65	<0.001
1382	72.2	73.35	1.15	<0.001
1383	73.35	74.3	0.95	<0.001
1384	74.3	75.8	1.5	<0.001
1385	75.8	76.8	1.0	<0.001
1386	76.8	77.5	0.7	<0.001
1387	77.5	79.0	1.5	<0.001
1388	79.0	80.2	1.2	<0.001
1389	80.2	81.7	1.5	<0.001
1390	81.7	82.5	0.8	<0.001
1391	82.5	83.4	0.9	<0.001
1392	83.4	84.9	1.5	<0.001
1393	84.9	86.4	1.5	<0.001
1394	86.4	87.9	1.5	<0.001
1395	87.9	89.4	1.5	0.001
1396	89.4	90.9	1.5	0.001
1397	93.1	94.1	1.0	<0.001
1398	98.7	99.9	1.2	0.001
1399	99.9	100.6	0.7	0.001
1400	100.6	102.1	1.5	<0.001
1401	102.1	103.4	1.3	<0.001
1402	103.4	104.3	0.9	<0.001
1403	104.3	106.1	1.8	<0.001
1404	106.9	107.9	1.0	0.001
1405	109.8	110.8	1.0	0.019
1406	110.8	112.0	1.2	0.005

1407	115.1	116.8	1.7	0.030
1408	117.1	118.3	1.2	0.003
1409	120.9	122.4	1.5	0.002
1410	122.4	123.0	0.6	0.009
1411	123.0	124.5	1.5	<0.001 check
1412	124.5	125.7	1.2	<0.001
1413	125.7	126.3	0.6	<0.001
1414	126.3	127.8	1.5	0.002
1415	127.8	129.3	1.5	0.004
1416	129.3	130.8	1.5	0.002
1417	130.8	132.3	1.5	0.002
1418	132.3	133.8	1.5	0.005
1419	133.8	135.3	1.5	0.003
1420	135.3	136.2	0.9	0.004
1420	135.3	136.2	0.9	0.003 check
1421	136.2	137.7	1.5	<0.001
1422	137.7	139.3	1.6	<0.001
1423	139.3	140.3	1.0	<0.001
1424	141.3	142.3	1.0	0.010
1425	144.0	145.5	1.5	0.006
1426	152.0	153.5	1.5	0.027
1427	154.5	155.5	1.0	0.001

## DIAMOND DRILL RECORD

## LAIRD LAKE PROJECT

HOLE NUMBER: LL-89-8 LOCATION: Line 40+00W; 12+25S

AZIMUTH: 0 degrees DIP: -50 degrees LENGTH: 99.7m

DRILLED BY: N. Morissette CORE DIAMETER: BQ CASING: 11.6m

STARTED: March 12, 1989 FINISHED: March 13, 1989

LOGGED BY: Murray C. Rogers SYSTEM: Metric

ACID TESTS: 60.96m -43.5 degrees  
99.7m -41.5 degrees

FOOTAGE		DESCRIPTION
From	To	
0.0	11.6	OVERBURDEN
11.6	11.8	FELSIC MYLONITE; 6  Medium greyish-pink, well developed foliation at 45 degrees to the core axis consisting of alternating light/dark bands (<1-3mm), aphanitic, composed of silica, probable granodiorite originally but no remnant texture. Type 6  Sharp contact
11.8	12.3	MAFIC VOLCANIC; PROTOMYLONITE - MYLONITE; 1am  Dark grey, very fine grained (<1mm), weak to strongly developed, tight (<1mm) foliation at 45 degrees to the core axis, no original texture to weak remnant, moderate-strong, pervasive talc/carbonate alteration, minor calcite-filled fractures - veinlets, <0.5% disseminated pyrite. Type 1am.  Sharp contact
12.3	13.05	FELSIC MYLONITE; 6  Same as Type.  Sharp contact

- 13.05      14.8      MAFIC VOLCANIC; PROTOMYLONITE - MYLONITE; 1am  
Similar to Type; weak-moderate, pervasive talc/carbonate alteration, common calcite-filled fractures, weak-strong deformation, 0.5-1% disseminated pyrite, local chlorite development along fractures-foliation.  
Gradational contact.
- 14.8      20.3      BASALT FLOW; UNDEFORMED - PROTOMYLONITE; 1a-1am  
Dark grey, fine grained (< 1mm), massive to foliation at 45 degrees to the core axis, composition plagioclase and mafics: plagioclase/mafics: 35/65, <0.5% disseminated pyrite - locally to 3% along fractures, local talc/carbonate alteration, common, minor calcite-filled fractures. Type 1a.  
15.45 - 15.55 3% pyrite as disseminated and stringers parallel to the foliation.  
15.75 - 16.0 Total, pervasive, talc/carbonate alteration.  
Gradational contact
- 20.3      26.9      MAFIC VOLCANIC; PROTOMYLONITE - MYLONITE; 1am  
Similar to 13.05 - 14.8; foliation at 45 degrees to the core axis, moderate-strong talc/carbonate alteration, common, minor calcite + silica filled fractures-irregular, random, narrow (1-5mm) <0.5% pyrite.  
24.1 1cm wide pyrrhotite lens parallel to the foliation.  
24.3 - 25.5 Total pervasive talc/carbonate alteration.  
25.5 - 25.85 Medium pink "granitic" vein.  
Gradational contact
- 26.9      34.9      BASALT FLOW; UNDEFORMED - WEAK PROTOMYLONITE; 1a - 1am  
Similar to 14.8 - 20.3, <0.5% pyrite, local, weak talc/carbonate alteration, common, minor

calcite filled fractures.

30.9 - 31.1 Moderate-strong fracture-controlled talc/carbonate alteration.  
Gradational contact

34.9      37.7      MAFIC VOLCANIC; PROTOMYLONITE - MYLONITE; 1am

Weak to well developed foliation at 45-50 degrees to the core axis, local moderate-strong talc/carbonate alteration, large intervals of 50-100% silicification, 2-5% pyrite-pyrrhotite as disseminated and stringers - locally to 10% mainly along foliation surfaces, locally magnetic, local quartz veinlets.

34.9 - 35.1 Strong talc/carbonate alteration, 2-5% pyrite.  
35.1 - 36.0 75-100% silica, 2-10% pyrite-pyrrhotite

ASSAY \*\* SAMPLE NUMBER: 1438 // 34.9 - 36.4m // 0.012 oz Au/ton

36.0 - 36.1 Strong talc/carbonate alteration, 2-5% pyrite  
36.1 - 37.4 50-100% silica, 2-10% pyrite-pyrrhotite.  
37.4 - 37.55 Strong talc/carbonate alteration 2% pyrite  
37.55 - 37.7 50% silica, 5-10% pyrite - pyrrhotite

Gradational contact

37.7      40.2      BASALT FLOW; 1a

Similar to Type; massive, variable contamination from granodiorite, local recrystallization, grain size 1-3mm.

Sharp contact

40.2      42.4      GRANODIORITE; BIOTITIC; 4a

Medium greyish-pink, fine-medium grained (1-2mm), massive, equigranular, 10% quartz, 10% biotite, 80% feldspar, plagioclase > K-feldspar, 1-2% disseminated pyrite. Type 4a.

Sharp contact

- 42.4      43.5      BASALT FLOW; 1a  
Same as 37.7 - 40.2  
Sharp contact
- 43.5      44.2      MAFIC VOLCANIC; PROTOMYLONITE - MYLONITE; 1am  
Similar to Type; variably developed, tight foliation at 50 degrees to the core axis, moderate, pervasive talc/carbonate alteration, common calcite + silica veinlets.  
Gradational contact
- 44.2      75.05     BASALT FLOW; UNDEFORMED - PROTOMYLONITE;  
1a - 1am  
Similar to Type; massive to weak-strong foliation at 45-50 degrees to the core axis, common, local talc/carbonate alteration, generally fracture-foliation controlled of weak to moderate intensity, common calcite + silica and quartz veinlets - irregular-straight, random to parallel to foliation, narrow (1-10mm); 0.5% disseminated pyrite-locally to 2%.  
50.1 - 50.6 Medium pink "granitic" vein.  
56.2 - 57.8 Moderate fracture - controlled to pervasive talc/carbonate alteration.  
60.75 - 61.05 Strong talc/carbonate alteration, foliation at 45 degrees to the core axis.  
60.75 - 61.45 Common quartz veinlets, 0.5-1% pyrite.  
64.0 - 64.4 Medium pink, massive, "granitic" quartz vein.  
64.4 - 68.2 Moderate - strong talc/carbonate alteration, variably developed foliation at 45-60 degrees to the core axis, local quartz veinlets.  
68.2 - 69.2 Medium greyish-pink, massive, "granitic" vein.  
69.2 - 70.4 Moderate-strong talc/carbonate alteration, variable foliation at 45-65 degrees to the core axis, local quartz veinlets; 70.1 - 70.4 greyish-pink "granitic" vein.  
70.4 - 73.4 Strong - total, pervasive talc/carbonate alteration, common granodiorite contamination

Sharp contact

75.05      89.2      GRANODIORITE; BIOTITIC; 4a

Same as Type; fine grained (<1mm) near contacts increasing to 1-2mm towards centre, local basalt inclusions, talc/carbonate development along fractures near contacts, rare grey quartz veinlets, <0.5% disseminated pyrite, locally to 1-2%

76.6 - 76.75 Basalt inclusion, strong talc/carbonate alteration.

77.3 - 78.9 Higher quartz content (10-20%), 0.5-1% disseminated pyrite; probably a different intrusive phase.

Sharp contact

89.2      99.7      BASALT FLOW; 1a

Similar to Type, very common talc/carbonate alteration-weak to strong pervasive, local magnetite, <0.5% pyrite.

92.9 - 93.3 very strong, pervasive talc/carbonate alteration.

93.3 - 93.8 Granodiorite contamination

93.8 - 94.7 Strong, pervasive talc/carbonate alteration.

99.7      99.7      END OF HOLE

## DIAMOND DRILL HOLE LL-89-8

Location: Line 40+00 West; 12+25 South

SAMPLE NUMBER	FROM(m)	TO(m)	INTERVAL(m)	ASSAY(oz/ton)
1428	11.6	13.1	1.5	0.001
1429	13.1	14.6	1.5	<0.001 check
1430	14.6	16.1	1.5	<0.001
1431	19.8	21.3.	1.5	<0.001
1432	21.3	22.8	1.5	0.001
1433	22.8	24.3	1.5	0.001
1434	24.3	25.5	1.2	0.001
1435	25.9	26.9	1.0	<0.001
1436	30.1	31.1	1.0	0.001
1437	33.9	34.9	1.0	0.001
1438	34.9	36.4	1.5	0.012
1439	36.4	37.7	1.3	0.002 check
1440	40.5	42.0	1.5	<0.001
1441	43.7	44.6	0.9	<0.001
1442	46.4	47.4	1.0	<0.001
1443	50.9	51.9	1.0	0.001
1444	51.9	52.9	1.0	0.007
1445	56.2	57.8	1.6	0.001
1446	60.6	61.6	1.0	<0.001
1447	64.0	64.4	0.4	0.001
1448	64.4	65.9	1.5	<0.001 check
1449	65.9	67.4	1.5	0.001
1450	67.4	68.2	0.8	0.001
1451	68.2	69.2	1.0	<0.001
1452	69.2	70.7	1.5	<0.001
1453	70.7	72.2	1.5	<0.001
1454	72.2	73.3	1.1	0.001
1455	73.7	75.05	1.35	<0.001
1456	75.05	76.05	1.0	<0.001
1457	77.2	77.9	0.7	<0.001 check
1458	82.6	83.6	1.0	<0.001
1459	89.2	90.7	1.5	0.001
1460	92.3	93.3	1.0	0.004
1461	93.8	94.8	1.0	0.001

## DIAMOND DRILL RECORD

### LAIRD LAKE PROJECT

HOLE NUMBER: LL-89-9 LOCATION: Line 38+80W; 11+60S

AZIMUTH: 340 degrees DIP: -50 degrees LENGTH: 154.4m

DRILLED BY: N. Morissette CORE DIAMETER: BQ CASING: 1.9m

STARTED: March 13, 1989 FINISHED: March 14, 1989

LOGGED BY: Murray C. Rogers SYSTEM: Metric

ACID TESTS: 60.96m -41.5 degrees  
121.9m -41 degrees  
154.5m -41.5 degrees

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FOOTAGE		DESCRIPTION
From	To	
0.0	1.9	OVERBURDEN
1.9	8.0	MAFIC VOLCANIC; PROTOMYLONITE - MYLONITE; 1am  Dark grey, fine grained (<1mm), weakly-strongly developed foliation at 50-55 degrees to the core axis, original texture and composition not apparent, <0.5% disseminated pyrite, very common talc/carbonate alteration-fracture controlled to pervasive, local biotite alteration, common, minor calcite veinlets. Type 1am  1.9 - 3.05 Weak-moderate, pervasive talc/carbonate alteration 3.05 - 3.7 Weak (5-10%) biotite alteration, talc/carbonate along fractures. 3.7 - 5.2 Weak-moderate talc/carbonate alteration 5.2 - 5.9 Strong, pervasive talc/carbonate alteration. 5.9 - 8.0 Weak-moderate talc/carbonate alteration.
		Gradational contact
8.0	12.1	BASALT FLOW; 1a  Dark grey, fine grained (<1mm), massive to local foliation at 55 degrees to the core axis, composition plagioclase and mafics

(probably pyroxene), plagioclase/mafics: 35/65,  $\leq 0.5\%$  disseminated pyrite common, weak-moderate talc/carbonate alteration, local biotite alteration (5-20%), two alteration types alternate over short intervals, common, minor calcite  $\pm$  silica veinlets. Type 1a.

8.0 - 8.5 5-15% biotite alteration  
 8.5 - 8.8 Moderate talc/carbonate alteration  
 8.8 - 9.9 5-15% biotite alteration  
 9.9 - 11.5 Weak, pervasive talc/carbonate alteration.  
 11.5 - 12.1 Moderate-strong talc/carbonate alteration, foliation at 55 degrees to the core axis, local stringers of pyrite.

Sharp contact

12.1      13.5      GRANODIORITE; BIOTITIC; 4a

Medium pinkish grey, medium grained (1-2mm), massive, equigranular to porphyritic, 12.4 - 12.95 - 10% feldspar phenocrysts 3-5 mm; 10-15% quartz, 10-20% biotite, 65-80% feldspar, plagioclase > K-feldspar, 0.5% disseminated pyrite. Type 4a

Sharp contact

13.5      25.45      BASALT FLOW; 1a

Similar to Type; common, weak fracture-controlled talc/carbonate alteration, local, narrow intervals of biotite alteration (5-15%), generally massive but weak, local foliation at 55 degrees to the core axis,  $\leq 0.5\%$  disseminated pyrite, local calcite  $\pm$  silica and quartz veinlets.

Sharp contact

25.45      28.0      GRANODIORITE; BIOTITIC; 4a

Same as Type.

Sharp contact

28.0      38.05      BASALT FLOW; 1a

Similar to 13.5 - 25.45, weak-strong talc/carbonate alteration displaying local foliation, local silicification,  $\leq 0.5\%$  disseminated pyrite, local reddish-brown

biotite alteration (to 10%)

3

34.3 - 34.6 Moderate-strong talc/carbonate alteration, foliation at 50-55 degrees to the core axis, calcite-quartz veinlets.  
34.7 - 35.0 Grey quartz veining (10%) and silica alteration

ASSAY \*\* SAMPLE NUMBER: 1469 // 35.2 - 36.7m // 0.205 oz Au/ton

37.75 - 37.95 Strong, pervasive talc/carbonate alteration.

Sharp contact

38.05 41.75 DIORITE - GRANODIORITE DYKE; 2c

Medium grey, fine-medium grained (1-2mm), massive-weak grain alignment, equigranular, 10% quartz, 10-15% biotite, 75-80% plagioclase, 0.5% disseminated pyrite, Type 2c.

Sharp contact

41.75 53.5 BASALT FLOW; 1a

Similar to 28.0 - 38.05; common weak-strong talc/carbonate alteration, local biotite alteration, local silicification, <0.5% disseminated pyrite - locally to 3% as stringers.

42.45 - 42.75 10-25% biotite alteration

43.3 - 43.4 Quartz veinlets and talc/carbonate alteration at 50 degrees to the core axis, 2-3% pyrite as stringers.

43.4 - 44.0 10-15% biotite alteration

44.3 - 44.4 Common calcite-quartz veinlets

45.7 - 46.9 10-30% biotite alteration

46.9 - 48.4 Section of extensive clay/talc/carbonate alteration - total alteration, extensive calcite ± quartz veinlets, local stockwork-breccia.

48.8 - 49.1 Same as 46.9 - 48.4

49.1 - 52.7 Weak, fracture-controlled talc/carbonate alteration, local quartz veinlets.

52.7 - 53.5 Total pervasive silicification, 0.5-1% very fine pyrite.

Gradational contact

- 53.5      61.5      MAFIC VOLCANIC; PROTOMYLONITE - MYLONITE; 1am  
 Similar to Type; weak-strong foliation at 55-60 degrees to the core axis, variably altered, weak-strong talc/carbonate alteration, local silicification, 0.5% disseminated pyrite - locally to 3% as disseminated and stringers.  
 53.5 - 57.4 Weak, pervasive talc/carbonate alteration  
 57.4 - 58.2 Strong, pervasive talc/carbonate alteration  
 58.2 - 58.85 75-100% silica alteration, grey, massive quartz veining, local calcite.  
 58.85 - 61.5 Weak-moderate talc/carbonate alteration  
 61.2 - 61.4 Quartz veining and silica.  
 Gradational contact
- 61.5      75.05      BASALT FLOW; 1a  
 Similar to 41.75 - 53.5; generally unaltered to weak talc/carbonate alteration, local quartz veins with silicification, <0.5% pyrite.  
 67.1 - 67.4 Grey, massive quartz vein  
 67.75 - 67.9 Pervasive talc/carbonate alteration with quartz veinlets, 1-2% pyrite.  
 67.9 - 69.7 Grey, "granitic" vein - mixture of dioritic dyke material and aphanitic silica, 0.5% pyrite.  
 74.7 - 75.05 Strong, pervasive talc/carbonate alteration.  
 Sharp contact
- 75.05      154.5      BASALT - ULTRAMAFIC FLOWS; POSSIBLE KOMATIITE; 1a - 3  
 Dark grey, fine grained (<1mm), massive to very weak grain alignment at 60 degrees to the core axis, composition plagioclase and pyroxene: plagioclase/ pyroxene: 20-25/75-80, magnetite present as disseminations, clots and stringers in unaltered and talc/carbonate altered sections, not present in biotite altered section, <0.5% disseminated pyrite, common weak-strong, pervasive talc/carbonate alteration, local intervals of biotite alteration, minor, narrow (1-3mm) calcite + silica veinlets. Type 1a-3.

78.9 - 79.05 Moderate-strong talc/carbonate alteration.  
82.6 - 85.6 5-15% biotite alteration, 0.5% pyrite locally to 2% along fractures.  
90.3 - 95.4 Weak - moderate talc/carbonate alteration  
94.9 - 95.2 Intense talc/carbonate alteration.  
95.4 - 97.2 10-30% biotite alteration  
97.2 - 98.4 Moderate talc/carbonate alteration  
101.5 - 102.95 Weak-moderate talc/carbonate alteration  
102.95 - 104.2 10-50% biotite alteration  
104.2 - 107.3 Weak talc/carbonate alteration  
107.3 - 110.1 5-15% biotite alteration  
110.1 - 113.6 Weak talc/carbonate alteration  
113.6 - 114.6 5-20% biotite alteration  
114.6 - 116.9 Weak talc/carbonate alteration  
116.9 - 118.5 Moderate-strong talc/carbonate alteration  
118.5 - 120.9 Weak talc/carbonate alteration  
120.9 - 122.6 Moderate talc/carbonate alteration  
122.6 - 124.6 Weak talc/carbonate alteration  
124.6 - 127.05 5-25% biotite alteration;  
125.5 - 125.7, 1-2cm talc/carbonate veinlet,  
5% pyrite.  
127.07 - 130.2 Moderate-strong talc/carbonate alteration  
130.2 - 132.9 Weak talc/carbonate alteration  
132.9 - 138.0 Weak-moderate talc/carbonate alteration  
132.9 Local pyrite stringers along fractures  
138.0 - 143.15 Weak talc/carbonate alteration  
143.15 - 146.1 Moderate talc/carbonate alteration  
146.1 - 146.7 Weak talc/carbonate alteration  
146.7 - 151.8 Moderate-strong talc/carbonate alteration  
151.8 - 152.2 30% biotite alteration  
152.2 - 154.5 Weak-moderate talc/carbonate alteration.

154.5 154.5 END OF HOLE

NOTE: The magnetite content of the 75.05 - 154.5 unit is believed to be a primary constituent. The lack of magnetite in the biotite altered sections may be due to destruction during the alteration process. An alternate interpretation is that the magnetite is secondary and accompanied the talc/carbonate alteration.

## DIAMOND DRILL HOLE LL-89-9

Location: Line 38+80W; 11+60S

SAMPLE NUMBER	FROM(m)	TO(m)	INTERVAL(m)	ASSAY(oz/ton)
1462	5.1	6.1	1.0	0.004
1463	6.1	7.1	1.0	0.001
1464	11.1	12.1	1.0	<0.001
1465	16.2	17.2	1.0	<0.001
1466	19.1	20.1	1.0	0.001 check
1467	23.4	24.9	1.5	<0.001
1468	33.7	35.2	1.5	0.003
1469	35.2	36.7	1.5	0.205
1671	36.7	38.0	1.3	0.001
1470	42.6	43.6	1.0	<0.001
1471	45.6	46.9	1.3	<0.001
1472	46.9	48.5	1.6	<0.001
1473	48.5	49.5	1.0	<0.001
1477	52.9	53.5	0.6	<0.001
1478	55.0	56.0	1.0	<0.001
1479	57.2	58.2	1.0	<0.001
1480	58.2	58.85	0.65	<0.001
1481	58.85	60.0	1.15	<0.004
1482	60.0	61.5	1.5	0.002
1474	67.0	67.5	0.5	<0.001
1475	67.5	67.9	0.4	<0.001 check
1476	67.9	69.7	1.8	<0.001
1483	78.3	79.3	1.0	<0.001
1484	81.6	82.6	1.0	<0.001 check
1485	84.1	85.1	1.0	<0.001
1486	90.3	91.9	1.6	<0.001
1487	94.5	95.5	1.0	<0.001
1488	95.9	97.2	1.3	<0.001
1489	97.2	98.4	1.2	<0.001
1490	101.5	102.95	1.45	<0.001
1491	102.95	104.2	1.25	0.002
1492	104.2	105.2	1.0	<0.001
1493	107.3	108.0	0.7	<0.001 check
1494	109.1	110.1	1.0	<0.001
1495	110.1	111.1	1.0	<0.001
1496	113.6	114.6	1.0	<0.001
1497	116.9	118.4	1.5	<0.001
1498	120.9	121.9	1.0	<0.001
1499	121.9	122.6	0.7	<0.001
1500	125.4	126.0	0.6	<0.001
1501	126.0	127.05	1.05	<0.001
1502	127.05	128.05	1.0	<0.001 check
1503	132.7	134.2	1.5	<0.001
1504	134.2	135.7	1.5	<0.001
1505	135.7	137.2	1.5	<0.001
1506	137.2	138.1	0.9	<0.001
1507	143.1	144.6	1.5	<0.001

1508	144.6	146.1	1.5	<0.001
1509	146.7	148.2	1.5	<0.001
1510	150.8	151.8	1.0	<0.001
1511	151.8	152.3	0.5	<0.001 check
1512	152.3	153.3	1.0	<0.001 check

## DIAMOND DRILL RECORD

## LAIRD LAKE PROJECT

HOLE NUMBER: LL-89-10 LOCATION: Line 37+00W; 11+00S

AZIMUTH: 0 degrees DIP: -50 degrees LENGTH: 175.9m

DRILLED BY: N. Morissette CORE DIAMETER: BQ CASING: 1.8m

STARTED: March 15, 1989 FINISHED: March 17, 1989

LOGGED BY: Murray C. Rogers SYSTEM: Metric

ACIS TESTS:	60.96m	-47 degrees
	121.9m	-39 degrees
	175.9m	-39.5 degrees

FOOTAGE		DESCRIPTION
From	To	
0.0	1.8	OVERBURDEN
1.8	3.0	GRANODIORITE; BIOTITIC; 4a  Medium pinkish-grey, medium grained (2mm), massive, equigranular, 15-20% quartz, 10% biotite, 70-75% feldspar, plagioclase > K-feldspar, 0.5% disseminated pyrite. Type 4a  Sharp contact
3.0	3.4	MAFIC VOLCANIC (?) MYLONITE; 1am  Total, pervasive talc/carbonate alteration, tight (<1mm), foliation at 65 degrees to the core axis.  Sharp contact
3.4	4.0	FELSIC MYLONITE; 6  Light greyish-pink, aphanitic, well developed, tight (< 1-2mm), foliation at 65 degrees to the core axis consisting of alternating light/dark bands; composed totally of silica. Type 6.  Sharp contact

4.0	4.4	MAFIC VOLCANIC (?) MYLONITE; 1am Same as 3.0 - 3.4 Sharp contact
4.4	5.35	GRANODIORITE, BIOTITIC; 4a Same as Type Sharp contact
5.35	5.75	MAFIC VOLCANIC MYLONITE; 1am Strong, pervasive talc/carbonate alteration, foliation at 65 degrees to the core axis. Sharp contact
5.75	6.3	GRANODIORITE; BIOTITIC; 4a Same as Type Sharp contact
6.3	8.2	BASALT FLOW; 1a Dark grey, fine grained (1mm), massive, composition: plagioclase and pyroxene, plagioclase/pyroxene: 35/65, common contam- ination from granodiorite, <0.5% disseminated pyrite, local recrystallization, minor silica -filled fractures. Type 1a. Sharp contact
8.2	9.95	GRANODIORITE, BIOTITIC; 4a Same as Type Sharp contact
9.95	15.2	BASALT FLOW; 1a Same as Type Sharp contact

15.2	16.1	GRANODIORITE; BIOTITIC; 4a Same as type Sharp contact
16.1	18.8	BASALT FLOW; 1a Same as Type sharp contact
18.8	19.25	GRANODIORITE; BIOTITIC; 4a Same as Type Sharp contact
19.25	20.05	GRANODIORITE; BIOTITIC; 4a Same as Type Sharp contact
20.05	20.50	BASALT FLOW; 1a Same as Type Gradational contact over a few centimetres
20.50	24.45	GRANODIORITE; BIOTITIC; 4a Same as Type; local basalt inclusions Sharp contact
24.45	25.35	BASALT FLOW; 1a Same as Type Sharp contact
25.35	43.5	GRANODIORITE; BIOTITIC; 4a - 4c Similar to Type; local basalt inclusions and contamination. Gradational contact over a few centimetres.

- 43.5      44.6      BASALT FLOW; 1a  
Similar to Type; extensive granodiorite contamination.  
Gradational contact over several centimetres.
- 44.6      46.1      GRANODIORITE - MAFIC VOLCANIC; HYBRID; 4c  
Biotitic garnodiorite with significant basalt contamination, common silica-filled fractures-irregular to straight, generally random, narrow (1-3mm); 0.5%-1% disseminated pyrite.  
Gradational contact over several centimetres.
- 46.1      47.1      BASALT FLOW; 1a  
Similar to Type; common granodiorite contamination.  
46.3 - 46.4 Grey, massive quartz veining  
Sharp contact
- 47.1      48.2      GRANODIORITE; BIOTITIC; 4a  
Same as Type; common silica-filled fractures.  
Gradational contact over a few centimetres.
- 48.2      49.8      BASALT FLOW; 1a  
Similar to Type; common granodiorite contamination, 0.5-1% disseminated pyrite.  
Gradational contact over a few centimetres.
- 49.8      54.1      GRANODIORITE; 4a - 4c  
Similar to Type; common basalt contamination.  
53.05 - 53.25 Talc/carbonate altered basalt inclusion.  
Gradational contact over several centimetres
- 54.1      58.4      BASALT FLOW; (KOMATIITE ?); 1a  
Similar to Type; local granodiorite contamination, common weak-strong talc/carbonate alt-

eration, high magnetite content with talc/carbonate altered sections:

54.1 - 54.85 Granodiorite contaminated section  
54.85 - 55.1 Moderate, pervasive talc/carbonate alteration  
55.1 - 55.4 Granodiorite contamination  
55.4 - 56.15 Moderate talc/carbonate alteration  
56.15 - 56.6 Granodiorite contamination  
56.6 - 57.9 Moderate - strong, pervasive talc /carbonate alteration, 0.5% disseminated pyrite.  
57.9 - 58.4 Unaltered section

Sharp contact

58.4 59.8 GRANODIORITE; BIOTITIC; 4a

Same as Type

Sharp contact

59.8 66.6 BASALT (POSSIBLE KOMATIITE ?); 1a - 3

Dark grey-black, fine grained (<1mm), massive, composition: plagioclase = 25%, pyroxene = 75%, local, weak magnetite,  $\leq 0.5\%$  disseminated pyrite, common, weak-moderate, talc/carbonate alteration, local chlorite alteration. Type 1a - 3.

59.8 - 63.1 Weak to locally moderate talc/ carbonate alteration, common, local chlorite alteration, occasional calcite veinlet.

63.1 - 65.7 Unaltered section, 1% disseminated pyrite.

65.7 - 66.6 Weak talc/carbonate alteration, local silica alteration, local, weak (5-10%) biotite alteration, 0.5-1% pyrite.

Gradational contact

66.6 72.7 BASALT FLOW; PROTOMYLONITE - MYLONITE; 1am

Less altered sections-similar description to Type 1a - 3, weak to well developed tight ( $\leq 1-2\text{mm}$ ) foliation at 45 degrees to the core axis, unaltered to altered, common talc/carb -onate, local biotite alteration  $\leq 0.5\%$  disseminated pyrite - locally to 3%, minor

calcite ± silica veinlets. Type 1am.

66.6 - 67.1 Strong, pervasive talc/carbonate alteration

67.1 - 67.5 Weak talc/carbonate alteration

67.5 - 68.2 Strong talc/carbonate alteration

68.2 - 69.4 Weak (5-10%) biotite alteration, talc/carbonate along fractures.

69.4 - 70.2 Weak talc/carbonate alteration

70.2 - 70.8 Relatively unaltered

70.8 - 72.7 Weak talc/carbonate alteration

Sharp contact

72.7        73.6        GABBRO; PYROXENE PORPHYRY DYKE; 2d

Dark grey, pyroxene phenocrysts (2-4mm) in a fine grained (<1mm) groundmass, massive, porphyritic, 10% pyroxene phenocrysts, groundmass: 35% plagioclase, 65% pyroxene; anhedral phenocrysts.

Sharp contact

73.6        74.5        BASALT; PROTOMYLONITE - MYLONITE; 1am

Same as Type; foliation at 55-60 degrees to the core axis.

73.6 - 74.5 Weak - moderate talc/carbonate alteration

Gradational contact

74.5        101.65      BASALT FLOW; 1a

Similar to Type; <0.5% pyrite-pyrrhotite - locally to 2%, common, weak talc/carbonate alteration, fracture-foliation controlled at 60 degrees to the core axis, local quartz veinlets, local, narrow (cm), fracture-controlled silicification, rare, weak (5-10%) biotite alteration.

75.2 - 76.6 Weak, pervasive talc/carbonate alteration

97.9 - 98.6 5-10% biotite alteration

101.4 - 101.65 5-30% biotite alteration

Sharp contact

101.65      102.6      BASALT; LAPILLI TUFF; 1b  
Similar composition to 1a; rounded, elongate tuff clasts- chloritic, 2-5mm, elongate, aligned at 60 degrees to the core axis, 5-30% biotite alteration of groundmass, 0.5-1% disseminated pyrite. Type 1b  
Sharp contact

102.6      110.9      BASALT FLOW; (POSSIBLE KOMATIITE ?); 1a  
Similar to 74.5 - 101.65  
104.65 - 104.9 Weak - moderate, talc /carbonate alteration  
105.35 - 105.65 Moderate talc/carbonate alteration.  
106.6 - 107.1 Moderate talc/carbonate alteration  
110.1 - 110.25 Quartz veinlets-random, irregular, narrow (1-5mm), 20% of section.  
Sharp contact

110.9      111.9      QUARTZ VEIN  
Grey, aphanitic, massive quartz vein, 1-2% pyrite as disseminated, blebs and stringers, weak foliation at 60 degrees to the core axis  
Sharp contact

111.9      115.7      MAFIC VOLCANIC PROTOMYLONITE - MYLONITE; 1am  
Similar to Type; weak - well developed foliation at 60 degrees to the core axis, common, pervasive talc/carbonate alteration, local silica, 0.5-1% disseminated pyrite-pyrrhotite, locally to 10% as disseminated and stringers.  
112.3 - 112.9 Weak talc/carbonate alteration  
112.9 - 113.5 50-100% silica, 5-10% pyrite-pyrrhotite as disseminated and stringers, possible exhalite (le?)

ASSAY \*\* SAMPLE NUMBER: 1550 // 112.9 - 113.5m // 0.017 oz Au/ton  
113.5 - 113.9 Moderate talc/carbonate alteration  
113.9 - 114.2 Granodiorite dyke.

114.2 - 115.7 Weak - moderate, pervasive  
talc/carbonate alteration  
Gradational contact

115.7      120.6      BASALT FLOW; (POSSIBLE KOMATIITE ?); 1a  
Similar to 74.5 - 101.65  
116.1 - 116.75 75-100% massive grey silica,  
2-10% pyrite - pyrrhotite as disseminated and  
stringers; possible exhalite (1e?)  
116.75 - 119.5 Weak talc/carbonate alteration  
119.5 - 120.15 Moderate talc/carbonate alter-  
ation  
120.15 - 120.6 50-100% silica; 1-2% dissemin-  
ated pyrite  
Sharp contact

120.6      122.1      GRANODIORITE; BIOTITIC; 4a  
similar to Type  
Sharp contact

122.1      122.7      BASALT FLOW; 1a  
similar to Type; significant granodiorite  
contamination  
Sharp contact

122.7      128.25      GRANODIORITE; BIOTITIC; 4a  
similar to Type; 0.5-1% disseminated pyrite  
local biotite (10-20%) alteration, rare talc  
/carbonate developed along fractures, local  
basalt inclusions.  
122.7 - 123.3 Medium pink, massive,  
"granitic" vein.  
126.3 - 126.9 Granodiorite - basalt hybrid; 4c  
127.8 - 128.25 Medium pink, massive,  
"granitic" vein  
Sharp contact

128.25      137.85      BASALT FLOW; 1a  
Similar to Type; grain size (1mm), common and locally extensive granodiorite contamination.  
129.2 - 129.4 Medium pink, "granitic" vein  
129.65 - 132.0 10-30% chlorite alteration  
132.0 - 137.85 5-10% biotite alteration  
136.2 - 136.5 50% medium pink, "granitic" veining.  
Sharp contact

137.85      140.0      "GRANITIC" QUARTZ VEIN - DYKE  
Medium pink, fine grained (1mm), massive, 100% quartz.  
Sharp contact

140.0      143.9      BASALT FLOW; 1a  
Similar to Type; common granodiorite contamination.  
140.3 - 140.45 Pink, "granitic" vein  
143.6 - 143.9 Total, pervasive talc/carbonate alteration  
Sharp contact

143.9      146.5      "GRANITIC" QUARTZ VEIN  
Medium pink, fine grained (<1mm), massive  
Sharp contact

146.5      159.7      BASALT FLOW; 1a  
Similar to Type; common granodiorite contamination.  
146.5 - 147.1 10-30% biotite alteration  
147.1 - 148.4 50-75% "granitic" veining, milky white - light pink, aphanitic to fine grained (<1mm).  
148.4 - 148.95 10-20% biotite alteration  
148.95 - 149.15 "Granitic" vein  
149.4 - 149.9 "Granitic" vein  
149.9 - 153.4 5-15% biotite alteration  
153.4 - 155.0 Weak-moderate, fracture controlled talc/carbonate alteration

155.0 - 155.2 20% quartz veinlets - irregular random, narrow (1-10mm)  
155.2 - 158.75 5-15% biotite alteration  
158.75 - 159.35 Medium pink, massive, "granitic" vein  
158.9- 159.2 Granodiorite dyke  
159.45 - 159.7 "Granitic" vein, talc/carbonate alteration, along fractures, local molybdenite to 5%

Gradational contact

159.7      175.9      BASALT - ULTRAMAFIC FLOW; (KOMATIITE?); 3  
Dark grey-black, fine grained (<1mm), massive 15-20% plagioclase, 75-80% pyroxene, high magnetite content, < 0.5% disseminated pyrite-pyrrhotite, common talc/carbonate alteration.  
159.7 - 161.6 Common-extensive, fracture controlled talc/carbonate alteration with veinlets to 1cm  
161.6 - 162.3 Weak - moderate, pervasive talc /carbonate alteration  
167.9 - 169.8 Weak, pervasive talc/carbonate alteration, locally to 2% pyrrhotite along fractures  
174.6 - 175.9 Weak pervasive talc/carbonate alteration

175.9      175.9      END OF HOLE

## DIAMOND DRILL HOLE LL-89-10

Location: Line 37+00W; 11+00S

SAMPLE NUMBER	FROM(m)	TO(m)	INTERVAL(m)	ASSAY(oz/ton)
1513	3.0	4.3	1.3	0.002
1514	5.35	5.75	0.4	0.008
1515	8.2	9.2	1.0	0.001
1516	11.2	12.3	1.1	0.002
1517	17.2	18.75	1.55	<0.001
1518	22.5	23.5	1.0	0.003
1519	26.5	28.0	1.5	<0.001
1520	32.9	34.4	1.5	0.001
1521	37.65	38.65	1.0	<0.001
1522	43.5	44.6	1.1	0.001
1523	44.6	46.1	1.5	<0.001
1524	46.1	47.1	1.0	0.001
1525	47.1	48.2	1.1	0.001
1526	48.2	49.9	1.7	<0.001
1527	54.85	56.15	1.3	0.001
1528	56.4	57.9	1.5	<0.001
1529	59.8	61.3	1.5	<0.001
1530	63.1	64.6	1.5	0.001
1531	66.0	68.1	2.1	0.001
1532	68.1	69.4	1.3	0.003
1533	69.4	70.9	1.5	0.001
1534	70.9	72.1	1.2	0.001
1535	72.1	73.6	1.5	<0.001
1536	73.6	74.7	1.1	<0.001
1537	75.2	76.6	1.4	<0.001
1538	76.6	78.1	1.5	<0.001
1539	83.4	84.4	1.0	<0.001
1540	89.0	90.4	1.4	<0.001
1540	89.0	90.4	1.4	0.001
1541	91.9	92.9	1.0	0.001
1542	96.9	98.4	1.5	0.002
1543	101.4	102.7	1.3	0.001
1544	104.65	105.65	1.0	0.001
1545	105.65	106.3	0.65	0.001
1546	106.3	107.3	1.0	0.001
1547	110.0	110.9	0.9	0.001
1548	110.9	111.9	1.0	0.001
1549	111.9	112.9	1.0	0.001
1550	112.9	113.5	0.6	0.017
1551	113.5	115.0	1.5	0.003
1557	115.0	116.1	1.1	0.003
1552	116.1	116.75	0.65	0.006
1553	116.75	118.0	1.25	0.009
1554	118.0	119.0	1.0	0.001
1555	119.0	120.25	1.25	0.001
1556	120.25	120.7	0.45	<0.001
1558	121.3	122.8	1.5	0.003
1558	121.3	122.8	1.5	0.001
				check

1559	122.8	123.7	0.9	0.001
1560	127.8	128.4	0.6	0.001
1561	129.2	130.7	1.5	0.001
1562	130.7	132.0	1.3	<0.001
1563	133.2	134.2	1.0	<0.001
1564	136.35	137.85	1.5	<0.001
1565	137.85	138.9	1.05	<0.001
1566	138.9	140.0	1.1	<0.001
1567	142.4	143.9	1.5	<0.001 check
1568	143.9	145.4	1.5	0.001
1569	145.4	146.5	1.1	0.002
1570	146.5	147.1	0.6	0.001
1571	147.1	148.4	1.3	<0.001
1572	148.4	149.9	1.5	<0.001
1573	152.4	153.4	1.0	<0.001
1574	153.4	154.5	1.1	0.008
1575	154.5	155.5	1.0	<0.001
1576	158.75	159.2	0.45	<0.001 check
1577	159.2	160.7	1.5	<0.001
1578	160.7	162.2	1.5	<0.001
1579	167.9	168.9	1.0	0.003
1580	168.9	169.9	1.0	0.002
1581	173.1	174.4	1.3	0.001
1582	174.4	175.9	1.5	<0.001

## DIAMOND DRILL RECORD

### LAIRD LAKE PROJECT

HOLE NUMBER: LL-89-11                    LOCATION: Line 14+00W; 7+50S

AZIMUTH: 0 degrees                    DIP: -50 degrees                    LENGTH: 148.4m

DRILLED BY: N. Morissette                    CORE DIAMETER: BQ                    CASING: 3.65m

STARTED: March 18, 1989                    FINISHED: March 20, 1989

LOGGED BY: Viera Kovac                    SYSTEM: Metric

ACID TESTS:	60.9m	-44 degrees
	121.9m	-38 degrees
	148.4m	-38 degrees

FOOTAGE		DESCRIPTION
From	To	
0.0	3.0	OVERBURDEN
3.0	4.2	MAFIC MYLONITE; 1am  Very fine grained, moderately foliated, strongly silicified, pale to medium green volcanic. Non-carbonated, non-magnetic upto 50% silica; foliation at 40 degrees to the core axis. Abundant (10%) quartz-carbonate filled microfractures (ladder type veining), predominantly parallel to the foliation. No visible sulphides. Distinct downhole contact at 35 degrees to the core axis.
4.2	9.3	GRANODIORITE; PROTOMYLONITE; 4am  Very fine grained, moderately foliated, strongly silicified (upto 100% locally). The foliation is at 40 degrees to the core axis. Sparse to locally abundant 3-5% quartz filled microfractures. Almost no original textures, locally 5-10% fine grained dark mafic minerals appear as fracture fill near the downhole contact. Overall a medium grey colour with minor, local pinkish zones. Trace to 2% disseminated and banded stringers, pyrite, predominantly parallel to the foliation. Sharp downhole contact at 40 degrees to the core axis.

8.0 - 9.3 1-2% pyrite, pinkish-grey coloured unit.

9.3        15.9        GRANODIORITE; 4a

Fine to medium grained, massive to weakly foliated at 35 degrees to the core axis, overall a medium grey colour. Generally a well preserved original crystalline texture of equigranular 1-2mm diameter feldspar crystals. Abundant quartz filled micro-fractures (stockwork type). Moderate to strong (60-70%) local silicification, locally protomylonitic with an obliterated original texture. Trace disseminated pyrite. Sharp downhole contact 30 degrees to the core axis.

10.3 - 10.6 & 10.9 - 12.55 Strongly mylonitized, well developed foliation 40 degrees to the core axis. Original texture is almost completely destroyed. Trace - 1% disseminated pyrite, non-carbonated, non-magnetic, sharp contacts parallel to the foliation.

10.2 - 10.9 Somewhat of a brecciated texture where there is strong quartz veining (stockwork type). Trace pyrite associated with 1% bluish-grey quartz blebs.

15.9        17.4        GRANODIORITE; MYLONITE; 4am

Aphanitic to very fine grained, weak to moderately well foliated at 30 degrees to the core axis, medium grey overall colour. Sparse quartz-carbonate veining 3-5%, parallel to foliation, microfractures infilling predominantly near the uphole contact. Strong silicification 80%, trace disseminated pyrite. Sharp downhole contact 20 degrees to the core axis.

16.2 - 19.15 orangish-grey weak banding to the foliation.

17.4        19.15        BASALT; 1a

Fine grained, massive, overall a medium grey colour with 3%, 2-3mm diameter, subangular white plagioclase crystals through-out. Very

sparse <3%, thin 1-2mm wide quartz-carbonate stringers randomly oriented. Non-magnetic, non-carbonated, trace disseminated pyrite. Sharp downhole contact 35 degrees to the core axis.

19.15      20.1      GRANODIORITE; MYLONITE; 4am

Fine grained, weak-moderately foliated, medium grey dyke, with local 2-3cm wide areas of original crystalline texture, with equigranular plagiocalase crystals, orangish-grey in colour. Moderately silicified, abundant creamy coloured, randomly oriented quartz veinlets, 1-2mm wide.

20.1      38.2      SHEARED BASALT; 1am

Fine grained, moderately foliated, medium grey unit, strong local silicification, non-magnetic, minor micro-faults. Trace - 1% pyrite.

20.1 - 21.2 Minor, local microfaults with a displacement of 5mm along the core axis. Locally abundant (10%), thin (1-2mm) infilled microfractures. Trace to 1% subhedral pyrite parallel foliation.

21.2 - 22.0 Basalt; 1a

Fine grained, massive, weakly pervasively carbonated, non to very weakly silicified. Trace pyrite, gradational contacts.

22.0 - 23.5 Sheared Basalt; 1am

Similar to 20.1 - 21.2, except not as many quartz stringers and 15% stretched feldspathic grains (3-5mm long x 1-2mm wide). Trace disseminated pyrite.

23.5 - 24.9 Felsic Mylonite; 6

aphanitic to fine grained, well developed foliation 30 degrees to the core axis. Strongly (90-100%) silicified, non-carbonated, overall a medium grey unit, locally pinkish grey. 1%, fine grained disseminated pyrite. Poorly defined, gradational contacts.

24.9 -26.5 Sheared Basalt; 1am

Fine grained, moderately well foliated, medium grey unit, foliation at 30 degrees to the core axis. Minor, local microfaults with a displacement of 1-2mm, generally parallel to the core axis. Trace pyrite.

26.5 - 29.0 Sheared Basalt; 1am  
Aphanitic to fine grained, massive to weakly foliated, medium grey to pinkish-grey colour. Strongly silicified (80-90%). Trace pyrite. Foliation is 30 degrees to the core axis.

29.0 - 38.2 Sheared Basalt; 1am  
Similar to 24.9 - 26.5, with local stronger silicified sections at 31.9-32.5, foliation is 25 degrees to the core axis. Gradational downhole contact.

36.8 - 37.6 Moderately silicified with 1-2% fine grained disseminated pyrite.

38.2      46.1      SHEARED BASALT; 1am

Fine grained, well foliated, medium greenish-grey, locally magnetic, non-carbonated volcanic, with 15-20% granodioritic intervals of various thicknesses (1.3m-10cm). Locally abundant pyrite, upto 10% over 20cm. Pyrite appears as thin (1-2mm wide) stringers and bands parallel to the foliation. Foliation is 40 degrees to the core axis. The sulphides are predominantly associated with the granodioritic intervals and near the granodiorite/volcanic contacts.

38.2 - 38.4 5% pyrite; pyrite is associated with quartz veining in a basaltic unit

38.8 - 39.0 10% pyrite in a very weakly porphyritic granodioritic unit; with 20%, 1-2mm diameter quartz grains (eyes) parallel to the foliation. 4am

39.7 - 40.1 10% pyrite in a weakly magnetic granodiorite, contacts are parallel to the foliation at 25 degrees to the core axis. Pyrite occurs disseminated and as stringers in a 4am.

ASSAY \*\* SAMPLE NUMBER: 1612 // 42.5 - 43.5m // 0.010 oz Au/ton

43.6 - 44.2 Poorly developed granodiorite; 4am; Only a weak remnant crystalline texture with sparse 3-5%, 1-2mm diameter quartz grains (eyes). Well foliated at 30 degrees to the core axis. Trace to 1% local pyrite stringers parallel to the foliation.

ASSAY \*\* SAMPLE NUMBER: 1613 // 43.5 - 44.8m // 0.245 oz Au/ton

46.1      71.4      GRANODIORITE; PROTOMYLONITE; 4am

Strong local mylonitic sections range from 50cm to 1m. Fine to medium grained, well foliated granodiorite, overall a medium grey colour with local pinkish-orange-grey zones (30-50 cm wide) near the downhole contact. Strong, local pyrite banding parallel to the foliation at 30 degrees to the core axis. Generally a well preserved crystalline texture with 2-3mm diameter quartz eyes oriented somewhat parallel to the foliation. Sharp downhole contact at 30 degrees to the core axis.

46.3 - 46.75 10-15%, 2-3mm wide pyrite bands parallel foliation, weakly magnetic.

48.3 Magnetic section with minor biotite alteration.

47.2 - 47.6; 48.7 - 49.0; 50.5 - 50.9; 51.4-51.75; 5-10%, 2-3mm wide pyrite bands parallel foliation, with weak magnetic zones.

53.4 - 54.0 2-3% pyrite, as disseminated and as hairline stringers.

56.35 - 56.5 Basaltic interval, sharp contacts

58.8 - 59.1 & 59.7 - 59.85 Basaltic interval, weakly foliated, non-siliceous, sharp contacts parallel foliation 25 degrees to the core axis, rare pyrite on foliation planes.

63.1 - 63.8 & 64.15 - 65.4 Granodiorite, quartz-feldspar porphyry with 40%, 2-3mm diameter, subhedral crystals.

61.5 - 62.5; 63.8 - 64.15; 65.2 - 62.9 Strong Mylonite Sections. Fine grained, somewhat porphyritic 20%, 1-2mm diameter quartz grains in a siliceous aphanitic felsic, flesh coloured matrix. 10-15% brown biotite defines the foliation, 20 degrees to the core axis. Trace to 1% local hairline pyrite stringers parallel foliation.

71.4      78.25      BASALT; 1a

Fine grained, weakly foliated, medium green basalt. 30%, biotite defines the foliation; 20 degrees to the core axis. Non-magnetic, non-carbonated, non-siliceous, relatively homogenous unit. Rare, 1-2% hairline quartz-carbonate stringers, trace pyrite. Sharp downhole contact 20 degrees to the core axis.

73.95 - 76.8 Granodiorite; 4am  
Similar to granodiorite unit above, with sharp uphole and downhole contacts at 35 and 45 degrees to the core axis, respectively.  
Trace pyrite.

76.2 - 76.3 Basalt interval

77.35 - 77.8 Granodiorite; 4am  
Similar to granodiorite unit above, sharp uphole and downhole contacts at 20 and 75 degrees to the core axis, respectively.

78.25 84.8 GRANODIORITE; PROTOMYLONITE; 4am

Similar to granodiorite unit above, sharp downhole contact at 90 degrees to the core axis.

79.0 - 82.8 Strongly silicified Mylonitized granodiorite. Fine to medium grained, moderately foliated, light grey unit, non-carbonated with upto 80% silica. 10-15% fine grained biotite defines the foliation at 20 degrees to the core axis. 1% disseminated pyrite. Gradational contacts.

84.8 123.8 BASALT; 1a

Very fine to medium grained, weak to moderate foliation, medium green-grey in colour. 30-35% biotite defines the foliation. Non-magnetic, non-carbonated, locally coarser grained, but predominantly a fine grained unaltered flow, with local protomylonitic sections (range from 20-70cm wide). Trace to 1% local pyrite. This unit is very fine grained near the uphole contact.

84.8 - 86.75 Very fine grained, medium dark grey flow. Minor, local microfault at 85.1 with a displacement of 2mm.

86.75 - 87.2 Similar to 71.4 - 78.25; Distinct uphole and downhole contacts at 15 and 45 degrees to the core axis respectively.

87.2 - 87.3 Granodiorite dyklet, similar to the granodiorite unit between 78.25 - 84.8

87.3 - 87.6 Similar to 84.8 -. 86.75 Basalt; 1% pyrite associated with a thin 3mm wide quartz-carbonate stringer.

87.6 - 109.2 Fine to medium grained basalt; massive to very weakly foliated, greenish-grey coloured volcanic flow. 5-20%, 2-5mm diameter anhedral to subhedral, white

plagioclase crystals.

92.2 3cm wide milky white quartz vein at 65 degrees to the core axis.  
109.2 - 111.2 Granodiorite dyke; silicified, fine to medium grained, mafic minerals define the foliation, 30 degrees to the core axis  
20-25% mafics (biotite and hornblende?)  
Trace pyrite, non-carbonated, light grey coloured unit.

113.5 - 114.5 Protomylonitic basalt; 1%, hairline pyrite stringers parallel to the foliation at 35 degrees to the core axis.

114.3 chlorite-quartz-carbonate stringer, 2-3 cm wide with a trace pyrite.

114.55 2cm wide quartz-carbonate stringer

115.4 - 116.0 10% quartz-carbonate stringers with biotite alteration and trace pyrite.

116.9 - 117.25 Chlorite alteration associated with quartz-carbonate stringers, 1% hairline pyrite stringers parallel foliation.

119.5 - 120.1 Protomylonitic basalt; 50% chlorite alteration associated with quartz-carbonate stringers, 1% pyrite stringers parallel foliation.

121.0 - 121.9 & 123.1 - 123.8 Chlorite alteration associated with wispy quartz-carbonate stringers. Trace to 1% pyrite, hairline stringers parallel foliation. Sharp downhole contact 20 degrees to the core axis.

123.8      128.7      GRANODIORITE; PROTOMYLONITE; 4am

Medium to coarse grained, weakly foliated, medium grey overall colour. Trace to 1% local hairline pyrite stringers. Obstructed, broken downhole contact. Locally siliceous, this granodiorite unit is similar to 46.1-71.4

124.1 - 124.15 & 127.95 - 128.3 Basalt; 1% pyrite, 10% chlorite - quartz - carbonate stringers, obstructed, broken contacts.

128.7      148.4      BASALT; PROTOMYLONITE; 1am

Fine grained, weak to moderately foliated, greenish - grey overall colour. Minor, somewhat undeformed, intervals. Local, weak to moderately silicified sections (upto 50% silica), locally magnetic and minor chlorite

associated with quartz stringers. Trace pyrite, pyrrhotite.

133.45 - 134.15 Strong chlorite alteration associated with thin (1-2cm wide) quartz stringers.

133.9 5% pyrrhotite over 10cm  
134.5 - 135.9 80% silica, weakly magnetic (1-2% pyrrhotite). Minor, microfault at 135.4 with a displacement of 3mm.

139.4 - 140.6 Locally upto 80% silica, with local magnetic sections, non-carbonated.

143.45 - 144.05 Unsilicified basalt, 20% biotite alteration, non-carbonated with weak magnetic sections (pyrrhotite?)

148.4        148.4        END OF HOLE

## DIAMOND DRILL HOLE LL-89-11

Location: Line 14+00W; 7+50S

SAMPLE NUMBER	FROM(m)	TO(m)	INTERVAL(m)	ASSAY(oz/ton)
1583	3.0	3.6	0.6	0.001
1584	3.6	5.0	1.4	<0.001
1585	5.0	6.5	1.5	0.002
1585	5.0	6.5	1.5	0.001 check
1586	6.5	8.0	1.5	0.001
1587	8.0	9.3	1.3	<0.001
1588	9.3	10.9	1.6	<0.001
1589	10.9	12.55	1.65	0.008
1590	12.55	13.55	1.0	<0.001
1591	13.55	15.0	1.45	<0.001
1592	15.0	15.9	0.9	<0.001
1593	15.9	17.4	1.5	<0.001
1594	17.4	19.15	1.75	<0.001 check
1595	19.15	20.1	0.95	<0.001
1596	20.1	21.2	1.1	<0.001
1597	21.2	22.0	0.8	<0.001
1598	22.0	23.5	1.5	<0.001
1599	23.5	24.9	1.4	<0.001
1600	24.9	26.5	1.6	<0.001
1601	26.5	27.5	1.0	0.001
1602	27.5	29.1	1.6	<0.001
1603	29.1	30.5	1.4	<0.001
1604	30.5	31.9	1.4	0.001
1605	31.9	33.35	1.45	0.001
1606	33.35	34.9	1.55	0.001
1607	34.9	36.3	1.4	<0.001
1608	36.3	38.2	1.9	<0.001
1609	38.2	40.1	1.9	0.003
1610	40.1	41.6	1.5	0.001
1611	41.6	42.5	0.9	0.002
1612	42.5	43.5	1.0	0.010
1612	42.5	43.5	1.0	0.011 check
1613	43.5	44.8	1.3	0.245
1614	44.8	46.4	1.3	0.001
1615	46.1	47.6	1.5	0.003
1616	47.6	49.0	1.6	0.002
1617	49.0	50.5	1.5	0.002
1618	50.5	52.0	1.5	0.003
1619	52.0	53.5	1.5	0.001
1620	53.5	55.0	1.5	<0.001
1621	55.0	56.5	1.5	<0.001
1621	55.0	56.5	1.5	0.001 check
1622	56.5	57.9	1.4	0.001
1623	57.9	58.75	0.85	0.001
1624	58.75	60.15	1.4	0.001
1625	60.15	61.6	1.45	0.001
1626	61.6	63.1	1.5	0.002

1627	63.1	64.6	1.5	0.001
1628	64.6	65.9	1.3	0.001
1629	67.2	68.7	1.5	0.001
1630	68.7	70.15	1.45	<0.001 check
1631	70.15	71.4	1.25	<0.001
1632	71.4	72.9	1.5	0.001
1633	75.3	76.8	1.5	<0.001
1634	76.8	78.25	1.45	<0.001
1635	78.25	79.0	0.75	<0.001
1636	79.0	80.5	1.5	<0.001
1637	80.5	82.0	1.5	0.001
1638	82.0	82.8	0.8	0.002
1639	82.8	84.4	1.6	<0.001 check
1640	84.8	86.75	1.95	<0.001
1641	86.75	88.0	1.25	<0.001
1642	90.5	91.8	1.3	0.003
1643	91.8	93.3	1.5	0.001
1644	94.7	96.3	1.6	<0.001
1645	98.7	99.7	1.0	0.006
1646	102.7	103.7	1.0	0.001
1647	105.3	106.3	1.0	0.001
1648	107.9	109.2	1.3	0.003
1648	107.9	109.2	1.3	0.002 check
1649	109.2	110.2	1.0	0.001
1650	110.2	112.05	1.85	0.001
1651	112.05	113.5	1.45	0.003
1652	113.5	114.9	1.4	0.004
1653	115.2	116.2	1.0	0.001
1654	116.45	117.45	1.0	0.002
1655	118.0	119.5	1.5	0.001
1656	119.5	120.5	1.0	0.001
1657	122.3	123.8	1.5	0.002
1657	122.3	123.8	1.5	0.005 check
1658	123.8	124.8	1.0	0.001
1659	125.0	126.0	1.0	0.001
1660	127.8	128.7	0.9	<0.001
1661	129.1	130.6	1.5	0.001
1662	132.8	134.15	1.35	<0.001
1663	134.15	135.9	1.75	<0.001
1664	139.4	140.6	1.2	<0.001
1665	140.8	142.3	1.5	<0.001
1666	142.3	143.5	1.2	<0.001 check
1667	143.5	144.05	0.55	<0.001
1668	144.05	145.1	1.05	<0.001
1669	145.1	146.55	1.45	<0.001
1670	146.55	147.95	1.4	<0.001

## DIAMOND DRILL RECORD

### LAIRD LAKE PROJECT

HOLE NUMBER: LL-89-12 LOCATION: Line 12+00W; 4+40S

AZIMUTH: 0 degrees DIP: -50 degrees LENGTH: 142.3m

DRILLED BY: N. Morissette CORE DIAMETER: BQ CASING: 2.55m

STARTED: March 20, 1989 FINISHED: March 21, 1989

LOGGED BY: Murray C. Rogers SYSTEM: Metric

ACID TESTS: 60.96m -44 degrees  
121.9m -48 degrees  
142.3m -49 degrees

FOOTAGE		DESCRIPTION
From	To	
0.0	2.55	OVERBURDEN
2.55	31.4	GRANODIORITE; BIOTITIC; 4a  Medium pinkish-grey, medium grained (2-3mm), massive, equigranular, 10-15% quartz, 10-15% biotite, 70-80% feldspar, plagioclase > K-feldspar, 0.5% disseminated pyrite, local basalt inclusions, locally common, light green, silica-filled fractures-veinlets-irregular, random, narrow (1-10mm), local stockwork. Type 4a.  4.8 - 5.2 Extensive contamination from basalt 4.1 - 5.6 Common-extensive, light green silica veinlets - local stockwork 18.8 - 19.1 Common silica veinlets 25.0 - 25.3 Extensive silica veinlets to stockwork development 26.5 - 26.65 Extensive silica veinlets to stockwork 28.1 - 28.5 Common to extensive silica veinlets; local stockwork 29.4 - 31.4 Common silica veinlets; local stockwork.  Sharp contact

31.4      41.5      HORNBLENDITE; 3b      2

Dark grey-black medium grained (2-3mm), massive, equigranular, >90% hornblende, low-high magnetite content, variable pyrite-nil to 5% as disseminated blebs and stringers, common granodiorite contamination, local, minor silica veinlets-irregular, random, narrow (1-5mm). Type 3b

31.4 - 37.6 Common granodiorite contamination  
33.7 - 33.85 2% disseminated pyrite  
34.4 - 38.35 2-5% pyrite, disseminated, blebs and stringers  
38.7 - 39.0 2-5% pyrite

Sharp contact

41.5      47.85      GABBRO; 2a

Dark grey, medium grained (2mm), massive, equigranular, 35-45% plagioclase, 55-65% pyroxene, <0.5% pyrite, common to locally extensive silica veinlets-irregular, random, narrow (1-5mm), local stockwork, local talc development along fractures. Type 2a

41.5 - 42.0 Extensive silica veinlets; local silicification to 50%  
42.0 - 42.9 Extensive talc development along fractures-broken core; fault (?).

Gradational contact

47.85      55.5      BASALT FLOW; (POSSIBLE KOMATIITE ?); 1a

Dark grey, fine grained (<1mm), massive, 25-35% plagioclase, 65-75% pyroxene, low-high magnetite content, <0.5% disseminated pyrite, common gabbro contamination near contact, Common talc development along fractures-locally extensive; common, locally developed silica veinlets. Type 1a (kom.?).

47.85 - 53.8 Weak talc alteration along fractures  
48.15 - 48.35 Extensive fracturing; fault(?)  
50.65 - 51.3 Extensive fracturing; fault(?)  
51.7 - 52.5 Extensive fracturing; fault(?)  
53.8 - 55.5 Moderate-strong, pervasive talc alteration; local extensive fracturing from 54.5 - 55.0; fault (?)

Gradational contact

55.5      67.9      BASALT FLOW; (THOLEIITE ?); 1a

Similar to Type; less mafic, 45-50% plagioclase, 50-55% pyroxene, no magnetite, common (5%) to locally extensive silica veinlets - irregular, random, narrow (1-5mm), local stockwork, local silicification, little or no talc alteration, <0.5% disseminated pyrite - locally to 1%, weak foliation at 55 degrees to the core axis. Type 1a (thol.).

55.55 - 55.95 25-50% silica, stockwork of silica veinlets.

55.95 - 65.2 Common (5%) silica veinlets; local stockwork; local silica.

66.9 - 67.9 Moderate pervasive talc alteration, extensively fractured-broken; fault (?)

Sharp contact

67.9      94.4      BASALT FLOW; KOMATIITE ?; 1a

Same as Type 1a (kom.); magnetite content; weak - strong, fracture - controlled talc alteration.

70.7 - 71.9 Extensively fractured; fault zone; strong talc alteration

74.1 - 76.6 Moderate - strong talc alteration, extensive fracturing; local faults 74.5 - 75.0 & 76.4 - 76.6

80.6 - 83.3 Strong talc alteration, extensive fracturing; fault zone

83.5 - 84.4 Strong talc alteration, extensive fracturing; fault zone.

84.9 - 87.5 Strong talc alteration, extensive fracturing; fault zone.

90.3 - 91.2 Strong talc alteration, extensive fracturing; fault zone.

92.2 - 92.5 Strong talc alteration, extensive fracturing; fault zone.

92.9 - 93.2 Strong talc alteration, extensive fracturing; fault.

Sharp contact

94.4      98.65      GRANODIORITE; BIOTITIC; 4a  
similar to Type; 0.5% disseminated pyrite-  
locally to 2-3%, common to locally extensive  
silica veinlets - light green to grey,  
irregular, generally random, narrow (.1-5mm),  
local stockwork.  
  
94.4 - 95.3 Extensive silica veinlets, local  
stockwork, 1-3% disseminated pyrite.  
96.3 - 96.45 Pink, massive, aphanitic quartz  
vein.  
97.0 - 97.3 Stockwork of silica veinlets.  
97.6 - 98.4 70% pink, massive, aphanitic  
quartz veining.  
  
sharp contact  
  
98.65      100.55      BASALT FLOW; 1a  
similar to Type 1a (thol.); 0.5% disseminated  
pyrite.  
  
98.65 - 98.9 30% silicification.  
  
Sharp contact  
  
100.55      126.9      GRANODIORITE; 4a  
same as 94.4 - 98.65; common to locally  
extensive silica veinlets, local stockwork.  
  
101.2 - 102.2 very common (5-10%) to local  
stockwork silica veinlets  
102.1 - 102.2; 2cm wide quartz vein.  
103.8 - 105.4 Very common (5-10%) to local  
stockwork of silica veinlets.  
108.8 - 110.0 Very common (5-10%) to local  
stockwork of silica veinlets.  
123.7 - 126.9 Extensive (>10%) to stockwork  
of silica veinlets.  
  
Sharp contact  
  
126.9      129.3      BASALT FLOW; 1a  
similar to Type 1a (thol.); weak - moderate,  
pervasive talc alteration.  
  
Sharp contact

129.3      142.3      GRANODIORITE; 4a

Same as 100.55 - 126.9; common to extensive silica veinlets, local stockwork and pervasive silicification, 0.5% pyrite.

129.3 - 131.6 Common to extensive (5-15%) silica veinlets, local stockwork.

131.6 - 132.65 Extensive (15-25%) silica veinlets, common stockwork, local pervasive silica.

132.65 - 137.8 Pervasive silica veinlets-stockwork grading to 100% silica; local quartz veinlets to 2cm widths, local foliation at 65 degrees to the core axis.

137.8 - 142.3 Common to (5%) silica veinlets; local quartz veinlets upto 1cm width; concentration of veinlets decreases downhole to 1-2% at 142.3.

142.3      142.3      END OF HOLE

## DIAMOND DRILL HOLE LL-89-12

Location: Line 12+00W; 4+40S

SAMPLE NUMBER	FROM(m)	TO(m)	INTERVAL(m)	ASSAY(oz/ton)
1672	2.55	4.1	1.55	0.001
1673	4.1	5.6	1.5	0.001
1674	8.2	9.2	1.0	<0.001
1675	12.9	14.4	1.5	<0.001
1676	18.1	19.6	1.5	<0.001
1677	24.2	25.3	1.1	0.001
1678	26.4	27.4	1.0	<0.001
1679	28.1	29.6	1.5	<0.001
1680	29.6	30.6	1.0	0.001
1681	30.6	31.4	0.8	0.001 check
1682	33.1	35.2	2.1	0.001
1683	35.2	36.7	1.5	0.001
1684	36.7	38.2	1.5	0.001
1685	38.2	39.0	0.8	0.002
1686	41.0	42.0	1.0	0.001
1687	43.5	44.5	1.0	<0.001
1688	50.5	52.0	1.5	<0.001
1689	52.0	52.6	0.6	0.001
1690	54.2	55.5	1.3	0.001
1690	54.2	55.5	1.3	<0.001 check
1691	55.5	57.0	1.5	<0.001
1692	57.0	58.5	1.5	0.001
1693	58.5	60.0	1.5	<0.001
1694	60.0	61.5	1.5	0.001
1695	61.5	63.0	1.5	<0.001
1696	63.0	64.5	1.5	<0.001
1697	64.5	65.2	0.7	<0.001
1698	66.9	67.9	1.0	0.002
1699	70.4	71.6	1.2	0.001
1699	70.4	71.6	1.2	<0.001 check
1700	73.1	74.1	1.0	<0.001
1701	74.1	75.6	1.5	0.001
1702	75.6	77.1	1.5	0.002
1703	80.6	82.1	1.5	<0.001
1704	82.1	83.0	0.9	0.001
1705	83.0	83.9	0.9	<0.001
1706	83.9	85.4	1.5	<0.001
1707	85.4	86.8	1.4	0.001
1708	86.8	87.8	1.0	<0.001 check
1709	90.2	91.2	1.0	<0.001
1710	91.9	92.5	0.6	<0.001
1711	92.5	93.6	1.1	<0.001
1712	94.4	95.6	1.2	0.001
1713	95.6	97.1	1.5	<0.001
1714	97.1	98.4	1.3	<0.001
1715	98.4	99.4	1.0	<0.001
1716	101.2	102.3	1.1	<0.001

1717	103.8	105.4	1.6	<0.001
1717	103.8	105.4	1.6	0.001 check
1718	107.0	108.0	1.0	0.001
1719	108.8	110.3	1.5	0.001
1720	113.4	114.9	1.5	<0.001
1721	117.6	119.1	1.5	<0.001
1722	119.1	120.5	1.4	<0.001
1723	120.5	122.0	1.5	0.001
1724	122.0	123.4	1.4	0.001
1725	123.4	124.9	1.5	<0.001
1726	124.9	125.9	1.0	<0.001
1726	124.9	125.9	1.0	0.001 check
1727	125.9	126.9	1.0	0.001
1728	129.2	130.7	1.5	<0.001
1729	130.7	132.2	1.5	<0.001
1730	132.2	133.7	1.5	<0.001
1731	133.7	134.85	1.15	<0.001
1732	134.85	136.35	1.5	<0.001
1733	136.35	137.8	1.45	<0.001
1734	137.8	139.3	1.5	<0.001
1735	140.9	141.9	1.0	<0.001 check

## DIAMOND DRILL RECORD

## LAIRD LAKE PROJECT

HOLE NUMBER: LL-89-13 LOCATION: Line 11+75W; 4+32.5S  
 AZIMUTH: 170 degrees DIP: -50 degrees LENGTH: 197.2m  
 DRILLED BY: N. Morissette CORE DIAMETER: BQ CASING: 1.75m  
 STARTED: March 22, 1989 FINISHED: March 24, 1989  
 LOGGED BY: Murray C. Rogers SYSTEM: Metric  
 ACID TESTS: 63.1m -48.5 degrees  
 124.05m -47 degrees  
 197.2m -46 degrees

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FOOTAGE		DESCRIPTION
From	To	
0.0	1.75	OVERBURDEN
1.75	6.4	GRANODIORITE; BIOTITIC; 4a  Medium pinkish-grey, fine-medium grained (1-2mm), massive, equigranular, 10-15% quartz, 10% biotite, 75-80% feldspar, plagioclase > K-feldspar, <0.5% disseminated pyrite, common silica veinlets - locally extensive to stockwork-light green, irregular, random and narrow (1-5mm), local silicification. Type 4a.  3.8 - 4.5 Extensive (10%) silica veinlets; 3.9 - 4.1 80-100% silicification 5.1 - 5.35 Extensive (30%) silica veinlets; 6.1 - 6.4 10-15% silica veinlets.  Sharp contact
6.4	12.85	GABBRO; 2a  Dark grey, medium grained (2mm), massive, equigranular, 25-35% plagioclase, 65-75% pyroxene, occasional calcite or silica veinlets - irregular - straight, random, narrow (<1-2mm). Type 2a.

12.25 - 12.85 5% silica veinlets; local  
silica  
Sharp contact

12.85      33.8      BASALT FLOW; 1a

Dark grey, fine grained (<1mm), massive,  
composition: 30-40% plagioclase, 60-70%  
pyroxene, <0.5% disseminated pyrite, common  
silica and calcite veinlets-irregular to  
straight, random, narrow (1-10mm), common  
gabbro contamination, local, minor talc  
development along fractures. Type 1a.

16.3 - 17.4 Common to locally extensive  
stockwork (5-40%) of silica veinlets.  
21.2 - 21.6 5% quartz veinlets up to 1.5cm  
width.  
22.4 - 23.95 50-100% gabbro contamination  
24.6 - 25.7 Common (2-5%) quartz veinlets  
25.8 2cm wide quartz vein  
25.9 - 26.3 Extensive gabbro contamination  
26.9 - 27.3 Extensive gabbro contamination  
27.2 - 28.1 Common (5%) quartz veinlets; 10-  
40% silica.

Gradational contact over 30 cm.

33.8      38.9      GABBRO; 2a

Dark grey, medium grained (2-3mm), massive,  
equigranular, 50% plagioclase, 50% pyroxene,  
0.5% disseminated pyrite-locally to 1%, local  
basalt inclusions and contamination, common,  
pink, aphanitic quartz veins sub-parallel to  
core axis.

Gradational contact over 50 cm.

38.9      44.05      BASALT FLOW; 1a

Same as Type

39.4 - 39.8 Common silica veinlets (5-10%);  
local silica to 100%  
40.5 - 41.1 Common (5%) silica veinlets;  
common silica (50-100%).  
41.75 - 42.4 50% silica alteration

Gradational contact over 20cm

- 44.05      59.1      GABBRO; DIORITE; 2a  
Similar to 33.8 - 38.9; common basalt inclusions and contamination, minor silica veinlets.  
48.9 - 53.1 Mixed section - gabbro with very common basalt inclusions, contamination and narrow intervals.  
52.5 - 52.75 Pervasive (50%) stockwork of light green silica veinlets.  
54.2 - 55.05 Interval of mainly basalt  
55.8 - 56.8 Interval of mainly basalt; talc alteration along fractures, extensive broken core.  
\*\* 52.7 - 56.4 Mixed up core by drillers.  
Sharp contact
- 59.1      61.4      FELSIC MYLONITE; 6  
Light buff-grey, aphanitic, massive, 100% silicification, 1% fine, disseminated pyrite, 5% light green-grey silica veinlets - irregular to straight, random, narrow (1-5mm). Type 6.
- Sharp contact
- 61.4      64.25      MAFIC VOLCANIC; PROTOMYLONITE - MYLONITE; lam  
Medium grey, aphanitic - very fine grained (<1mm), weak, tight (<1mm) foliation at 25-30 degrees to the core axis consisting of alternating light/dark bands, variably silicified from 50-100%, 0.5-1% disseminated pyrite, 1-2% silica veinlets - irregular to straight, random, narrow (1-5mm). Type lam.
- Gradational contact
- 64.25      70.15      FELSIC MYLONITE; 6  
Similar to Type; massive to weak foliation at 30-40 degrees to the core axis, 70-100% silica, 0.5-1% disseminated pyrite, common to extensive (5-20%) silica veinlets - local stockwork.  
67.4 - 67.6 Talc alteration along fractures; no silica

68.1 - 68.3 Talc alteration along fractures;  
no silica  
Sharp contact

70.15 72.8 GABBRO; 2a  
Similar to Type; 0.5-1% disseminated pyrite,  
1-2% silica veinlets  
Sharp contact

72.8 75.55 FELSIC MYLONITE; 6  
Same as Type; weak foliation at 25-30 degrees  
to the core axis, consisting of alternating  
light/dark bands, 100% aphanitic silica, 0.5-  
1% disseminated pyrite.  
Sharp contact

75.55 76.25 BASALT FLOW; (KOMATIITE ?); 1a  
Dark grey, fine grained (<1mm), massive, 20-  
30% plagioclase, 70-80% pyroxene, significant  
magnetite content, <0.5% disseminated pyrite,  
local silica, local common silica veinlets.  
Gradational contact

76.25 76.95 MAFIC VOLCANIC MYLONITE; 1am  
Similar to type; weak foliation at 25-30  
degrees to the core axis, variably  
silicified from 10-100%, common to extensive  
stockwork (10-50%) of silica veinlets, 0.5-1%  
disseminated pyrite.  
Sharp contact

76.95 78.45 GABBRO; 2a  
Same as Type  
Sharp contact

78.45 80.6 BASALT ASH FALL TUFF; 1c  
Dark grey, fine grained (<1mm), massive,  
plagioclase 50%; pyroxene 50%, 0.5%  
disseminated pyrite. Type 1c.

79.05 - 79.3 Basalt flow  
Sharp contact

80.6      83.7      MAFIC VOLCANIC PROTOMYLONITE - MYLONITE; 1cm  
Similar to Type; weak to well developed foliation at 25-30 degrees to the core axis, variably silicified (10-100%), local silica veinlets generally parallel to the foliation, 0.5-1% disseminated pyrite.  
80.6 - 81.9 50-75% silica  
81.9 - 83.7 75-100% silica  
Sharp contact

83.7      91.9      GABBRO; 2a  
Same as Type; 1-2% silica veinlets, <0.5% disseminated pyrite  
86.1 - 86.3 1-2cm light grey-pink quartz vein sub-parallel to the core axis.  
Sharp contact

91.9      96.15      FELSIC MYLONITE; 6  
Same as Type; 100% silicification, massive to foliated at 25-30 degrees to the core axis, 0.5% disseminated pyrite.  
Sharp contact

96.15      98.6      MAFIC VOLCANIC MYLONITE; 1cm  
Similar to Type; foliation at 25-30 degrees to the core axis, 100% silica, 0.5% pyrite.  
97.1 - 97.6 50-75% silicified basalt ash fall tuff, 1% pyrite. 1cm  
Sharp contact

98.6      99.4      GABBRO; 2a  
Same as Type.

99.4      104.6      MAFIC VOLCANIC PROTOMYLONITE -MYLONITE; 1cm  
Similar to Type; foliation at 25-30 degrees to the core axis, 100% silica, 0.5%

disseminated pyrite, local quartz veinlets.

100.1 - 100.5 Fine grained (1mm) gabbro dyke.  
101.9 - 102.8 Remnant tuff (1-2mm) texture,  
1cm.

102.8 - 103.1 Massive flow (1am)  
103.1 - 104.6 Remnant tuff (1-2mm) texture;  
1cm.

Sharp contact

104.6      107.8      GABBRO; 2a

Same as Type.

Sharp contact

107.8      136.4      MAFIC VOLCANIC PROTOMYLONITE - MYLONITE; 1am

Similar to Type; foliation at 25-30 degrees  
to the core axis, 50-100% silica, 0.5-1%  
disseminated pyrite, 1-2% silica, veinlets,  
occasional quartz veinlet up to 1cm width.

110.0 - 111.6 Remnant tuff (<1-2mm) texture;  
1cm.

113.7 - 113.9 Fine grained (1mm) gabbro dyke;  
2a

116.9 - 117.35 Fine grained (1mm) gabbro  
dyke; 2a

120.0 - 121.1 1-2% pyrite as disseminations  
and stringers.

122.3 - 124.2 2-5% pyrite as disseminations  
and as stringers.

125.1 - 125.6 Remnant tuff (1-2mm) texture;  
1cm

126.2 - 126.35 Grey quartz vein; 1-2% pyrite

135.6 - 136.1 Remnant tuff (<1mm) texture;  
1cm

136.1 - 136.4 1-2% disseminated pyrite

Sharp contact

136.4      143.2      GABBRO; 2a

Same as Type; 0.5-1% disseminated pyrite.

Sharp contact

- 143.2      151.7      MAFIC VOLCANIC PROTOMYLONITE - MYLONITE; 1cm  
Similar to Type; foliation at 25 degrees to  
the core axis, 75-100% silica, 1% silica  
veinlets, 0.5% disseminated pyrite, locally  
to 2%, occasional grey quartz veinlets up to  
1cm widths.  
Sharp contact
- 151.7      153.2      GABBRO; 2a  
Similar to Type; fine grained (1-2mm)  
Sharp contact
- 153.2      163.25     MAFIC VOLCANIC PROTOMYLONITE - MYLONITE; 1cm  
Same as 143.2 - 151.7  
154.7 - 162.2 Common (2-10%) silica veinlets  
light grey, generally irregular, random,  
narrow (1-10mm), local stockwork.  
Sharp contact
- 163.25     166.05     GABBRO; 2a  
Similar to Type; fine grained (1-2mm).  
Sharp contact
- 166.05     180.95     MAFIC VOLCANIC PROTOMYLONITE - MYLONITE; 1cm  
Similar to Type; foliation at 25-30 degrees  
to the core axis, 75-100% silica, 0.5%  
disseminated pyrite, 1% silica veinlets,  
occasional quartz veinlets up to 1cm.  
171.7 - 172.2 1-2% disseminated pyrite  
172.4 - 172.8 Fine grained (1mm) remnant  
tuff; 1cm.  
173.0 - 173.6 10% silica veinlets  
173.55 - 173.9 Fine grained (1mm) remnant  
tuff; 1cm.  
175.35 - 175.55 Fine grained (1mm) gabbro  
dyke; 2a  
179.0 1.5cm wide grey quartz veinlet  
180.2 - 180.7 Fine grained (1mm) remnant  
tuff; 1cm.  
Sharp contact

180.95      184.05      GABBRO; FELDSPAR PORPHYRY; 2b  
Dark grey, feldspar phenocrysts (2-5mm) in a fine grained (<1mm) groundmass, massive, porphyritic, 5-10% subhedral - euhedral plagioclase phenocrysts in a groundmass of about 25% plagioclase and 75% pyroxene, 0.5% pyrite, 1-2% silica veinlets. Type 2b.  
183.45 - 183.7 Fine grained (1mm) gabbro; 2a  
Sharp contact

184.05      197.2      MAFIC VOLCANIC MYLONITE; 1am  
Same as 166.05 - 180.95; foliation at 25 degrees to the core axis, 80-100% silica, <0.5% disseminated pyrite.  
191.5 - 191.65 Gabbro dyke; 2a  
193.6 - 194.3 Fine grained (1mm) remnant tuff; 1cm

197.2      197.2      END OF HOLE

## DIAMOND DRILL HOLE LL-89-13

Location: Line 11+75W; 4+32.5S

SAMPLE NUMBER	FROM(m)	TO(m)	INTERVAL	ASSAY (oz/ton)
1736	3.5	5.0	1.5	<0.001
1737	5.0	6.4	1.4	<0.001
1738	12.2	12.85	0.65	<0.001
1739	14.8	16.3	1.5	<0.001
1740	16.3	17.8	1.5	<0.001
1741	20.4	21.9	1.5	0.001
1742	24.6	25.4	0.8	<0.001
1743	25.7	26.7	1.0	<0.001
1744	28.6	29.6	1.0	<0.001 check
1745	31.3	32.4	1.1	0.001
1746	36.3	37.3	1.0	0.001
1747	39.3	40.3	1.0	0.001
1748	40.3	41.3	1.0	<0.001
1749	41.7	42.7	1.0	<0.001
1750	49.0	50.3	1.3	<0.001
1751	52.5	53.1	0.6	<0.001
1752	55.8	56.8	1.0	<0.001
1753	59.1	60.2	1.1	<0.001 check
1754	60.2	61.4	1.2	0.002
1755	61.4	62.7	1.3	<0.001 check
1756	62.7	64.25	1.55	0.001
1757	64.25	65.5	1.25	0.001
1758	65.5	67.0	1.5	<0.001
1759	67.0	68.3	1.3	<0.001
1760	68.3	69.3	1.0	<0.001
1761	69.3	70.15	0.85	<0.001
1762	72.8	74.3	1.5	0.001
1763	74.3	75.55	1.25	<0.001
1764	75.55	76.95	1.4	0.008
1765	80.6	82.1	1.5	<0.001 check
1766	82.1	83.0	0.9	<0.001
1767	83.0	84.0	1.0	<0.001
1768	85.9	86.4	0.5	<0.001
1769	91.9	92.9	1.0	<0.001
1770	92.9	94.4	1.5	<0.001
1771	94.4	96.3	1.9	<0.001
1772	96.3	97.75	1.45	<0.001
1773	97.75	99.7	2.05	<0.001
1774	99.7	100.7	1.0	<0.001
1774	99.7	100.7	1.0	0.001 check
1775	100.7	101.7	1.0	<0.001
1776	101.7	102.4	0.7	0.001
1777	102.4	103.85	1.45	<0.001

1778	103.85	104.6	0.75	<0.001
1779	107.8	109.3	1.5	<0.001
1780	109.3	110.9	1.6	<0.001
1781	110.9	112.4	1.5	<0.001
1782	112.4	113.9	1.5	0.001
1783	113.9	115.1	1.2	0.001 check
1784	115.1	116.6	1.5	<0.001
1785	116.6	118.15	1.55	<0.001
1786	118.15	119.65	1.5	<0.001
1787	119.65	121.0	1.35	<0.001
1788	121.0	122.3	1.3	<0.001
1789	122.3	123.3	1.0	0.003
1790	123.3	124.3	1.0	0.002
1791	124.3	125.8	1.5	0.001
1792	125.8	127.3	1.5	0.002 check
1793	127.3	128.8	1.5	<0.001
1794	128.8	130.3	1.5	0.001
1795	130.3	131.8	1.5	<0.001
1796	131.8	133.3	1.5	<0.001
1797	133.3	134.8	1.5	<0.001
1798	134.8	136.4	1.6	<0.001
1799	143.2	144.7	1.5	<0.001
1800	144.7	146.2	1.5	<0.001
1801	146.2	147.7	1.5	<0.001 check
1802	147.7	149.2	1.5	<0.001
1803	149.2	150.7	1.5	<0.001
1804	150.7	151.7	1.0	<0.001
1805	153.1	154.35	1.25	<0.001
1806	154.35	155.85	1.5	<0.001
1807	155.85	157.1	1.25	<0.001
1808	157.1	158.6	1.5	<0.001
1809	158.6	159.9	1.3	<0.001
1810	159.9	161.4	1.5	0.001 check
1811	161.4	162.4	1.0	<0.001
1812	162.4	163.25	0.85	<0.001
1813	166.05	167.5	1.45	0.001
1814	167.5	168.45	0.95	<0.001
1815	168.45	169.95	1.5	0.002
1816	169.95	171.45	1.5	<0.001
1817	171.45	172.9	1.45	0.003
1818	172.9	174.4	1.5	<0.001
1819	174.4	175.5	1.1	<0.001 check
1820	175.5	177.0	1.5	<0.001
1821	177.0	178.4	1.4	<0.001
1822	178.4	179.9	1.5	<0.001
1823	179.9	180.95	1.05	<0.001
1824	184.05	185.35	1.3	<0.001
1825	185.35	186.85	1.5	<0.001
1826	186.85	188.3	1.45	<0.001
1827	188.3	189.5	1.2	0.001
1828	189.5	191.0	1.5	<0.001 check
1829	191.0	192.5	1.5	<0.001
1830	192.5	194.0	1.5	<0.001
1831	194.0	195.5	1.5	<0.001

1832      195.5      197.2      1.7      <0.001 check

DIAMOND DRILL RECORD

LAIRD LAKE PROJECT

HOLE NUMBER: LL-89-14 LOCATION: Line 18+00W; 4+35S

AZIMUTH: 0 degrees DIP: -50 degrees LENGTH: 194.1m

DRILLED BY: N. Morissette CORE DIAMETER: BQ CASING: 11.4m

STARTED: March 27, 1989 FINISHED: March 29, 1989

LOGGED BY: Viera Kovac SYSTEM: Metric

ACID TESTS: 60.95m -48 degrees  
121.9m -46 degrees  
194.1m -43 degrees

From	To	FOOTAGE	DESCRIPTION
0.0	11.4		OVERBURDEN
11.4	54.9		MAFIC VOLCANIC; KOMATIITE ?; 1a  Aphanitic to very fine grained, weak to locally moderately foliated, purplish-grey colour overall, with local light to medium grey sections. Magnetic, locally carbonated, hard and blocky in sections. Pervasive carbonate near the uphole contact associated with quartz stringers parallel to the foliation at 55 degrees to the core axis. Minor reddish, hematitic staining associated with 1% pyrite. Pyrite is generally associated with quartz-carbonate stringers. Minor basaltic intervals ranging from 1-5m.
		11.4 - 12.5	10% quartz-carbonate stringers parallel to the foliation, reddish and greenish staining (alteration?) associated with quartz-carbonate stringers. 1% pyrite (pyrrhotite??) parallel to the foliation, local, minor 1mm diameter magnetite crystals.
		17.4 - 18.05	Komatiite Aphanitic to very fine grained, well foliated, light grey magnetic, moderately well carbonated with local pervasive sections. Very minor reddish staining (hematite?), associated with quartz-carbonate

stringers. Trace pyrite. Gradational uphole contact; broken, obscured downhole contact.

18.05 - 20.25 Basalt

Fine grained, massive, medium green, non-magnetic, non-carbonated unit with very sparse <3%, thin (2-3mm wide) quartz-carbonate blebs. Very minor, local light green talc altered veinlets 2mm wide. 5% biotite alteration, trace pyrite, Sharp downhole contact 40 degrees to the core axis.

20.25 - 20.6 Komatiite

Similar to 17.4 - 18.05, sharp downhole contact, perpendicular to the core axis.

20.6 - 21.35 Pyroxene Porphyry Dyke

40%, 5mm diameter subhedral to euhedral pyroxene crystals in a very fine grained 15-20% brown and black biotite rich matrix. Broken, obscured downhole contact.

21.35 - 25.4 Komatiite

Similar to 17.4 - 18.05, with a 10cm wide quartz-carbonate vein near the downhole contact.

25.4 - 30.7 Basalt

Fine grained, weakly foliated, medium green unit with 30-40% brown biotite alteration. Non-magnetic, non-carbonated. Trace local disseminated pyrite, abundant (15%) hairline quartz stringers randomly oriented. Local, very minor talc alteration associated with quartz-carbonate veinlets. Broken, obscured uphole contact and downhole contact.

ASSAY \*\* SAMPLE NUMBER: 1842 // 28.5 - 29.9m // 0.010 oz Au/ton

26.1 - 26.7 Komatiite interval; 90% blocky core.

30.7 - 34.4 70% blocky core

35.3 - 35.6 Quartz-carbonate vein

35.7 - 37.1 Minor, 2-3% hematitic staining

40.8 - 41.8 Basalt

20-25% biotite alteration, fine grained, weakly foliated unit at 40 degrees to the core axis. Non-magnetic with sparse 2% thin (1-2mm wide) quartz-carbonate stringers parallel foliation. Minor hematitic stained chlorite. Broken, obscured uphole and downhole contacts.

42.4 - 44.8 1-2% hematitic stained chlorite

49.0 - 63.1 50% blocky core

54.9      64.85      BASALT; 1a

Aphanitic to very fine grained, massive to locally very weakly foliated, greenish-grey unit with 5% biotite alteration. Non-magnetic, minor komatiitic intervals (20-50cm wide). Rare greenish talc altered veinlets, 2-3mm wide. Very minor, local reddish hematitic staining with sparse (<3%) wispy carbonate stringers. Trace pyrite. Locally very blocky core. Sparse <3% wispy carbonate stringers. Gradational downhole contact

64.85      79.1      BASALT; KOMATIITE?; 1a

Very fine grained, massive, magnetic, medium to dark grey, non-carbonated unit with 3-5% black hairline stringers randomly oriented. Rare, thin (3-4mm wide) carbonate stringers predominantly 55 degrees to the core axis. Rare trace pyrite on fractured surfaces. Very minor (<1%) black biotite associated with quartz-carbonate stringers.

69.7 - 69.8 4cm wide bottle green quartz-carbonate vein.

79.1      79.8      DIORITE DYKE; 2c

Fine grained to medium grained, massive, medium grey, crystalline with a weak salt and pepper texture. 5% mafic minerals (biotite/hornblende); 50% plagioclase; 2% pyrite; 3% pyrrhotite. Sharp uphole and downhole contacts perpendicular to the core axis.

79.8      87.0      HORNBLENDITE; 3b

Medium to coarse grained, massive, medium green, non-magnetic unit. Rare, thin (1-2mm wide) wispy carbonate stringers. 99%, 5mm-2cm long euhedral hornblende crystals. Crystalline texture, with no visible sulphides. Broken obscured downhole contact.

87.0      100.2      MAFIC VOLCANIC BRECCIA; 1a

Predominantly brecciated flow composed of 45%, 1mm diameter to 3cm X 8cm elongated, lensoidal, light to medium grey lithic clasts in a very fine grained, greenish-grey matrix.

Magnetic, non-carbonated unit, moderately foliated 35 degrees to the core axis. Broken, obscured downhole contact.

89.95 - 90.75 Felsic Dyke

Fine grained, massive, medium grey, magnetic weakly carbonated dyke with 1% biotite alteration and 1% pyrite, 1-2% pyrrhotite. Sharp uphole and downhole contact at 35 degrees to the core axis.

100.2      169.5      BASALT; KOMATIITE?; 1a

Aphanitic to fine grained, massive to locally very weakly foliated, medium grey unit. Magnetic with sparse 5%, black hairline stringers, very rare carbonate and trace rare pyrite.

97.5 - 108.7 25% blocky core

109.4 - 109.8 30% carbonate alteration

116.8 - 117.6 Amphibolite with 2% carbonate alteration with minor reddish hematitic staining associated with carbonate.

117.6 - 118.2 100% blocky core

118.0 - 122.2 Basalt

Fine grained, massive, medium green, non-magnetic with sparse, 2% thin (2mm wide) wispy carbonate stringers. Rare trace pyrite. Obscured, broken uphole and downhole contacts.

121.1 - 128.8 15% blocky core

133.2 - 135.0 3% thin greenish talc-carbonate stringers randomly oriented.

139.7 - 153.0 20% blocky core

156.3 - 164.7 20% blocky core

169.5      170.8      BASALT; 1a

Fine grained, strongly foliated, pale green, talcose unit with a very porous appearance. Foliation is 35 degrees to the core axis. Non-magnetic, non-carbonated, no visible sulphides, Minor, thin quartz-carbonate stringers near the uphole contact. Broken and blocky gradational uphole contact, broken, obscured downhole contact.

169.4 - 169.8 100% blocky core

170.8      194.1      GRANODIORITE; MYLONITE; 4a

Locally siliceous, coarse grained, weak to strongly foliated, tan to pinkish-orange unit. Where the core is coarse grained it is equigranular, however, the siliceous strongly mylonitized sections are very fine grained, some mylonitized sections are deformed (microfolded and faulted). Minor microfaults near the uphole contact with a displacement of 1-2mm. No visible sulphides, non-magnetic, non-carbonated with sparse (5%), thin (1-3mm) wide, quartz-carbonate stringers, predominantly at 35 degrees to the core axis.

170.8 - 172.1 Moderate to strongly mylonitized section with a foliation 35 degrees to the core axis.  
173.0 - 173.5 Strongly mylonitized section with minor folding, very siliceous.  
176.9 - 178.0 Weak to moderately mylonitized section.

194.1      194.1      END OF HOLE

## DIAMOND DRILL HOLE LL-89-14

Location: Line 18+00 West; 4+35 South

SAMPLE NUMBER	FROM(m)	TO(m)	INTERVAL(m)	ASSAY (oz/ton)
1833	11.4	12.8	1.4	0.001
1834	12.8	14.3	1.5	<0.001
1835	17.4	18.05	1.5	<0.001
1836	18.05	18.9	0.85	0.001
1837	18.9	20.25	1.35	0.001
1838	20.25	20.6	0.35	0.001
1839	24.0	25.4	1.4	<0.001
1840	25.4	26.8	1.4	0.001
1841	26.8	28.5	1.5	0.002
1842	28.5	29.9	1.4	0.005
1842	28.5	29.9	1.4	0.010 check
1843	29.9	30.7	0.8	0.001
1844	30.7	32.0	1.3	<0.001
1845	34.5	35.7	1.2	0.001
1846	35.7	37.1	1.4	<0.001
1847	40.8	41.8	1.0	<0.001
1848	41.8	42.8	1.0	0.001
1849	42.4	44.8	2.4	0.001
1850	47.9	49.0	1.1	<0.001
1851	52.2	53.7	1.5	<0.001
1851	52.2	53.7	1.5	0.001 check
1852	53.7	55.0	1.3	0.001
1853	55.0	56.0	1.0	<0.001
1854	60.0	61.35	1.35	<0.001
1855	63.1	64.1	1.0	<0.001
1856	68.0	69.2	1.2	<0.001
1857	69.2	70.3	1.1	<0.001
1858	72.2	73.2	1.0	<0.001
1859	78.0	79.1	1.1	<0.001
1860	79.1	79.8	0.7	<0.001 check
1861	79.8	81.25	1.45	<0.001
1862	84.0	85.0	1.0	<0.001
1863	89.1	89.95	0.85	0.001
1864	89.95	90.75	0.8	<0.001
1865	90.75	92.2	1.45	<0.001
1866	95.7	96.7	1.0	<0.001
1867	101.15	102.6	1.45	<0.001
1868	106.0	107.0	1.0	0.001
1869	111.0	112.0	1.0	<0.001 check
1870	114.3	115.75	1.45	<0.001
1871	116.3	117.15	0.85	<0.001
1872	118.6	119.9	1.3	<0.001
1873	126.0	127.1	1.1	<0.001
1874	133.0	134.5	1.5	<0.001
1875	134.5	136.0	1.5	<0.001
1876	144.0	145.0	1.0	<0.001
1877	148.4	149.4	1.0	<0.001
1878	150.2	151.5	1.3	<0.001 check

1879	159.6	160.6	1.0	<0.001
1880	165.05	166.05	1.0	<0.001
1881	168.5	169.5	1.0	<0.001
1882	169.5	170.8	1.3	<0.001
1883	170.8	171.7	0.9	<0.001
1884	171.7	173.0	1.3	<0.001
1885	173.0	173.6	0.6	<0.001
1886	173.6	175.0	1.4	<0.001
1887	175.0	176.5	1.5	0.001
1887	175.0	176.5	1.5	<0.001 check
1888	176.5	178.0	1.5	<0.001
1889	178.0	179.0	1.0	<0.001
1890	185.0	186.0	1.0	<0.001
1891	191.1	192.6	1.5	<0.001

## DIAMOND DRILL RECORD

## LAIRD LAKE PROJECT

HOLE NUMBER: LL-89-15                    LOCATION: Line 19+00W; 4+62.5S  
 AZIMUTH: 180 degrees        DIP: -50 degrees        LENGTH: 136.2m  
 DRILLED BY: N. Morissette    CORE DIAMETER: BQ    CASING: 3.66m  
 STARTED: March 30, 1989        FINISHED: March 31, 1989  
 LOGGED BY: Murray C. Rogers        SYSTEM: Metric  
 ACID TESTS: 60.69m    -47 degrees  
               136.2m    -46 degrees

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FOOTAGE		DESCRIPTION
From	To	
0.0	3.66	OVERBURDEN
3.66	6.8	DIORITE; 2c  Medium grey, medium grained, (1-2mm), massive, equigranular, 5% quartz, 50-60% plagioclase, 35-45% pyroxene, <0.5% disseminated pyrite, locally to 1%. Type 2c.  6.05-6.8 10% coarse (2-3mm), dark brown biotite.  Sharp contact
6.8	8.0	GABBRO; 2a  Dark greenish-grey, fine-medium grained (1-2mm), massive, equigranular 55-65% pyroxene, 35-45% plagioclase, <0.5% disseminated pyrite. Type 2a.  6.8 - 7.2 5-20% coarse (2-5mm), dark brown biotite 6.8 - 7.6 Significant magnetite content. 7.6 - 7.75 Pyroxene Porphyry Gabbro Dyke; 2d  Sharp contact

8.0

17.4

## BASALT FLOW; KOMATIITE?; 1a

Dark grey, very fine grained (<1mm), massive, weak, irregular flow banding locally, estimated composition: 20-30% plagioclase, 70-80% pyroxene, significant magnetite content as disseminations and stringers, <0.5% disseminated pyrite, local minor talc development along fractures. Type 1a(kom.)

14.1 - 15.2 Extensive fractured zone, possible fault, minor talc along some surfaces.

Indistinct gradational contact.

17.4

26.1

## BASALT FLOW; THOLEIITE?; 1a

Dark grey, fine grained (<1mm), massive, 30-40% plagioclase, 60-70% pyroxene, 0.5% disseminated pyrite, no magnetite, locally common quartz +calcite veinlets, upto 2cm widths - irregular to straight, generally random, local silicification, minor, local talc development along fractures. Type 1a (thol.)

18.3 - 21.9 Common (2-10%) quartz+calcite veining, individual veinlets up to 2cm width, local stockwork, local silicification (10-50%)

22.5 - 23.3 25-50% silicification.

23.9 - 24.3 20-30% silicification.

Gradational contact

26.1

28.7

## MAFIC VOLCANIC PROTOLONITE - MYLONITE; 1am

Medium grey, aphanitic - very fine grained (<1mm), weak to well developed, tight (<1mm) foliation at 30-35 degrees to the core axis consisting of light/dark banding, original texture destroyed, 50-100% silicification 2-15% fine brown biotite, <0.5% disseminated pyrite - locally to 1% common to 5% quartz veinlets generally parallel to foliation, local foliation distortion with foliation reversals, small scale folding.

Sharp contact

28.7

136.2

BASALT FLOW; UNDEFORMED - PROTOMYLONITE;  
1a - 1am

Similar to Type 1a (thol.); weak foliation at 30-35 degrees to the core axis, local quartz veinlets, 0.5%-1% disseminated pyrite.

29.7 - 30.0 Diorite dyke; 2c, 1% disseminated pyrite

30.6 - 31.2 Protomylonite; 1am; foliation at 30-45 degrees to the core axis, 25-75% silica, 5% quartz veinlets parallel to the foliation <5% medium brown biotite.

31.2 - 31.6 25-50% silica

34.2 - 34.35 3cm wide quartz vein at 30 degrees to the core axis

35.3 - 35.5 10% quartz veinlets random to sub-parallel to the core axis.

35.7 - 36.3 Grey quartz - calcite vein

40.2 - 40.25 20% quartz - calcite veinlet stockwork.

41.1 - 41.7 5% silica veinlets, local silica to 50%

48.2 - 49.35 Protomylonite; 1am; 30-70% silica, 0.5-1% pyrite-pyrrhotite, 5% silica veinlets, weak foliation at 45 degrees to the core axis.

51.7 - 52.6 5-10% silica veinlets - local stockwork

52.9 - 53.3 5-10% silica veinlets

54.5 - 55.0 5-10% silica veinlets, local stockwork

55.4 - 56.3 5% silica veinlets, local stockwork

56.7 - 57.5 5% silica veinlets

58.0 - 58.3 5% silica veinlets

59.7 2cm wide, grey quartz vein at 45 degrees to the core axis, 2-3% pyrite

60.9 - 61.15 Pinkish white, "granitic" silica vein

62.85 - 63.05 2-3% pyrite as stringers and blebs

63.3 - 64.1 2-3% pyrite as stringers and as blebs associated with quartz veinlets.

65.1 - 65.7 5% silica veinlets

67.1 - 67.2 1cm wide quartz veinlet at 20 degrees to the core axis, 2% pyrite.

71.25 - 71.65 2-3% pyrite associated with quartz veinlets.

75.3 - 75.8 Diorite dyke; 2c

77.4 - 77.7 Diorite dyke; 2c

77.7 2cm grey quartz vein at 70 degrees to the core axis.  
79.1 - 82.5 5% silica veinlets; local silica (10-30%).  
84.4 - 85.0 10-50% silica - quartz veinlets generally at high angles to the core axis  
85.6 - 86.0 10-15% silica veinlets, local stockwork  
88.85 - 89.35 Diorite dyke; 2c  
90.8 - 92.4 variable silicification (5-25%)  
92.5 - 92.7 1-2cm wide quartz vein parallel to the core axis, 2% pyrite as stringers  
93.0 - 93.3 50% silica  
93.7 - 94.9 5% silica veinlets, local stockwork, local silica  
96.0 - 96.7 5-10% silica-quartz veinlets, local stockwork.  
97.75 - 98.3 1-2cm wide grey quartz vein sub-parallel to the core axis, 1-2% pyrite  
99.2 - 99.3 2-3cm wide white quartz vein at 45 degrees to the core axis  
100.2 - 101.2 Extensive (25-50%) grey quartz veining sub-parallel to the core axis  
102.7 - 103.3 10% fine grained (<0.5mm), medium brown biotite.  
105.5 - 106.2 Diorite dyke; 2c  
106.6 - 106.75 25-75% silica  
107.1 - 107.4 5-10% silica veinlets  
112.8 - 113.5 25-75% silica, 5-10% silica veinlets, local stockwork  
114.5 - 115.4 25-75% silica, 5% silica veinlets  
115.8 - 116.2 5% silica veinlets  
116.5 - 117.0 5% silica veinlets - stockwork  
117.7 - 117.85 1-2 cm wide grey quartz veinlets sub-parallel to core axis, 1-2% pyrite  
121.25 - 121.55 1-2% pyrite-pyrrhotite  
125.8 - 125.95 2-3% pyrite-pyrrhotite as stringers parallel to foliation  
126.6 - 126.75 Local grey quartz veinlets; 2-3% pyrite-pyrrhotite  
127.0 - 127.1 2-3cm wide grey quartz vein at 45 degrees to the core axis  
127.1 - 127.3 1-2% pyrite-pyrrhotite  
128.3 - 129.15 1-3% pyrite-pyrrhotite as stringers parallel to the foliation.  
130.3 - 130.65 1-3% pyrite-pyrrhotite as stringers parallel to the foliation.

131.2 -131.5 Local silica (25-75%), 5-10%  
silica veinlets, 1-2% pyrite  
131.5 - 135.2 Common, local gabbro  
contamination

134.4 - 135.2 10-30% silicification

136.2      136.2      END OF HOLE

## DIAMOND DRILL HOLE LL-89-15

Location: Line 19+00 West; 4+62.5 South

SAMPLE NUMBER	FROM(m)	TO(m)	INTERVAL(m)	ASSAY (oz/ton)
1892	6.0	7.5	1.5	0.002
1893	11.3	12.3	1.0	<0.001
1894	18.3	19.8	1.5	<0.001
1895	19.8	21.3	1.5	0.001
1896	21.3	22.5	1.2	0.001 check
1897	22.5	23.3	0.8	0.001
1898	23.8	24.8	1.0	0.001
1899	26.0	27.5	1.5	<0.001
1900	27.5	28.7	1.2	<0.001
1901	28.7	29.7	1.0	<0.001
1902	30.0	31.2	1.2	0.001
1903	31.2	31.6	1.4	0.001
1904	31.6	32.6	1.0	<0.001
1905	34.0	35.0	1.0	<0.001
1905	34.0	35.0	1.0	0.001 check
1906	35.0	35.7	0.7	0.004
1907	35.7	36.3	0.6	0.002
1908	39.3	40.3	1.0	0.006
1909	41.0	42.4	1.4	<0.001
1910	44.8	46.3	1.5	0.001
1911	48.1	49.5	1.4	0.001
1912	50.9	52.2	1.3	<0.001
1913	52.2	53.3	1.1	0.002
1914	42.8	44.1	1.3	0.001 check
1915	54.5	56.0	1.5	<0.001
1916	56.7	57.7	1.0	0.003
1917	59.6	60.9	1.3	0.001
1918	62.8	63.3	0.5	<0.001
1919	63.3	64.3	1.0	0.001
1920	66.7	67.7	1.0	0.002
1921	71.0	72.0	1.0	<0.001
1922	74.3	75.3	1.0	0.001
1923	79.0	80.5	1.5	0.001 check
1924	80.5	81.5	1.0	0.001
1925	81.5	82.5	1.0	<0.001 check
1926	84.4	85.1	0.7	<0.001
1927	85.1	86.1	1.0	<0.001
1928	89.8	90.8	1.0	<0.001
1928	89.8	90.8	1.0	0.001 check
1929	90.8	91.8	1.0	<0.001
1930	92.4	93.4	1.0	<0.001
1931	95.9	96.9	1.0	<0.001
1932	97.5	98.35	0.85	<0.001
1933	99.2	100.2	1.0	0.001
1934	100.2	101.2	1.0	0.002
1935	101.2	102.7	1.5	0.002
1936	102.7	103.7	1.0	0.001
1937	104.5	105.5	1.0	0.001 check

1938	106.5	108.0	1.5	<0.001
1939	112.6	114.1	1.5	<0.001
1940	114.1	115.4	1.3	<0.001
1941	115.4	116.4	1.0	<0.001
1942	116.4	117.2	0.8	<0.001
1943	117.2	118.5	1.3	<0.001
1944	121.25	122.5	1.25	0.001
1945	122.5	123.5	1.0	0.001
1946	125.8	127.1	1.3	<0.001
1946	125.8	127.1	1.3	0.001 check
1947	127.1	128.6	1.5	0.001
1948	128.6	130.1	1.5	0.001
1949	130.1	131.5	1.4	0.001
1950	134.3	135.3	1.0	<0.001

## DIAMOND DRILL RECORD

## LAIRD LAKE PROJECT

HOLE NUMBER: LL-89-16 LOCATION: Line 38+50W; 12+32.5S

AZIMUTH: 340 degrees DIP: -50 degrees LENGTH: 246.0m

DRILLED BY: N. Morissette CORE DIAMETER: BQ CASING: 3.5m

STARTED: April 1, 1989 FINISHED: April 4, 1989

LOGGED BY: Murray C. Rogers SYSTEM: Metric

ACID TESTS: 63.1m -44.5 degrees  
 121.9m -42.0 degrees  
 182.9m -43.5 degrees  
 246.0 -42.5 degrees

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FOOTAGE		DESCRIPTION
From	To	
0.0	3.5	OVERBURDEN
3.5	14.45	MAFIC VOLCANIC PROTOMYLONITE - MYLONITE; 1am  Dark grey, fine grained (<1mm), fair to well developed, tight (1-2mm) foliation at 50-60 degrees to the core axis, unaltered to strongly altered, original composition locally preserved: 30-40% plagioclase, 60-70% pyroxene, common silicification (10-100%), local dark brown-black biotite alteration (5-50%), <0.5% disseminated pyrite-locally to 1%, occasional silica veinlets-irregular-straight, random to parallel to foliation, narrow (<1-2mm). Type 1am.
		4.05 - 4.65 100% silicification
		4.65 - 6.2 10% biotite alteration
		6.2 - 6.9 10-50% silicification
		6.9 - 7.4 10-20% biotite
		7.4 - 7.7 100% silicification
		8.2 - 8.6 100% silicification
		8.6 - 10.1 10-30% silicification
		10.6 - 11.5 30-100% silicification
		11.5 - 12.0 10-25% silicification
		12.0 - 13.1 80-100% silicification
		13.35 - 13.8 100% silicification

Sharp contact

14.45      14.95      FELSIC MYLONITE; 6  
Light-medium pink aphanitic - very fine grained (<1mm), well developed, tight (<1-2mm) foliation at 55 degrees to the core axis consisting of light/dark banding essentially 100% silicification, 0.5% disseminated pyrite - locally to 1-2%, occasional silica veinlets - irregular to straight, random to parallel to foliation, narrow (<1-2mm), probable original granodiorite but no original texture remains. Type 6

Sharp contact

14.95      15.25      MAFIC VOLCANIC MYLONITE; 1am  
Same as Type; 100% silica

Sharp contact

15.25      15.9      FELSIC MYLONITE; 6  
Same as Type

Sharp contact

15.9      16.3      MAFIC VOLCANIC MYLONITE; 1am  
Same as Type; 30-50% silica

16.3      19.3      FELSIC MYLONITE; 6  
Same as Type  
17.9 - 18.55 1-2% disseminated pyrite

Sharp contact

19.3      23.05      MAFIC VOLCANIC MYLONITE; 1am  
Same as Type; 10-50% silica, local dark brown biotite alteration (10-50%)  
22.2 - 22.85 1-3% pyrite as disseminated and stringers along foliation planes, 5% quartz veinlets parallel to foliation 30-50% silica.  
22.85 - 23.05 50% black biotite

Sharp contact

23.05      23.35      FELSIC MYLONITE; 6  
              Same as Type  
              Sharp contact

23.35      24.0      MAFIC VOLCANIC MYLONITE; 1am  
              Same as Type  
              Sharp contact

24.0      25.5      FELSIC MYLONITE; 6  
              Same as Type; 1-2% disseminated and stringer pyrite.  
              Sharp contact

25.5      27.7      MAFIC VOLCANIC MYLONITE; 1am  
              Same as Type; local silica (10-50%)  
              Sharp contact

27.7      30.1      DIORITE; PROTOMYLONITE; 2cm  
              Similar to Type 2c; weak foliation - grain alignment at 50-60 degrees to the core axis, original texture apparent.  
              Sharp contact

30.1      33.5      GRANODIORITE; BIOTITIC; PROTOMYLONITE-MYLONITE; 4am  
              Medium greyish-pink, fine grained (1mm), foliation- grain alignment at 50-60 degrees to the core axis, equigranular, 10-15% quartz, 10-15% biotite, 70-80% feldspar, plagioclase > K-feldspar, <0.5% disseminated pyrite, original texture and composition generally apparent. Type 4am.  
              Gradational contact over a few centimetres.

33.5      33.9      FELSIC MYLONITE; 6  
              Similar to Type; medium tan-grey, 100% silica  
              Gradational contact over a few centimetres.

- 33.9      35.1      MAFIC VOLCANIC MYLONITE; 1am  
Similar to Type; foliation at 55-60 degrees to the core axis, 25-50% silica.  
Gradational contact over a few centimetres.
- 35.1      35.9      FELSIC MYLONITE; 6  
Similar to Type; medium grey-tan, 100% silica  
Gradational contact over a few centimetres.
- 35.9      46.0      MAFIC VOLCANIC MYLONITE; 1am  
Similar to Type; 20-80% silica, <0.5-1% pyrite - locally 2-3%, local black biotite to 10%.  
38.25 - 38.4 Grey quartz vein at 60-70 degrees to the core axis  
43.1 - 44.0 50-80% silica, 1-2% pyrite  
Sharp contact
- 46.0      47.6      GABBRO; 2a  
Similar to Type  
Sharp contact
- 47.6      66.1      MAFIC VOLCANIC MYLONITE; 1am  
Similar to Type; foliation at 55-60 degrees to the core axis, 10-100% silica - average 10-30%, local black biotite alteration to 50%, occasional quartz veinlets, 0.5-1% pyrite - locally to 2-3%.  
50.2 - 50.6 50% fine grained (<1mm) chlorite alteration  
50.9 - 51.2 2-3% pyrite as disseminated and as stringers  
52.35 - 52.8 Felsic mylonite; 6; 100% silica  
55.7 - 55.85 100% silica  
56.1 - 56.7 Diorite dyke, protomylonite; 2cm  
57.2 - 57.35 Granodiorite dyke; 4a  
57.7 - 57.9 50% black biotite  
58.4 - 59.4 50-100% silica  
60.05 - 60.2 Remnant ash fall tuff (<1mm);

1 cm

60.3 - 60.75 50-75% chlorite alteration

**62.9 = 63.45 50% silicon**

63.45 - 63.55 50% dark brown biotite  
alteration

64.7 - 64.9 80-100% chlorite alteration

65.2 = 65.3 100% 5111ca

65.6 - 65.75 Granodiorite dyke: 4a

Gradational contact over 50 cm.

66.1 74.65 BASALT FLOW; WEAKLY DEFORMED TO  
PROTOMYLONITE; la - lam

Dark grey, fine grained (<1mm), weak to well defined foliation at 60 degrees to the core axis, 35-45% plagioclase, 55-65% pyroxene, 0.5% disseminated pyrite, local silica, (10-30%), common, local biotite alteration, common (1-2%) silica-quartz veinlets generally parallel to foliation narrow (1-5mm).

67.3 - 71.95 10-25% black biotite alteration

72.5 - 73.0 10-25% black biotite alteration

73.0 - 73.3 50% silica

73.3 - 73.75 10-20% black biotite alteration

73.75 - 74.65 50-100% chlorite alteration

## Sharp contact

74.65      76.7      GRANODIORITE; 4a

Medium grey to pink, medium grained (2mm), massive, equigranular, 20-30% quartz, 5-10% biotite, 60-75% feldspar, plagioclase > K-feldspar, 0.5% disseminated pyrite. Type 4a

## Sharp contact

Sharp contact

76.7      78.0      MAFIC VOLCANIC PROTOMYLONITE; 1a - 1am  
Same as Type  
Sharp contact

78.0      78.6      GRANODIORITE; 4a  
Same as Type  
Sharp contact

78.6      79.5      MAFIC VOLCANIC PROTOMYLONITE; 1a - 1am  
Same as Type; 10-15% black biotite  
Sharp contact

79.5      80.15     GRANODIORITE; 4a  
Same as Type  
Sharp contact

80.15     90.5      MAFIC VOLCANIC PROTOMYLONITE; 1am  
Same as Type; foliation at 55-60 degrees to  
the core axis, variable (10-100%) silica,  
(average 10-20%), local biotite alteration.  
81.2 - 81.3 Granodiorite dyke; 4a  
81.4 - 81.7 30-70% silica  
81.7 - 83.6 10-15% black biotite; 1-2% grey  
quartz veinlets generally parallel to  
foliation  
83.6 - 83.95 Granodiorite dyke; 4a  
83.95 - 87.8 10-20% black biotite; 1-2% grey  
quartz veinlets parallel to the foliation  
87.2 - 87.4 50% silica  
87.4 - 87.8 10-20% biotite alteration  
87.8 - 88.1 25-75% silica  
88.1 - 88.45 Gabbro dyke; 2a  
88.45 - 88.7 75% silica  
88.7 - 89.3 Common silica (10-50%) common  
black biotite alteration (5-20%), 1-2%  
quartz veinlets.  
89.3 - 90.0 Granodiorite dyke; 4a  
90.0 - 90.5 10% biotite alteration, 10-20%

7

silica, 1-2% quartz veinlets

Sharp contact

90.5      99.05      GRANODIORITE; BIOTITIC; 4a

Similar to Type; Medium pink, medium grained (1-2mm), massive, equigranular, 10-20% quartz, 5-15% biotite, 65-85% feldspar, plagioclase > K-feldspar, 0.5% disseminated pyrite, local contamination and inclusions of basalt, bright red-orange stain common throughout - probable hematite alteration, possible potassic alteration, occasional silica - quartz veinlets.

Sharp contact

99.05      99.7      MAFIC VOLCANIC MYLONITE; 1am

Same as Type; well developed foliation at 60 degrees to the core axis, 50-75% silica, 0.5-1% pyrite, 1-2% quartz veinlets parallel to foliation.

Gradational contact

99.7      104.3      BASALT FLOW; PROTOMYLONITE; 1am

Similar to Type; weak foliation at 60 degrees to the core axis.

99.7 - 101.0 50-100% chlorite alteration  
101.0 - 101.3 Granodiorite dyke,  
protomylonite; 4am  
101.3 - 102.95 20-75% silica, 0.5-1% pyrite  
102.95 - 103.4 Gabbro, pyroxene porphyry  
dyke, protomylonite; 2dm  
103.4 - 103.8 25-50% silica  
103.8 - 104.3 Gabbro pyroxene porphyry dyke,  
protomylonite; 2dm

Sharp contact

104.3      107.15      GRANODIORITE; MYLONITE; 4am

Similar to Type; well developed foliation at 65-70 degrees to the core axis, common basalt (1am) inclusions and contamination , aphanitic to fine grained (<1mm), common silica (10-100%); average 10-20%, local bright red coloration - hematite or potassic

- alteration.
- 106.95 - 107.15 100% silica  
Sharp contact
- 107.15 108.3 MAFIC VOLCANIC MYLONITE; 1am  
Similar to Type; 50-100% silica, 0.5-1% pyrite  
Sharp contact
- 108.3 109.4 GABBRO; 2a  
Similar to Type  
Sharp contact
- 109.4 117.7 MAFIC VOLCANIC MYLONITE; 1am  
Similar to Type; foliation at 65-70 degrees to the core axis, common silica (10-50%), <0.5-1% pyrite as disseminated and stringers along foliation, occasional quartz-silica veinlets, local, minor talc-calcite along fractures.  
115.2 - 117.7 Well foliated, totally altered volcanic consisting of alteration bands of chlorite, dark brown biotite and minor carbonate; <1% quartz veinlets parallel to foliation, 0.5% pyrite  
Sharp contact
- 117.7 118.5 GABBRO; PYROXENE PORPHYRY DYKE; 2d  
10-20% chloritized pyroxene phenocrysts (2-5mm) in a fine grained (1mm) mafic matrix.  
Sharp contact
- 118.5 147.5 MAFIC VOLCANIC PROTOMYLONITE - MYLONITE; 1am  
Similar to 109.4 - 117.7; generally well developed foliation at 50-75 degrees to the core axis, alteration includes chlorite, dark brown biotite and minor carbonate, common (1-2%) silica veinlets - generally irregular, random and narrow (1-10mm); 0.5% disseminated

pyrite, locally to 1%.

118.5 - 120.25 Weak (10%) biotite alteration  
120.25 - 121.0 Pervasive chlorite/biotite/  
carbonate alteration - banded

121.0 - 121.9 10-20% biotite alteration  
121.9 - 122.85 Chlorite/biotite/carbonate  
alteration - pervasive, banded

122.85 - 124.4 15-30% chlorite alteration  
124.4 - 126.8 Chlorite/biotite/carbonate  
alteration - banded, pervasive, weak  
magnetite content locally.

126.8 - 131.75 25-50% biotite alteration,  
weak foliation at 50 degrees to the core  
axis.

131.75 - 133.6 Banded pervasive chlorite/  
biotite/carbonate alteration at 50 degrees to  
the core axis.

133.6 - 135.95 10-35% biotite alteration, 10-  
25% silica, locally, weak foliation at 60-65  
degrees to the core axis.

135.95 - 138.6 Chlorite/biotite/carbonate  
alteration banded at 75-80 degrees to the  
core axis, local silica-quartz veinlets  
parallel to banding, 0.5% pyrite

138.6 - 139.2 10-25% biotite alteration

139.2 - 142.7 Banded chlorite/biotite/carb-  
onate alteration at 60-70 degrees to the  
core axis, common (1-2%), narrow (1-10mm)  
silica veinlets.

142.7 - 145.6 10-30% biotite alteration,  
0-10% chlorite alteration, 1% silica  
veinlets, weak magnetite locally.

145.6 - 147.5 Banded chlorite/biotite/  
carbonate alteration at 65-75 degrees to the  
core axis. 0.5-1% pyrite - locally to 2%,  
common (1-2%) silica veinlets subparallel to  
foliation to random.

Sharp contact

147.5      149.1      "GRANITIC" VEIN - DYKE

Siliceous, aphanitic, orange-red.

Sharp contact

149.1      156.1      MAFIC VOLCANIC PROTOMYLONITE - MYLONITE; 1am

Similar to 118.5 - 147.5; foliation developed  
at 60-65 degrees to core axis, generally  
altered - chlorite, dark brown biotite and

minor carbonate, common silica veinlets- irregular - straight, random to parallel to foliation, narrow (1-10mm); 0.5-1% disseminated pyrite, locally 2-3%

149.1 - 149.7 15-25% biotite alteration, 1-2% disseminated pyrite

149.7 - 150.85 Pervasive, banded chlorite/biotite/carbonate alteration at 60-65 degrees to the core axis, 2-5% silica veinlets

150.85 - 151.5 10-30% biotite, 0-10% chlorite, 1-2% pyrite

151.5 - 154.7 Pervasive, banded chlorite/biotite/carbonate alteration, 1-2% silica veinlets, locally to 5%, 1% pyrite

154.7 - 155.9 15-30% dark brown biotite alteration.

155.9 - 156.1 Gabbro, pyroxene porphyry dyke; 2d

Sharp contact

156.1      156.75      GRANODIORITE DYKE; 4a

Same as Type

Sharp contact

156.75      181.3      BASALT FLOW; RELATIVELY UNDEFORMED- PROTOMYLONITE; 1a - 1am

Similar to Type; local foliation developed at 60-65 degrees to the core axis, common dark brown - black biotite alteration, local chlorite alteration, common 1-2% silica veinlets - locally to 5%; <0.5% pyrite- locally to 1%

156.75 - 159.5 10-40% biotite alteration

159.5 - 162.3 5-10% biotite alteration

162.3 - 162.75 Gabbro, pyroxene porphyry dyke; 2d

162.75 - 166.7 Biotite alteration (upto 10%), local silica (5-30%)

166.7 - 170.0 Banded at 65 degrees to the core axis, 10-30% biotite, 5-45% chlorite, minor carbonate, 5-25% silica associated with silica veinlets sub-parallel to the foliation.

170.0 - 172.8 5-15% biotite alteration, 10-25% silica

172.8 - 173.9 Banded biotite/chlorite/carbonate alteration at 65-75 degrees to the core axis, 1% silica veinlets.  
173.9 - 178.1 10-40% dark brown biotite alteration  
178.1 - 178.25 100% silica  
178.25 - 181.3 20-50% biotite alteration, local silica (10-50%), 1-2% silica veinlets, foliation at 65-75 degrees to the core axis.

Sharp contact

181.3      181.9      GRANODIORITE; 4a  
Similar to Type; medium orangish-pink  
Sharp contact

181.9      182.45      DIORITE DYKE; 2c  
Same as Type  
Sharp contact

182.45      188.45      BASALT FLOW; RELATIVELY UNDEFORMED - PROTOMYLONITE; 1a - 1am  
Similar to 156.75 - 181.3; foliation at 60-70 degrees to the core axis.  
182.45 - 183.8 20-50% dark brown biotite alteration, 0.5-1% pyrite  
183.8 - 184.75 Pervasive chlorite, epidote, biotite and minor carbonate alteration, 1-2% silica veinlets, 1-2% pyrite.  
184.75 - 188.45 20-40% dark brown biotite, 0-10% chlorite, local silica (10-50%), 1-2% silica veinlets - locally to 5%.  
Sharp contact

188.45      189.7      QUARTZ VEIN  
Light grey, granular, massive, 100% quartz, "granitic" appearance.  
Sharp contact

189.7      216.1\*      BASALT FLOW; RELATIVELY UNDEFORMED- PROTOMYLONITE; 1a - 1am

Similar to 182.45 - 188.45, foliation at 60-70 degrees to core axis, variably altered-chlorite, dark brown biotite and very minor carbonate, common silica - quartz veinlets.

189.7 - 193.1 Varably banded biotite/chlorite local, minor carbonate alteration, pervasive, common silica - quartz veinlets - locally to 5%, 0.5% pyrite.

193.1 - 200.35 10-25% biotite alteration, 1-2% silica - quartz veinlets, 0.5% pyrite - locally to 1%

200.0 - 200.35 20-30% chlorite alteration  
200.35 - 201.7 Extensive (50-100%) granodiorite dyke material

201.7 - 202.7 50-75% chlorite alteration

202.7 - 205.7 10-25% dark brown biotite, 1-2% silica veinlets - locally to 10%

205.7 - 208.6 25-50% silica, common (1-2%) silica - quartz veinlets - generally random, weak foliation at 60-65 degrees to core axis, pink-orange silica, local orangish-red granodiorite lenses, 0.5% pyrite - locally to 1%

208.6 - 209.4 5% light green silica veinlets, 5-25% silica

209.4 - 211.1 20-50% silica

211.1 - 216.1\* Box 38 - dropped by drille, totally mixed-up core, consists mainly of 1a - 1am unit with 10-20% dark brown biotite alteration, also local silica (10-30%); also two types of granodiorite dykes - light grey, siliceous wih 1-2% disseminated pyrite and light pink and siliceous.

216.1      246.0\*      GRANODIORITE; 4a

Light grey, medium grained (2-3mm), massive, equigranular, 25-40% quartz, 5-10% biotite, 50-70% feldspar, plagioclase > K-feldspar, 1% disseminated pyrite - locally to 2%, majority of section fractured and broken-probable fault, common orange-red hematite stain, gradational change from light grey to light pink downhole with a coincident decrease in quartz content (to 10-15%).

219.4 - 230.7 Extensively fractured and broken-probable fault, talc on some fracture surfaces.

230.7 - 246.0 Common fracturing with local  
talc on surfaces, local extensively broken  
fault sections.

238.5 - 239.35 Basalt unit, pervasive talc  
alteration

243.4 - 245.5 Pegmatitic interval, grain size  
5-10mm.

246.0      246.0      END OF HOLE

## DIAMOND DRILL HOLE LL-89-16

Location: Line 38+50 West; 12+32.5 South

SAMPLE NUMBER	FROM(m)	TO(m)	INTERVAL(m)	ASSAY(oz/ton)
1951	4.0	4.7	0.7	0.001
1952	6.0	7.0	1.0	<0.001
1953	7.3	8.8	1.5	0.001
1954	8.8	10.3	1.5	<0.001
1955	10.3	11.5	1.2	0.001 check
1956	11.5	12.0	0.5	0.001
1957	12.0	13.5	1.5	0.001
1958	13.5	15.0	1.5	0.001
1959	15.0	16.5	1.5	<0.001
1960	16.5	17.8	1.3	<0.001
1961	17.8	18.8	1.0	0.001
1962	18.8	20.3	1.5	<0.001
1963	20.3	21.8	1.5	<0.001
1964	21.8	23.1	1.3	<0.001 check
1965	23.1	24.0	0.9	<0.001
1966	24.0	25.5	1.5	0.001
1967	25.5	26.5	1.0	<0.001
1968	26.5	27.25	0.75	0.001
1969	29.1	30.1	1.0	<0.001
1970	30.1	31.1	1.0	<0.001
1971	32.5	33.5	1.0	<0.001
1972	33.5	35.0	1.5	<0.001
1973	35.0	36.5	1.5	<0.001
1973	35.0	36.5	1.5	0.001 check
1974	36.5	38.0	1.5	<0.001
1975	38.0	38.5	0.5	0.001
1976	38.5	39.5	1.0	<0.001
1977	39.5	41.0	1.5	<0.001
1978	41.0	42.5	1.5	<0.001
1979	42.5	44.0	1.5	0.001
1980	44.0	45.0	1.0	<0.001
1981	45.0	46.0	1.0	<0.001
1982	47.6	49.1	1.5	<0.001 check
1983	49.1	50.6	1.5	<0.001
1984	50.6	52.1	1.5	<0.001
1985	52.1	53.6	1.5	<0.001
1986	53.6	55.1	1.5	<0.001
1987	55.1	56.1	1.0	<0.001
1988	56.1	56.75	0.65	0.001
1989	56.75	57.25	0.5	0.001
1990	57.25	58.4	1.15	0.001
1991	58.4	59.4	1.0	<0.001 check
1992	59.4	60.9	1.5	<0.001
1993	60.9	62.3	1.4	<0.001
1994	62.3	63.7	1.4	<0.001
1995	63.7	65.0	1.3	<0.001
1996	65.0	66.5	1.5	0.001
1997	69.2	70.7	1.5	<0.001

1998	73.15	74.65	1.5	0.001
1999	76.7	77.5	0.8	0.001
2000	80.0	81.4	1.4	<0.001 check
501	81.4	82.9	1.5	0.001
502	82.9	84.4	1.5	0.001
503	84.4	85.9	1.5	0.006
504	85.9	87.4	1.5	0.001
505	87.4	88.1	0.7	0.002
506	88.45	89.3	0.85	<0.001
507	89.3	90.5	1.2	<0.001
508	90.5	91.5	1.0	<0.001
509	96.7	98.2	1.5	<0.001
510	98.8	99.7	0.9	<0.001 check
511	99.7	101.0	1.3	<0.001
512	101.0	102.0	1.0	<0.001
513	102.0	102.95	0.95	<0.001
514	104.3	105.8	1.5	<0.001
515	105.8	107.15	1.35	<0.001
516	107.15	108.3	1.15	<0.001
517	109.4	110.9	1.5	<0.001
518	110.9	112.2	1.3	0.001
519	112.2	113.7	1.5	<0.001 check
520	113.7	115.3	1.6	<0.001
521	115.3	116.8	1.5	0.001
522	116.8	117.7	0.9	0.001
523	118.5	120.0	1.5	0.001
524	120.0	121.5	1.5	0.001
525	121.5	122.85	1.35	<0.001
526	122.85	124.4	1.55	0.002
527	124.4	125.9	1.5	0.001
528	125.9	127.3	1.4	<0.001
529	127.3	128.8	1.5	<0.001
530	128.8	130.3	1.5	<0.001
531	130.3	131.75	1.45	<0.001
532	131.75	133.6	1.85	<0.001
533	133.6	134.85	1.25	<0.001
534	134.85	135.95	1.1	0.001
535	135.95	137.5	1.55	0.001 check
536	137.5	138.6	1.1	0.001
537	138.6	139.3	0.7	0.001
538	139.3	140.8	1.5	0.001
539	140.8	141.8	1.0	<0.001
540	141.8	142.7	0.7	0.002
541	142.7	144.2	1.5	<0.001
542	144.2	145.5	1.3	0.001
543	145.5	146.5	1.0	0.001
544	146.5	147.5	1.0	<0.001
544	146.5	147.5	1.0	0.002 check
545	149.1	150.6	1.5	0.001
546	150.6	152.1	1.5	0.001
547	152.1	153.6	1.5	0.002
548	153.6	155.1	1.5	0.001
549	155.1	155.9	0.8	0.001
550	156.75	158.25	1.5	<0.001

551	158.25	159.55	1.3	0.001
552	159.55	160.75	1.2	0.001
553	160.75	162.3	1.55	0.001
554	166.7	168.15	1.45	0.001 check
555	168.15	169.15	1.0	0.003
556	169.15	170.2	1.05	0.001
557	172.8	174.0	1.2	0.001
558	177.8	179.3	1.5	<0.001
559	182.5	183.8	1.3	<0.001
560	183.8	184.75	0.95	0.003
561	184.75	186.25	1.5	0.001
562	186.25	187.75	1.5	0.001 check
563	187.75	188.45	0.7	0.002
564	188.45	189.7	1.25	0.001
565	189.7	191.2	1.5	0.002
566	191.2	192.7	1.5	0.001
567	192.7	194.2	1.5	<0.001
568	198.0	199.5	1.5	0.001
569	202.9	203.9	1.0	<0.001
570	203.9	205.2	1.3	<0.001
571	208.1	209.6	1.5	0.001
571	208.1	209.6	1.5	<0.001 check
572	216.1	217.6	1.5	<0.001
573	224.2	225.7	1.5	<0.001
574	231.7	233.0	1.3	0.003
575	242.9	244.5	1.6	<0.001 check

DIAMOND DRILL RECORD

LAIRD LAKE PROJECT

HOLE NUMBER: LL-89-17      \*\*\*\* NOT DRILLED \*\*\*\*

## **DIAMOND DRILL RECORD**

## LAIRD LAKE PROJECT

HOLE NUMBER: LL-89-18

LOCATION: Line 37+87.5W; 12+25S

AZIMUTH: 345 degrees

DIP: -50 degrees LENGTH: 264.2m

DRILLED BY: N. Morissette CORE DIAMETER: 80 CASING: 1.55m

STARTED: Apr 11 5, 1989

FINISHED: April 7, 1989

LOGGED BY: Murray C. Rogers SYSTEM: Metric

ACID TESTS:	61.0m	-47 degrees
	121.9m	-45 degrees
	182.9m	-42.5 degrees
	264.2m	-42.5 degrees

FOOTAGE		DESCRIPTION
From	To	
0.0	1.55	OVERBURDEN
1.55	6.3	BASALT FLOW; RELATIVELY UNDEFORMED- PROTOMYLONITE; 1a - 1am  Dark grey, fine grained (1mm), weak foliation developed at 65 degrees to the core axis, 35-45% plagioclase, 55-65% pyroxene, <0.5% disseminated pyrite, common (10-30%), silicification, 1-2% silica veinlets developed parallel to foliation - straight and narrow (1-10mm). Type 1a - 1am.
		Sharp contact
6.3	7.4	GABBRO; FELDSPAR PORPHYRY; 2b  Dark grey, fine grained (1-2mm), weak grain alignment at 65 degrees to the core axis, 40-50% plagioclase, 5% biotite, 45-55% pyroxene, 2-5% plagioclase phenocrysts (2-5mm). Type 2b
		Sharp contact
7.4	11.6	MAFIC VOLCANIC MYLONITE; 1am  Dark grey, aphanitic to fine grained (<1mm), well developed, tight (<1-3mm) foliation at

65 degrees to the core axis consisting of light/dark banding, original texture and composition not apparent, 50-100% silicification, weak carbonate alteration locally to 10%, 1-2% silica veinlets developed parallel to foliation - locally to 5%, <0.5% disseminated pyrite - locally to 1%. Type 1am.

7.75 - 8.1 100% silicification

Sharp contact

11.6        13.45      GABBRO; 2a

Similar to Type 2b except not porphyritic, pyroxene totally chloritized. Type 2a.

Sharp contact

13.45        19.4      MAFIC VOLCANIC MYLONITE; 1am

Similar to Type 1am. 20-50% silicification, common intervals of dolomite alteration-pervasive to veinlets parallel to foliation-cream to buff colour; local chlorite alteration.

13.5 - 13.8 50% dolomite alteration

15.9 - 18.3 10-50% dolomite

18.3 - 18.95 50% chlorite alteration

18.95 - 19.4 Extensive granodiorite contamination.

Gradational contact over tens of centimetres.

19.4        26.5      MAFIC VOLCANIC PROTOMYLONITE; 1am

Similar to Type; weak foliation at 65 degrees to the core axis, variably altered, 10-25% silica throughout, local 5-100% dolomite alteration, <0.5% pyrite, minor (1%) carbonate and silica veinlets.

19.4 - 19.9 10-25% dolomite

19.9 - 20.15 granodiorite dyke; 4a

20.15 - 20.4 25-50% dolomite

22.4 - 23.25 tuff unit (1mm); 1c

24.8 - 25.0 100% dolomite

25.3 - 25.55 50% dolomite

Sharp contact

- 26.5      28.1      GABBRO; 2a  
Similar to Type; fine grained (1-2mm).  
Sharp contact
- 28.1      31.45     MAFIC VOLCANIC PROTOMYLONITE; 1am  
Similar to 19.4 -26.5; weak foliation at 65 degrees to the core axis, silica and dolomite alteration locally, minor biotite or talc alteration locally.  
28.1 - 28.8 20-50% dolomite  
29.4 - 30.95 Remnant tuff unit; 1cm; 10-20% biotite alteration  
30.95 - 31.45 25% talc alteration, local silica to 50% near contact.  
Sharp contact
- 31.45      35.0      GRANODIORITE; PROTOMYLONITE - MYLONITE; 4am  
Light pink, very fine grained (<1mm), foliation developed at 55-65 degrees to the core axis, no original texture or mineralogy, essentially 100% silicification , 0.5% disseminated pyrite - locally to 1%, rare quartz veinlets generally parallel to foliation - straight and narrow (1-5mm). Type 4am
- 35.0      37.4      MAFIC VOLCANIC TUFF; PROTOMYLONITE; 1cm  
Medium grey, fine grained (1mm), weak foliation at 65 degrees to the core axis, original texture generally apparent, variably silicified 25-100%, local biotite alteration to 10%, 0.5% disseminated pyrite - locally to 1%. Type 1cm.  
36.4 - 36.75 100% silica  
Sharp contact
- 37.4      72.65     MAFIC VOLCANIC PROTOMYLONITE - MYLONITE; 1am  
Similar to Type; well developed foliation at 65 degrees to the core axis, variably silicified - 10-50% average 10-20%, locally common creamy white dolomite alteration. 5-

20% and locally to 100%, rare, local sericite (5-10%), local biotite alteration, 1-2% silica or carbonate veinlets generally parallel to foliation, <0.5% pyrite.

40.4 - 40.75 chloritized gabbro dyke; 2a  
41.3 - 41.7 25-50% dolomite alteration  
43.3 - 43.6 100% dolomite  
44.2 - 44.8 gabbro, pyroxene porphyry dyke; 2d  
46.45 - 48.3 30-50% dolomite  
52.8 - 53.4 30-50% dolomite  
53.4 - 54.55 25-60% black biotite alteration  
54.55 - 56.5 10-40% silica; 10-30% biotite  
56.5 - 57.0 50-100% dolomite  
57.0 - 58.45 10-25% biotite; 10-30% silica;  
57.9 - 57.95 grey quartz vein  
58.45 - 60.4 50-100% silica, 0.5-1% pyrite,  
locally to 3%

ASSAY \*\* SAMPLE NUMBER: 606 // 58.45 - 59.4m // 0.013 oz Au/ton

60.9 - 61.4 50-100% silica; 0.5-1% pyrite,  
locally to 3%  
61.4 - 64.35 10-25% black biotite alteration  
63.8 - 64.0 10% quartz veinlets with 1-  
2% pyrite  
65.4 - 72.65 50-100% silica; 0.5-1% pyrite -  
locally to 3% as disseminated and stringers  
parallel to foliation, local grey quartz  
veinlets parallel to foliation.

ASSAY \*\* SAMPLE NUMBER: 612 // 66.9 - 68.4m // 0.012 oz Au/ton

Sharp contact

72.65 73.95 GABBRO; 2c

Same as Type; chloritized pyroxene grains,  
grain size 2-3mm.

Sharp contact

73.95 82.5 MAFIC VOLCANIC MYLONITE; 1am

Similar to Type; well developed foliation at  
55-65 degrees to the core axis, variably  
silicified throughout (25-100%), common (1-  
2%) silica - grey quartz veinlets - generally  
straight, random to parallel to foliation,  
narrow (1-20mm), 0.5% disseminated pyrite-

locally to 1%.

74.05 - 74.45 granodiorite mylonite unit; 4am  
remnant quartz grains  
82.25 - 82.4 50-75% chlorite alteration; no  
silica

Sharp contact

82.5        84.15        GRANODIORITE; 4a

Relatively undeformed; light pink-grey, fine grained (1-2mm), massive, equigranular, 10-15% quartz, 10% biotite, 75-80% feldspar, plagioclase > K-feldspar, 0.5% disseminated pyrite.

Sharp contact

84.15        121.7        MAFIC VOLCANIC PROTOMYLONITE - MYLONITE; 1am

Similar to Type; weak to well developed foliation at 55 degrees to the core axis, variably altered, local silica, common biotite (dark brown) alteration, 1% silica-quartz veinlets - irregular to straight, random to parallel to foliation, narrow (1-10mm), local areas of granodiorite dykes, 0.5% disseminated pyrite.

84.15 - 84.9 50% silica

84.9 - 85.8 10-25% biotite alteration

85.8 - 86.1 50-100% silica

86.1 - 89.15 20-50% biotite alteration

89.15 - 89.8 80% light pink, fine grained (<1mm), massive, "granitic" quartz vein, 0.5% pyrite

89.8 - 91.95 protomylonite, 5-15% biotite, 0-20% silica, 0.5% pyrite

91.95 - 92.7 30-50% granodiorite contamination

91.95 - 94.1 5-15% biotite, local chlorite to 25%, common granodiorite contamination and narrow dykes.

94.1 - 95.1 20-50% silica, 0.5-1% disseminated pyrite

95.1 - 97.55 10-50% biotite alteration, local 10-20% silica

95.2 - 95.4 granodiorite dyke

97.55 - 98.2 fine grained granodiorite dyke

98.2 - 101.4 20-75% silica, 0-10% biotite, 0.5% pyrite, locally to 2%

101.4 - 103.05 10-25% biotite, 0-10% silica  
 103.05 - 104.4 20-50% silica, 0-15% biotite  
 104.4 - 105.5 10-25% biotite  
 105.5 - 105.9 20-50% silica  
 105.9 - 108.45 20-50% biotite  
 108.45 - 108.7 diorite dyke, protomylonite;  
 2cm; 1% pyrite  
 108.7 - 114.8 10-70% silica, 0-1-% biotite,  
 <0.5% pyrite, locally to 1%.  
 114.8 - 115.5 50% biotite alteration  
 115.5 - 117.4 10-100% silica, average 10-30%,  
 0.5% disseminated pyrite  
 117.4 - 117.8 gabbro, protomylonite dyke; 2am  
 50% biotite alteration  
 117.8 - 118.6 diorite protomylonite dyke;  
 2cm; 25-30% biotite alteration  
 118.6 - 121.7 10-100% silica, average 10-25%.  
 0-25% biotite, average 10%; 0.5% pyrite.

Sharp contact

121.7      123.2      GRANODIORITE; MYLONITE; 4am

Similar to Type; light - medium grey, foliation at 55 degrees to the core axis, remnant quartz grains stretched parallel to foliation, 50-100% silica, 0.5% disseminated pyrite.

Sharp contact

123.2      125.5      MAFIC VOLCANIC MYLONITE; 1am

Similar to Type; well developed foliation at 55 degrees to the core axis, variably altered, 10-100% silica, average 10-40%, 5-25% dark brown biotite, <0.5% disseminated pyrite, 1-2% silica - grey quartz veinlets parallel to foliation.

Sharp contact

125.5      129.05      MAFIC VOLCANIC TUFF; PROTOMYLONITE; 1cm

Dark grey, fine grained (1-2mm), weak foliation at 55 degrees to the core axis, original texture apparent but original composition extensively altered, approximately 50% plagioclase, pyroxene is generally altered to dark brown biotite, very fine, disseminated pyrite 0.5%, local altered pyroxene grains up to 3mm. Type 1cm.

Sharp contact

129.05      130.45      MAFIC VOLCANIC PROTOMYLONITE - MYLONITE; 1cm  
Same as 123.2 - 125.5; 0.5-1% disseminated pyrite

Sharp contact

130.45      131.4      MAFIC VOLCANIC TUFF; PROTOMYLONITE; 1cm  
Similar to Type; grain size generally 1mm with sections of plagioclase grains to 2-3mm; 10-40% silica, locally common biotite 10-50%, 0.5% pyrite.

Sharp contact

131.4      148.0      MAFIC VOLCANIC MYLONITE; 1cm  
Similar to Type; well developed foliation at 55-60 degrees to the core axis, variably altered, 20-80% silica, averaging 20-40% common 10-50% dark brown biotite averaging 10-20% chlorite alteration common in sections 10-75%, carbonate alteration common in sections 10-75%, carbonate alteration, locally 5-25% bluish-grey to cream colour, 0.5% disseminated pyrite - locally to 2-3%, 1% silica - grey quartz veinlets generally parallel to foliation.  
131.4 - 133.2 20-40% silica, 10-20% biotite  
133.2 - 134.0 25-75% silica, 10% biotite, 1-2% disseminated pyrite - locally to 3%  
134.0 - 138.6 20-40% silica, 10-50% biotite

ASSAY \*\* SAMPLE NUMBER: 653 // 137.5 - 138.7m // 0.029 oz Au/ton  
138.6 - 141.75 Strong foliation at 60 degrees to the core axis consisting of alternating bands of chlorite, biotite and cream to grey carbonate, minor (<1%) silica veinlets generally parallel to foliation, 0.5% pyrite-pyrrhotite - locally to 3% as disseminated and stringers.

ASSAY \*\* SAMPLE NUMBER: 654 // 138.7 - 140.2m // 0.011 oz Au/ton  
141.75 - 142.0 80-100% silica

142.0 - 142.3 banded pervasive chlorite/biotite/dolomite alteration  
142.3 - 143.0 75-100% silica  
143.0 - 145.0 banded, pervasive chlorite/biotite/minor carbonate alteration;  
    143.15 - 144.2 5-10% anhedral almandine garnets, 1-2mm  
145.0 - 145.7 50% silica  
145.7 - 148.0 banded, pervasive biotite/chlorite/grey carbonate alteration; 1-2% silica veinlets generally parallel to foliation, 0.5% pyrite  
    147.7 - 147.95 2-3% anhedral almandine garnets - 2-3mm; local talc along fractures

Sharp contact

148.0      149.2      GABBRO; PYROXENE PORPHYRY; 2d

Dark grey, pyroxene phenocrysts to 3mm in a 1mm groundmass, massive relatively unaltered, 5% anhedral pyroxene phenocrysts, groundmass: 30-35% plagioclase, 65-70% pyroxene.

Sharp contact

149.2      247.5      MAFIC VOLCANIC PROTOMYLONITE - MYLONITE; 1am

Similar to 131.4 - 148.0; foliation at 60-70 degrees to the core axis, decreasing to 45-50 degrees downhole; variably altered with dark brown biotite, chlorite, light bluish-grey to cream coloured carbonate, silicification, <0.5% disseminated pyrite, generally minor (<1%) silica - quartz veinlets, minor almandine garnet locally.

149.2 - 152.4 Strongly banded, pervasive chlorite/biotite/carbonate alteration  
    149.2 - 149.7 5% almandine garnet, 2-3mm  
152.4 - 153.0 Banded biotite/carbonate alteration  
153.0 - 154.5 Chlorite/biotite/carbonate alteration generally weak-strong banding  
154.5 - 155.9 Pervasive 20-50%, light grey carbonate alteration.  
155.9 - 158.3 Banded, pervasive chlorite/biotite/carbonate alteration  
158.3 - 163.0 Irregularly banded biotite/carbonate minor chlorite alteration; carbonate,

light grey-green, local calcite, occasional talc veinlets.

ASSAY \*\* SAMPLE NUMBER: 667 // 158.4 - 159.9m // 0.010 oz Au/ton

163.0 - 164.1 Biotite and carbonate alteration, weak foliation, but not distinctly banded.

164.1 - 166.0 Irregular, variably banded biotite, carbonate and local chlorite alteration, 1-2% irregular, silica veinlets-random and narrow (1-2mm).

166.0 - 170.05 Weak foliation; 5-25% dark brown biotite, 5-25% carbonate alteration, local weak banding, narrow granodiorite dykes locally;

167.25 - 168.45 5% irregular, random, light grey carbonate veinlets, 1-5mm widths.

170.05 - 170.8 Strongly banded chlorite/biotite/carbonate alteration

170.8 - 210.5 Weak to strong foliation, 10-25% dark brown biotite, 5-25% carbonate alteration, minor, local chlorite, local sections only weakly altered, occasional grey quartz veinlets to 1cm.

174.3 - 175.25 pervasive 100%, light grey carbonate alteration

175.9 - 177.1 50-100% pervasive carbonate alteration

177.95 - 178.6 Irregularly banded biotite/carbonate minor chlorite alteration at 80 degrees to the core axis.

180.8 - 181.8 Irregular banded biotite/carbonate/ minor chlorite at 65 degrees to the core axis.

186.8 - 187.5 Irregular banded biotite/carbonate/minor chlorite alteration

189.6 - 190.1 Gabbro dyke; pyroxene porphyry; 2d

191.5 - 192.5 Banded biotite/carbonate alteration at 55-60 degrees to the core axis, 15-20% biotite, 10% carbonate

195.6 - 195.9 75-100% light grey carbonate alteration

196.5 - 196.7 75-100% carbonate alteration

198.3 - 198.7 75-100% carbonate alteration

202.2 - 202.95 Irregular banded biotite/carbonate/minor chlorite alteration at 45-50 degrees to the core axis.

203.85 - 204.75 Irregular banded biotite/carbonate/minor chlorite alteration at 45-60 degrees to the core axis.

208.3 - 208.7 Irregular banded carbonate/biotite/minor carbonate alteration, local quartz veinlets.

210.0 - 210.5 50% carbonate alteration

210.5 - 214.6 Pervasive carbonate alteration 50-75%;

211.7 - 214.6 extensively fractured and broken core - fault zone, hematite stain along fractures.

214.6 - 238.8 Foliation at 45-55 degrees to the core axis, generally weakly banded biotite/carbonate alteration, 0-25% dark brown biotite, average 10-15%; 10-100% carbonate alteration, average 20-30%, rare quartz veinlets, local magnetite, local talc along fractures.

214.2 - 215.5 Pervasive 50-100% carbonate alteration

229.4 - 231.4 Foliation - banding of biotite/carbonate alteration at 45-50 degrees to the core axis, irregular to regular banding

233.45 - 234.25 Irregular banded carbonate/biotite/minor green talc alteration

236.0 - 236.65 Extensive fractured - broken core-fault, pervasive carbonate alteration

238.1 - 238.8 5% green talc veining- irregular and random

238.8 - 239.4 Pervasive 50-100% carbonate alteration.

239.4 - 240.9 Pervasive 25-100% talc-light grey carbonate alteration, foliation at 45-50 degrees to the core axis.

240.9 - 241.2 Granodiorite dyke; 4a

241.2 - 242.1 Pervasive 100% talc-carbonate alteration.

242.1 - 242.6 25% dark brown biotite alteration

242.6 - 243.4 50-100% pervasive talc-carbonate alteration

243.4 - 243.8 10% biotite alteration; 25% carbonate

243.8 - 244.7 50-75% pervasive talc-carbonate alteration; magnetite present

244.7 - 245.8 10-15% biotite, 25% carbonate  
alteration  
245.8 - 246.55 25-50% pervasive carbonate  
alteration; 2-3% magnetite as stringers.  
246.55 - 247.5 10-20% biotite alteration;  
10-25% carbonate alteration

Gradational contact

247.5      248.5      BASALT FLOW; THOLEIITE?; 1a

Similar to Type 1a; Medium - dark grey, fine  
grained (<1mm), massive, 35-45% plagioclase,  
55-65% pyroxene, essentially undeformed and  
unaltered.

Sharp contact

248.5      264.2      BASALT FLOW; KOMATIITE?; 1a

Dark grey, fine grained (<1mm), massive, 25-  
30% plagioclase, 65-70% pyroxene, 3-10%  
magnetite as irregular stringers, local light  
grey carbonate alteration.

253.1 - 253.2 50% pervasive carbonate  
alteration  
254.3 - 254.7 25-50% pervasive carbonate  
alteration  
257.9 - 258.85 25% pervasive carbonate  
alteration  
259.6 - 259.9 25% pervasive carbonate  
alteration  
260.1 - 260.7 25-50% pervasive carbonate  
alteration

264.2      264.2      END OF HOLE

## DIAMOND DRILL HOLE LL-89-10

Location: Line 37+87.5 West; 12+25 South

SAMPLE NUMBER	FROM(m)	TO(m)	INTERVAL(m)	ASSAY (oz/ton)
576	4.8	6.3	1.5	<0.001
577	7.4	8.9	1.5	0.001
578	8.9	10.4	1.5	<0.001
579	10.4	11.6	1.2	<0.001
580	13.5	15.0	1.5	<0.001
581	15.0	16.5	1.5	<0.001
582	16.5	18.3	1.8	<0.001
583	18.3	18.9	0.6	<0.001
584	18.9	20.4	1.5	<0.001
585	24.0	25.3	1.3	0.001
585	24.0	25.3	1.3	<0.001 check
586	25.3	26.6	1.3	<0.001
587	28.1	29.4	1.3	<0.001
588	29.4	30.25	0.85	<0.001
589	30.25	31.45	1.2	<0.001
590	31.45	33.0	1.55	<0.001
591	33.0	34.0	1.0	<0.001
592	34.0	35.0	1.0	<0.001
593	35.0	36.5	1.5	0.001
594	36.5	37.4	0.9	<0.001 check
595	37.4	38.9	1.5	<0.001
596	38.9	40.4	1.5	<0.001
597	40.4	40.75	0.35	<0.001
598	40.75	42.25	1.5	<0.001
599	42.25	43.75	1.5	0.001
600	46.4	47.9	1.5	<0.001
601	47.9	48.9	1.0	0.001
602	52.25	53.25	1.0	0.001
603	54.5	56.0	1.5	<0.001 check
604	56.0	57.5	1.5	0.001
605	57.5	58.45	0.95	0.001
606	58.45	59.4	0.95	0.013
607	59.4	60.4	1.0	0.003
608	60.4	61.4	1.0	0.002
609	63.35	64.35	1.0	0.001
610	64.35	65.4	1.05	0.001
611	65.4	66.9	1.5	0.002
612	66.9	68.4	1.5	0.009
612	66.9	68.4	1.5	0.012 check
613	68.4	69.9	1.5	0.002
614	69.9	71.4	1.5	0.002
615	71.4	72.65	1.25	<0.001
616	73.95	75.5	1.55	<0.001
617	75.5	77.0	1.5	<0.001
618	77.0	78.5	1.5	<0.001
619	78.5	80.0	1.5	<0.001
620	80.0	81.5	1.5	<0.001
621	81.5	82.5	1.0	<0.001 check

622	84.15	85.6	1.45	<0.001
623	85.6	87.1	1.5	0.001
624	87.1	88.1	1.0	0.001
625	88.1	89.15	1.05	<0.001
626	89.15	89.85	0.7	<0.001
627	91.7	92.7	1.0	0.001
628	94.1	95.1	1.0	<0.001
629	95.1	96.1	1.0	0.001
630	97.55	99.0	1.45	<0.001 check
631	99.0	100.4	1.4	<0.001
632	100.4	101.4	1.4	<0.001
633	103.05	104.4	1.35	0.001
634	105.5	106.2	0.7	<0.001
635	106.2	107.2	1.0	<0.001
636	108.5	110.0	1.5	<0.001
637	110.0	111.5	1.5	0.002
638	111.5	113.0	1.5	<0.001
639	113.0	114.8	1.8	<0.001 check
640	114.8	115.5	0.7	<0.001
641	115.5	116.5	1.0	<0.001
642	116.5	117.4	0.9	<0.001
643	121.7	123.2	1.5	<0.001
644	123.2	124.3	1.1	0.001
645	124.3	125.5	1.2	<0.001
646	126.5	127.5	1.0	0.001
647	129.05	130.45	1.4	0.001
648	130.9	131.9	1.0	<0.001 check
649	131.9	133.45	1.55	0.001
650	133.45	135.0	1.55	0.001
651	135.0	136.0	1.0	<0.001
652	136.0	137.5	1.5	0.001 check
653	137.5	138.7	1.2	0.029
654	138.7	140.2	1.5	0.011
655	140.2	141.6	1.4	0.003
656	141.6	143.0	1.4	0.003
657	143.0	144.5	1.5	0.007
658	144.5	145.9	1.4	0.002
659	145.9	147.4	1.5	<0.001
660	147.4	148.0	0.6	<0.001
661	149.2	150.7	1.5	<0.001
662	150.7	152.4	1.7	0.001 check
663	152.4	153.9	1.5	0.001
664	153.9	155.1	1.2	0.001
665	155.1	156.9	1.8	0.001
666	156.9	158.4	1.5	0.007
667	158.4	159.9	1.5	0.010
668	159.9	161.4	1.5	0.001
669	161.4	162.9	1.5	0.007
670	162.9	164.3	1.4	0.001
671	164.3	165.55	1.25	0.001 check
672	165.55	167.1	1.55	0.002
673	167.1	168.6	1.5	0.003
674	170.05	171.3	1.25	0.001
675	172.8	174.3	1.5	0.001

676	177.95	178.9	0.95	0.001
677	180.8	182.3	1.5	<0.001
678	184.5	185.5	1.0	<0.001
679	186.1	187.5	1.4	<0.001
680	188.4	189.6	1.5	0.001 check
681	191.4	192.6	1.2	<0.001
682	192.6	194.1	1.5	0.001
683	195.5	196.5	1.0	<0.001
684	197.5	199.0	1.5	<0.001
685	202.05	203.0	0.95	0.002
686	203.0	204.0	1.0	0.001
687	204.0	204.8	0.8	0.001
688	207.8	208.8	1.0	0.001
689	209.9	210.8	0.9	<0.001
689	209.9	210.8	0.9	0.001 check
690	214.0	215.5	1.5	0.001
691	215.5	217.0	1.5	<0.001
692	219.6	221.1	1.5	0.001
693	222.6	223.8	1.2	0.002
694	229.2	230.3	1.1	0.003
695	230.3	231.85	1.55	0.001
696	233.45	234.4	0.95	0.001
697	234.4	235.3	0.9	0.001
698	238.3	239.3	1.0	0.002
698	238.3	239.3	1.0	0.004 check
699	240.6	242.1	1.5	0.001
700	244.1	244.85	0.75	0.001
701	244.85	245.8	0.95	<0.001
702	249.0	250.0	1.0	<0.001
703	257.9	258.85	0.95	<0.001

## DIAMOND DRILL RECORD

## LAIRD LAKE PROJECT

HOLE NUMBER: LL-89-19 LOCATION: Line 13+00W; 7+35S

AZIMUTH: 0 degrees DIP: -50 degrees LENGTH: 178.9m

DRILLED BY: N. Morissette CORE DIAMETER: BQ CASING: 2.15m

STARTED: April 8, 1989 FINISHED: April 10, 1989

LOGGED BY: Murray C. Rogers SYSTEM: Metric

ACID TESTS:	61.0m	-49.0 degrees
	124.0m	-44.5 degrees
	178.9m	-44.0 degrees

FOOTAGE From	To	DESCRIPTION
0.0	2.15	OVERBURDEN
2.15	13.0	MAFIC VOLCANIC MYLONITE; 1am  Dark grey, aphanitic-fine grained (<1mm), well developed foliation at 60-65 degrees to the core axis, 75-100% silicification, no original texture or composition remaining, common, minor sericite along foliation surfaces, nil to <0.5% disseminated pyrite, occasional grey quartz veinlets generally parallel to foliation - narrow (1-10mm) Type 1am  Sharp contact
13.0	13.9	GABBRO DYKE; 2a  Dark grey, fine grained (<1mm), weak foliation at 60-65 degrees to core axis, 40-50% plagioclase, 40-50% pyroxene, 10% dark brown biotite alteration, 1% disseminated pyrite. Type 2a.  Sharp contact
13.9	16.1	MAFIC VOLCANIC MYLONITE; 1am  Same as Type.

15.4 - 15.55 100% silicification, 1-2% disseminated pyrite. Type 2a.

Sharp contact

16.1      27.45

QUARTZ - FELDSPAR PORPHYRY; PROTOMYLONITE-MYLONITE; 5bm

Medium - dark grey, variably stretched bluish - grey quartz and plagioclase phenocrysts (2-3mm), in an aphanitic to fine grained (<1mm), matrix, weak to strong foliation at 60-65 degrees to the core axis, least altered and deformed rock: 10-15% phenocrysts, 2-3% bluish-grey quartz and 8-12% plagioclase, groundmass, 30-40% plagioclase and 60-70% pyroxene which is locally altered to biotite, variably silicified (10-100%), average 50-75%, minor sericite developed along foliation surfaces, 0.5-1% disseminated pyrite, locally to 10% as blebs and stringers parallel to foliation, minor, local quartz veinlets generally parallel to foliation. Type 5bm.

16.1 - 16.6 75-100% silicification; 0.5-1% pyrite.

16.6 - 17.45 100% silicification, 3-10% pyrite as blebs and stringers parallel to foliation.

17.45 - 18.5 80-100% silica; 1-2% disseminated pyrite

18.5 - 20-15 50-75% silica; 0.5-1% pyrite

20.15 - 21.25 75-100% silica; 0.5% pyrite

21.25 - 22.6 Protomylonite, weakly deformed and altered, 0-50% silica, 0.5-1% pyrite.

22.6 - 23.85 50-100% silica, 0.5% pyrite.

23.85 - 24.1 Fine grained (<1mm) gabbro dyke

24.1 - 26.1 50-75% silica, 0.5-1% disseminated pyrite; foliation at 60 degrees to the core axis.

26.1 - 27.45 80-100% silica, 0.5% pyrite

Sharp contact

27.45      34.8

BASALT FLOW; RELATIVELY UNDEFORMED - PROTOMYLONITE; 1a - 1am

Dark grey, fine grained (<1mm), massive to weak foliation at 60-65 degrees to the core axis, 30-40% plagioclase, 60-70% pyroxene, 0.5% disseminated pyrite - locally to 1%,

unaltered to variably silicified (0-100%), common local dark brown biotite alteration (10-25%), local quartz veinlets - irregular to straight, random to parallel to foliation, narrow (1-10mm). Type 1a - 1am

27.45 - 28.45 25-50% silica, 0.5-1% pyrite  
29.0 - 29.2 quartz - feldspar porphyry,  
protomylonite; 5bm; 50-75% silica  
31.05 - 31.2 100% silica  
33.4 - 33.9 Tuff unit, protomylonite; 1cm;  
grain size 1-2mm.  
34.25 - 34.8 same as 33.4 - 33.9

Sharp contact

34.8      41.45      QUARTZ - FELDSPAR PORPHYRY MYLONITE; 5bm  
  
Same as Type; well developed foliation at 60-  
70 degrees to the core axis, 75-100% silica,  
0.5-1% disseminated pyrite, locally to 2%,  
remnant stretched quartz and feldspar  
phenocrysts.

35.6 - 35.8 Fine grained (1mm) gabbro dyke  
38.4 - 38.9 Light grey granodiorite dyke,  
protomylonite; 4am  
40.1 - 40.45 Light grey granodiorite dyke,  
protomylonite; 4am

Sharp contact

41.45      58.2      GRANODIORITE; RELATIVELY UNDEFORMED TO MINOR  
PROTOMYLONITE; 4a - 4am

Light grey, medium grained (2-3mm), massive  
to weakly foliated at 65-70 degrees to the  
core axis, 10-15% quartz, 15-20% biotite, 65-  
75% feldspar, plagioclase > K-feldspar, weak  
magnetite content, <0.5% disseminated pyrite,  
occasional light green silica veinlets and  
grey quartz veinlets - generally irregular,  
random and narrow (1-10mm), decrease in grain  
size to 1-2 mm near downhole contact. Type 4a  
- 4am.

47.05 - 47.2 Basalt xenolith

Sharp contact

- 58.2      60.4      BASALT FLOW; UNDEFORMED TO WEAK  
PROTOMYLONITE; 1a - 1am  
  
Similar to Type; weak foliation at 55 degrees, to core axis, unaltered to weakly altered, local dark brown biotite alteration (to 10%).  
  
Sharp contact
- 60.4      62.4      GRANODIORITE; PROTOMYLONITE; 4a - 4am  
  
Same as Type; weakly developed foliation.  
  
Sharp contact
- 62.4      64.1      MAFIC VOLCANIC MYLONITE; 1am  
  
Same as Type; well developed foliation at 60 degrees to the core axis, 50-100% silica, 5-15% dark brown biotite, <0.5% disseminated pyrite.  
  
Sharp contact
- 64.1      85.1      QUARTZ - FELDSPAR PORPHYRY; PROTOMYLONITE -  
MYLONITE; 5bm  
  
Same as Type; remnant stretched quartz and feldspar phenocrysts, well developed foliation at 65-70 degrees to the core axis, 25-100% silica, 0.5-1% disseminated pyrite- locally to 2%, local minor quartz veinlets parallel to foliation.  
  
72.55 - 72.85 Light pink granodiorite dyke;  
4a  
72.85 - 74.05 75-100% silica  
75.1 - 76.2 50-100% silica  
75.7 - 76.8 100% silica  
79.35 - 83.9 75-100% silica, 0.5-1% disseminated pyrite, foliation at 65 - 80 degrees to core axis.  
  
Sharp contact
- 85.1      87.4      BASALT FLOW; 1a  
  
Undeformed and unaltered; similar to Type; dark grey, fine grained (<1mm), massive, 25-35% plagioclase, 65-75% pyroxene, <0.5% pyrite, common (1-2%) silica veinlets-

- irregular to straight, random, narrow (1-3mm).
- Sharp contact
- 87.4      89.5      QUARTZ - FELDSPAR PORPHYRY PROTOMYLONITE; 5bm  
Similar to Type; weak foliation at 80 degrees to the core axis, remnant stretched quartz and feldspar phenocrysts, variably silicified (50-100%), 0.5% pyrite locally 1%.
- Sharp contact
- 89.5      90.85     BASALT FLOW; 1a  
Similar to 85.1 - 87.4; 20-50% dark brown biotite alteration.  
89.9 - 90.05 Quartz-feldspar porphyry dyke;  
5b
- Sharp contact
- 90.85     91.65     QUARTZ - FELDSPAR PORPHYRY PROTOMYLONITE; 5bm  
Similar to Type; weak foliation at 65-70 degrees to core axis, 25-50% silica.
- Sharp contact
- 91.65     92.25     BASALT FLOW; 1a  
Similar to 85.1 - 87.4; 20-50% dark brown biotite alteration
- Sharp contact
- 92.25     96.1      QUARTZ - FELDSPAR PORPHYRY PROTOMYLONITE -  
MYLONITE; 5bm  
Similar to Type; weak to well developed foliation at 65-70 degrees to the core axis, variably altered, 0-100% silica (average 25-50%), 0.-25% biotite locally, 0.5% disseminated pyrite, rarely to 2-3% as blebs and stringers parallel to foliation.  
92.25 - 94.3 25-50% silica; local biotite to 25%

94.3 - 94.4 basalt xenolith  
94.4 - 94.75 75- 100% silica  
94.75 - 94.95 basalt xenolith  
95.2 - 95.35 basalt xenolith  
95.35 - 96.1 25-75% silica

sharp contact

96.1      100.7      BASALT FLOW; 1a

Undeformed to weakly foliated; similar to  
85.1 - 87.4; weak silica local (5-25%),  
local, minor (5-15%), dark brown biotite  
alteration, <0.5% disseminated pyrite,  
locally to 1-2%

Gradational contact over 50cm.

100.7      123.5      MAFIC VOLCANIC PROTOMYLONITE - MYLONITE; 1am

Similar to Type; weak to well developed  
foliation at 60-65 degrees to core axis,  
variably altered, 10-100% silica, average 25-  
75%, local biotite alteration (10-25%), <0.5%  
disseminated pyrite, locally to 2-3% as blebs  
and stringers, occasional silica or grey  
quartz veinlets - irregular to straight,  
random to parallel to foliation and narrow  
(1-20mm).

101.4 - 101.7 75-100% silica  
102.1 - 107.6 50-100% silica  
107.6 - 107.9 10% biotite, 15-30% fine  
grained sericite  
107.9 - 109.2 25% biotite alteration  
109.2 - 112.2 75-100% silica, common (1-2%)  
white silica veinlets - generally irregular,  
random and narrow (1-5mm, occasionally to  
2cm).  
112.2 - 112.55 Gabbro dyke; 2a  
112.55 - 113.75 80-100% silica, 1% silica  
veinlets.  
113.75 - 114.35 25% biotite alteration, minor  
carbonate alteration  
114.35 - 18.15 100% silica, 1-2% white silica  
veinlets - locally to 5-10% as a stockwork.  
115.2 - 115.55 Remnant intrusive dyke, 2-3mm  
grain size, 100% silica.  
117.15 - 117.8 5-10% white silica veinlets as  
an irregular stockwork.  
118.15 - 119.2 50% silica  
119.2 - 121.65 100% silica, 1-2% white silica

and grey quartz veinlets generally parallel to foliation.  
121.65 - 123.5 25-75% silica, common biotite (5-20%)  
Gradational contact over 1.0 metre.

123.5      126.0      BASALT FLOW; WEAK PROTOMYLONITE; 1a - 1am  
Similar to Type; weak foliation at 65 degrees to core axis, unaltered to weakly altered, common silica (10-25%), common dark brown biotite alteration (5-25%), <0.5% pyrite.  
Gradational contact over 1.0 metre.

126.0      138.55      MAFIC VOLCANIC PROTOMYLONITE - MYLONITE; 1am  
Similar to Type; weak to locally well developed foliation at 65 degrees to core axis, variably altered, 10-50% silica, local narrow sections to 100%, minor (5-15%) biotite locally, occasional narrow (1-5mm) silica veinlets generally parallel to foliation, <0.5% disseminated pyrite.  
136.0 - 137.0 15-25% biotite alteration; minor, pervasive carbonate alteration; possible fine grained gabbro dyke.  
138.45 - 138.55 Grey quartz vein at about 45 degrees to core axis.  
Sharp contact

138.55      140.15      GABBRO; 2a  
Similar to Type; fine grained (1-2mm), some pyroxene alteration up to 10% dark brown biotite, 0.5-1% disseminated pyrite, common (1%) white silica and occasional grey quartz veinlets.  
Sharp contact

140.15      143.0      BASALT FLOW; 1a  
Similar to Type; relatively undeformed and unaltered.  
Gradational contact over 50 cm.

- 143.0      144.7      MAFIC VOLCANIC PROTOMYLONITE; 1am  
Similar to Type; weak foliation at 60 degrees to core axis, variably altered, 10-50% silica, local biotite alteration (10-25%), occasional grey quartz veinlets parallel to foliation.  
Gradational contact over 50 cm.
- 144.7      146.75      BASALT FLOW; 1a  
Similar to Type; relatively undeformed and unaltered; local minor silica or biotite alteration.  
Gradational contact over 20 cm.
- 146.75      156.2      MAFIC VOLCANIC PROTOMYLONITE; 1am  
Similar to Type; weak to good foliation at 70-75 degrees to core axis, variably altered, 0-100% silica, average 20-50%; local dark brown biotite alteration (5-25%), <0.5% disseminated pyrite, locally to 1-2%, occasional silica or grey quartz veinlets parallel to foliation.  
146.75 - 147.9 75-100% silica  
147.9 - 149.4 25% silica, 15-25% biotite alteration  
149.4 - 150.5 5-10% biotite, local 5-10% chlorite, minor (5-20%) silica.  
150.5 - 151.35 Unaltered to 50% silica  
151.35 - 151.85 Gabbro dyke; 2a; extensive biotite and chlorite alteration  
151.85 - 152.65 25-75% silica  
152.65 - 156.2 10-50% silica, average 15-25%, common biotite alteration (10-25%).  
Sharp contact
- 156.2      159.7      DIORITE; PROTOMYLONITE; 2cm  
Medium grey, fine - medium grained (1-2mm), weak foliation at 55-60 degrees to core axis, 5-10% quartz, 10-15% biotite, 75-85% feldspar, plagioclase > K-feldspar, 0.5-1% disseminated pyrite, common light green silica veinlets. Type 2cm.  
157.5 - 157.65 basalt xenolith

Sharp contact

159.7      160.6      BASALT FLOW; PROTOMYLONITE; 1am  
Same as Type; weak foliation at 60 degrees to core axis, unaltered.

Sharp contact

160.6      161.7      DIORITE; PROTOMYLONITE; 2cm  
Same as Type.

Sharp contact

161.7      168.8      BASALT FLOW; 1a  
Similar to Type; relatively undeformed; weak foliation locally at 60 degrees to core axis, unaltered to locally altered, locally silicified, local dark brown biotite alteration (5-15%), 1% white silica veinlets.  
163.4 - 164.0 25-50% silica  
166.2 - 166.4 50% silica  
168.5 - 168.8 50% silica  
Gradational contact over 20 cm.

168.8      178.9      MAFIC VOLCANIC PROTOMYLONITE; 1am  
Similar to Type; weak to locally well developed foliation at 50-55 degrees to core axis, variably altered, 10-100% silica, local biotite alteration (5-25%), <0.5% pyrite, occasional grey quartz veinlets parallel to foliation.  
168.8 - 170.0 50% silica  
171.4 - 172.5 50-100% silica  
172.5 - 172.7 25% biotite alteration  
172.7 - 178.9 50-100% silica

178.9      178.9      END OF HOLE

## DIAMOND DRILL HOLE LL-89-19

Location: Line 13+00 West; 7+35 South

SAMPLE NUMBER	FROM(m)	TO(m)	INTERVAL(m)	ASSAY (oz/ton)
704	2.15	3.66	1.51	<0.001
705	3.66	5.2	1.55	<0.001
706	5.2	6.7	1.5	<0.001
707	6.7	7.9	1.2	<0.001 check
708	7.9	9.4	1.5	<0.001
709	9.4	10.9	1.5	<0.001
710	10.9	12.4	1.5	<0.001
711	12.4	13.0	0.6	0.002
712	13.9	14.9	1.0	<0.001
713	14.9	16.1	1.2	<0.001
714	16.1	16.6	0.5	0.001
715	16.6	17.45	0.85	0.001
716	17.45	18.5	1.05	<0.001 check
717	18.5	20.0	1.5	<0.001
718	20.0	21.5	1.5	<0.001
719	21.5	22.6	1.1	<0.001
720	22.6	24.1	1.5	<0.001
721	24.1	25.1	1.0	<0.001
722	25.1	26.1	1.0	<0.001
723	26.1	27.45	1.35	<0.001
724	27.45	28.45	1.0	<0.001
725	30.6	31.3	0.7	<0.001 check
726	33.8	34.8	1.0	0.001
727	34.8	36.3	1.5	<0.001
728	36.3	37.8	1.5	0.001
729	37.8	39.3	1.5	<0.001
730	39.3	40.45	1.15	0.001
731	40.45	41.45	1.0	<0.001
732	41.45	42.45	1.0	<0.001
733	47.2	48.2	1.0	0.001
734	53.2	54.2	1.0	<0.001
734	53.2	54.2	1.0	0.001 check
735	57.2	58.2	1.0	<0.001
736	58.2	59.2	1.0	0.001
737	61.4	62.4	1.0	<0.001
738	62.4	64.1	1.7	<0.001
739	64.1	65.45	1.35	0.001
740	65.45	66.9	1.45	0.001
741	66.9	68.4	1.5	<0.001
742	68.4	69.7	1.3	<0.001
743	69.7	71.2	1.5	<0.001 check
744	71.85	73.35	1.5	<0.001
745	73.35	75.1	1.75	<0.001
746	75.10	75.90	0.8	<0.001
747	75.9	76.8	0.9	<0.001
748	76.8	78.3	1.5	<0.001
749	78.3	79.8	1.5	0.001
750	79.8	81.2	1.4	0.001

751	81.2	82.8	1.6	<0.001
752	82.8	84.0	1.2	0.001
752	82.8	84.0	1.2	0.002 check
753	84.0	85.5	1.5	<0.001
754	86.85	88.35	1.5	0.001
755	88.35	89.5	1.15	<0.001
756	89.5	90.85	1.35	0.003
757	90.85	92.25	1.4	0.001
758	92.25	93.75	1.5	0.001
759	93.75	95.25	1.5	<0.001
760	95.25	96.1	0.85	<0.001
761	96.1	97.1	1.0	0.001
761	96.1	97.1	1.0	<0.001 check
762	97.7	101.2	3.5	0.001
763	101.2	102.7	1.5	<0.001
764	102.7	104.2	1.5	0.001
765	104.2	105.5	1.3	<0.001
766	105.5	107.0	1.5	<0.001
767	107.0	107.6	0.6	<0.001
768	107.6	109.3	1.7	<0.001
769	109.3	110.8	1.5	<0.001
770	110.8	112.2	1.4	<0.001 check
771	112.55	113.75	1.2	<0.001
772	113.75	115.15	1.4	<0.001
773	115.15	116.65	1.5	<0.001
774	116.65	118.15	1.5	<0.001
775	118.15	119.65	1.5	<0.001
776	119.65	120.65	1.0	0.001
777	120.65	121.65	1.0	<0.001
778	121.65	123.0	1.35	<0.001
779	123.0	124.5	1.5	<0.001
779	123.0	124.5	1.5	0.001 check
780	124.5	126.0	1.5	<0.001
781	126.0	127.5	1.5	0.001
782	127.0	129.0	2.0	<0.001
783	129.0	130.5	1.5	0.001
784	130.5	132.0	1.5	<0.001
785	132.0	133.5	1.5	<0.001
786	133.5	135.0	1.5	<0.001
787	135.0	136.0	1.0	<0.001
788	136.0	137.0	1.0	<0.001 check
789	137.0	138.55	1.55	<0.001
790	142.7	143.9	1.2	<0.001
791	143.9	145.4	1.5	<0.001
792	146.75	147.9	1.15	<0.001
793	147.9	149.4	1.5	<0.001
794	149.4	150.5	1.1	<0.001
795	150.5	151.35	0.85	<0.001
796	151.85	153.15	1.3	<0.001
797	153.15	154.65	1.5	<0.001 check
798	154.65	156.2	1.55	<0.001
799	156.2	157.2	1.0	<0.001
800	163.2	164.2	1.0	<0.001
801	165.7	166.7	1.0	<0.001

802	168.2	169.8	1.6	<0.001
803	170.8	172.3	1.5	0.001
804	173.8	175.3	1.5	<0.001
805	176.65	177.85	1.2	<0.001 check

## DIAMOND DRILL RECORD

## LAIRD LAKE PROJECT

HOLE NUMBER: LL-89-20                    LOCATION: Line 15+00W; 7+25S  
 AZIMUTH: 0 degrees        DIP: -50 degrees        LENGTH: 123.1m  
 DRILLED BY: N. Morissette        CORE DIAMETER: BQ CASING: 3.66m  
 STARTED: April 10, 1989                    FINISHED: April 11, 1989  
 LOGGED BY: Viera Kovac                    SYSTEM: Metric  
 ACID TESTS: 60.95m        -48 degrees  
               121.91m        -46 degrees

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FOOTAGE		DESCRIPTION
From	To	
0.0	1.9	OVERBURDEN
1.9	23.4	BASALT; MYLONITE; 1am  Fine grained, moderately foliated, medium greenish-grey, non-magnetic, non-carbonated, siliceous volcanic. Strong silicification 80-100%, sparse 5-10%, thin (1-2mm) quartz-carbonate stringers, minor microfaults near the uphole contact. Moderate to local strong foliation is 55-70 degrees to the core axis. Trace to 1% fine, disseminated pyrite generally associated with quartz stringers or with strongly silicified sections. Very minor 1-2% local brown biotite alteration. Sharp downhole contact at a very low angle; 25 degrees to the core axis.
3.35	6.2	Strongly silicified 70-100%, with local 1% pyrite, disseminated and as hairline stringers.
3.45	8.5	Microfaults parallel to the core axis, with a displacement of 3-4mm.
9.0	9.8	Mafic Tuff; 1b Fine grained, weakly foliated with 3-5% brown biotite. Sharp contacts parallel to foliation.
9.8	10.4	80% silica with rare hard, pink mineral (garnet?)
11.5	11.7	Strong quartz-carbonate stringers

at a low angle to the core axis.

15.4 - 16.8 70-80% silica, 1% disseminated pyrite and as hairline stringers, minor microfaults.

16.8 - 17.2 Mafic Tuff; 1b

Medium green unit with abundant 15% hairline quartz stringers. Sharp downhole contact at 20 degrees to the core axis, broken and obscured uphole contact.

18.05 - 18.45 Mafic Tuff; 1b

Similar to above, except there are only rare hairline quartz stringers here. Sharp contacts perpendicular to the core axis.

19.5 - 19.9 Mafic Tuff; 1b

10% biotite alteration, 5-10% quartz hairline stringers. Sharp uphole and downhole contacts 55-65 degrees to the core axis respectively.

19.9 - 21.2 90% silica, 1% disseminated and hairline pyrite stringers.

21.55 - 21.9 Mafic Tuff; 1b

Medium to coarse grained, massive, medium grey unit with 45%, 1-3mm diameter, white feldspar crystals in a fine mafic, 15% biotite enriched matrix. Sharp uphole and downhole contacts 55 and 50 degrees to the core axis, respectively.

21.9 - 23.0 60-80% silica, trace to 1% pyrite

23.4      44.8

#### GRANODIORITE; MYLONITE; 4am

Medium grained, moderately foliated, medium grey with local tan sections. Good crystalline texture with 40%, 1-3mm lensoidal feldspar crystals, oriented in the direction of foliation. Strong (3-5%) pyrite, disseminated, predominantly near the uphole contact. Very rare, local magnetite, sparse 2%, 1mm wide quartz-carbonate stringers near the uphole contacts. Foliation is 70 degrees to the core axis.

23.4 3% pyrite (disseminated and as hairline stringers parallel to the foliation).

23.5 - 23.55 broken and blocky core

23.4 - 25.15 3% pyrite (disseminated and as hairline stringers parallel to the foliation).

26.0 - 28.4 1-2% pyrite stringers parallel to the foliation.

28.1 - 28.4 60% blocky core

31.7 - 34.2 Basalt; 1a

Fine grained to coarse grained, massive to very weakly foliated near the uphole contact. Medium green to greyish-green colour, 10% biotite alteration. Sharp uphole and downhole contacts at 60 degrees to the core axis.

31.7 - 32.5 Moderately foliated, 3-5% 3-5mm diameter feldspar grains, 3% biotite alteration. Sparse 1-2% hairline quartz stringers randomly oriented. Trace pyrite.

33.5 - 34.2 coarse grained volcanic flow. massive 2-3mm diameter, green, sub-rounded (subhedral?) hornblende crystals. Weak to moderate crystalline texture. No visible sulphides.

35.1 - 37.3 Granodiorite; mylonite; 4am 5-10% pyrite enrichment (as disseminated and as stringers parallel to the foliation). Minor local microfaults near the uphole contact, but this unit is gradational with the rest of the granodiorite unit. Very rare, local magnetite?. Foliation is 65 degrees to the core axis.

35.35 - 35.4 magnetite associated with minor pyrite.

39.3 - 39.5 3-5% pyrite as disseminated and as hairline stringers in mylonitized granodiorite.

40.15 - 40.3 Basalt; mylonite; 1am Fine grained, weakly foliated, medium green with 1mm diameter darker green mafic (hornblende) crystals, somewhat lensoidal. Sharp contacts at 70 degrees to the core axis

41.6 - 41.8 Basalt; mylonite; 1am 30% wispy, pervasive carbonate, minor biotite. Sharp contacts at 55 degrees to the core axis.

44.5 - 44.6 Siliceous, bleached white feldspar interval with 10%, 1mm diameter clear quartz eyes. Non-magnetic, non-carbonated.

44.8

72.5

BASALT; MYLONITE; 1am

Fine to medium grained, massive to very weakly foliated, locally moderately foliated, medium greyish-green in colour. Foliation is 55 degrees to the core axis. Minor tuffaceous intervals, also minor local 10% biotite, predominantly associated with tuffaceous

sections and coarser grained intervals, Non-magnetic, non-carbonated. Trace to 2% local pyrite, Minor microfault with a displacement of upto 3mm. Gradational downhole contact.

46.2 - 46.4 Basalt tuff; 1b

Fine grained, massive, brownish - grey with 1-2% fine grained pyrite, minor biotite. Sharp uphole and downhole contacts, at 70 and 75 degrees to the core axis, respectively.

46.4 - 48.0 1-2% very fine grained disseminated subhedral and euhedral pyrite. 70% silica, local minor microfaults.

47.2 - 47.4 Granitic dyke, sharp contacts

47.4 - 47.7 Coarse grained basalt flow.

53.6 - 53.65 Granitic dyke with 1% pyrite along the downhole contact 70 degrees to the core axis.

59.7 - 64.25 Moderately well silicified, 60-80% silica with 1% fine grained disseminated pyrite as well as local pyrite stringers.

70.9 - 72.0 Moderately siliceous orangish-grey unit.

72.5 89.8

BASALT WITH GRANODIORITE CONTAMINATION; 4c

This unit is composed of basalt and granodiorite, forming a hybrid rock, with a variable mineralogical composition. Possibly formed from the granitization of the mafic volcanics. This hybrid rock is non-magnetic with locally abundant quartz-carbonate stringers and 3-5% hairline greenish quartz stringers randomly oriented. Minor, local microfaults with a displacement of 5mm. Weakly silicified, trace pyrite. Gradational uphole contact, distinct, but obscured downhole contact.

BASALT: Fine grained, massive to locally very weakly foliated, medium greenish-grey unit with rare trace pyrite.

GRANODIORITE: Medium grained, massive, pinkish near the uphole contact, equigranular, crystalline texture. Occurs as dykelets and as partially digested stringers and blebs. No visible sulphides. Granodiorite dykes vary from 1cm - 1.5m in width.

72.7 - 74.2 Granodiorite

Medium grained, equigranular, crystalline,

pinkish-grey with 10% hairline quartz stringers at a low angle to the core axis. Local micro-faults, rare trace pyrite. Sharp uphole and downhole contacts at 80 and 55 degrees to the core axis, respectively.

75.65 - 76.1 Granodiorite, similar to the above, obscured uphole contact, sharp downhole contact at 25 degrees to the core axis.

77.35 - 77.5 Granodiorite, fine grained, orangish-pink in colour with a felsic matrix. Very rare trace pyrite.

83.75 - 84.1 Pyroxene Porphyry; 2d. 30%, 3-5mm, subhedral and euhedral pyroxene in a fine grained felsic, pinkish matrix. No visible sulphides, non-carbonated.

85.5 - 86.4 Basalt with 35% carbonate alteration as wispy stringers generally associated with quartz veinlets. Rare trace disseminated pyrite.

88.8 - 89.8 Gabbro; Medium grained, massive, crystalline texture with well developed euhedral 1-2mm hornblende crystals in a fine grained, mafic matrix. No visible sulphides.

89.0 123.1

KOMATIITE WITH GRANODIORITE CONTAMINATION;  
1a (kom?)4a

This unit is predominantly composed of komatiite cross-cut with 20% granodiorite dykes. These granodiorite dykes contain 10-80% komatiite xenoliths.

Komatiite: Very fine grained, medium grey, magnetic, non-carbonated, non to very weakly, locally silicified. 5% black hairline stringers randomly oriented.

Granodiorite: Coarse grained, crystalline, equigranular with 10-80%, subangular komatiite xenoliths. These xenoliths range from 3mm to 20cm in diameter, they have thick 2-3mm (sericitic??) reaction rims (rind). Trace to 1% local pyrite. Biotite enriched (10-20%). Feldspar is predominantly plagioclase.

91.0 - 92.0 Granodiorite with 50% xenoliths, 1% local disseminated pyrite.

92.4 - 98.0 Komatiite with 10-15% granodioritic dykes

100.0 - 102.7 10% blocky core

100.8 - 101.0 & 102.7 - 102.8 Coarse grained flow with 2% fine grained disseminated pyrite. Non-magnetic.

103.3 - 113.6 35% granodiorite (with xenoliths)

103.3 - 106.2 xenoliths are large, average is 10cm diameter with very distinct, thick reaction rims.

105.4 - 111.5 10-15% blocky core

117.0 - 118.5 80% granodiorite, weakly silicified. Trace pyrite.

120.6 - 120.8 Mafic volcanic with 10% pyrite occurring as a 2cm wide veinlet.

123.1      123.1      END OF HOLE

## DIAMOND DRILL HOLE LL-89-20

Location: Line 15+00 West; 7+75 South

SAMPLE NUMBER	FROM(m)	TO(m)	INTERVAL(m)	ASSAY (oz/ton)
806	1.9	3.35	1.45	<0.001
807	3.3	4.9	1.6	<0.001
808	4.9	6.2	1.3	<0.001
809	6.2	7.4	1.2	<0.001
810	7.4	8.85	1.45	<0.001
811	8.85	10.4	1.55	<0.001
812	10.4	11.5	1.1	<0.001
813	11.5	12.9	1.4	<0.001
814	12.9	14.4	1.5	<0.001
815	14.4	15.85	1.45	<0.001 check
816	15.85	17.3	1.45	<0.001
817	17.3	18.75	1.45	<0.001
818	18.75	20.15	1.4	<0.001
819	20.15	21.55	1.4	<0.001
820	21.55	23.0	1.45	<0.001
821	23.0	23.4	0.4	<0.001
822	23.4	24.4	1.0	0.001
823	24.4	25.15	0.75	0.001
824	25.15	26.5	1.35	<0.001 check
825	26.5	27.25	0.75	<0.001
826	27.25	28.4	1.15	<0.001
827	28.4	29.7	1.3	<0.001
828	29.7	30.7	1.0	<0.001
829	30.7	31.7	1.0	<0.001
830	31.7	33.0	1.3	0.001
831	33.0	34.2	1.2	<0.001
832	34.2	35.7	1.5	0.002
833	35.7	37.3	1.6	0.001 check
834	37.3	38.7	1.4	<0.001
835	38.7	40.3	1.6	<0.001
836	40.3	41.8	1.5	<0.001
837	41.8	43.3	1.5	<0.001
838	43.3	44.8	1.5	<0.001
839	44.8	46.2	1.4	<0.001
840	46.2	48.0	1.8	<0.001
841	48.0	49.5	1.5	<0.001 check
842	49.5	51.0	1.5	<0.001
843	51.0	52.5	1.5	<0.001
844	52.5	53.9	1.4	<0.001
845	55.5	56.55	1.05	0.002
846	59.7	61.2	1.5	<0.001
847	62.0	63.8	1.8	0.001
848	64.8	66.1	1.3	<0.001
849	66.1	66.75	0.65	<0.001
850	68.75	69.7	0.95	<0.001
851	71.6	72.7	1.1	<0.001 check
852	74.3	75.65	1.35	<0.001
853	77.6	78.3	1.7	<0.001

854	77.4	78.4	1.0	<0.001
855	85.5	86.4	0.9	<0.001
856	90.0	91.0	1.0	<0.001
857	91.0	92.0	1.0	<0.001
858	93.6	94.9	1.3	<0.001
859	96.7	97.4	0.7	<0.001
860	100.5	102.0	1.5	<0.001 check
861	102.0	104.0	2.0	<0.001
862	106.0	107.5	1.5	<0.001
863	111.0	112.5	1.5	<0.001
864	117.0	118.5	1.5	<0.001
865	118.5	120.0	1.5	<0.001
866	120.0	121.5	1.5	0.001
866	120.0	121.5	1.5	<0.001 check

**Appendix B**

**Rock Assay Certificates**



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## Certificate of Analysis

Page: 1

Murray Rogers  
26053 Black Cliff Mines Ltd.  
Suite 2205, 1 Yonge Street  
Toronto, Ontario  
M5E 1E5

Date: March 2 19 89

Work Order #: 181012  
Project :

SAMPLE NUMBERS	Customer	Gold Oz/T
261276	1001	<0.001
261277	1002	<0.001
261278	1003	0.001
261279	1004	<0.001
261280	1005	<0.001
261281	1006	<0.001
261282	1007	<0.001
261283	1008	<0.001
261284	1009	<0.001
261285	1010	<0.001
261285	1010	Check
261286	1011	<0.001
261287	1012	<0.001
261288	1013	<0.001
261289	1014	0.001
261290	1015	0.001
261291	1016	0.002
261292	1017	<0.001
261293	1018	<0.001
261294	1019	<0.001
261294	1019	Check
261295	1020	<0.001
261296	1021	<0.001
261297	1022	<0.001
261298	1023	0.001
261299	1024	<0.001
261300	1025	0.001
261301	1026	<u>0.011</u>
261302	1027	0.001
261303	1028	<0.001
261303	1028	<0.001 Check

Per: George Duncan

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26054

Murray Rogers  
Black Cliff Mines Ltd.  
Suite 2205, 1 Yonge Street  
Toronto, Ontario

M5E 1E5

Page: 2

Date: March 2 / 19 83

Work Order #: 81212  
Project:

SAMPLE NUMBERS Accurassay	CUSTOMER Customer	Gold Oz/T
261304	1029	0.005
261305	1030	0.001
261306	1031	<0.001
261307	1032	<0.001
261308	1033	<0.001
261309	1034	0.001
261310	1035	0.001
261311	1036	<0.001
261312	1037	0.001
261312	1037	0.001 Check
261313	1038	0.001
261314	1039	0.001
261315	1040	0.001
261316	1041	<0.001
261317	1042	<0.001
261318	1043	0.001
261319	1044	0.001
261320	1045	<0.001
261321	1046	<0.001
261321	1046	<0.001 Check
261322	1047	<0.001
261323	1048	0.001
261324	1049	0.001
261325	1050	0.001
261326	1051	0.001
261327	1052	0.001
261328	1053	<0.001
261329	1054	0.001
261330	1055	0.002
261330	1055	0.001 Check
261331	1056	<0.001

Per: Roger Wm. Smith

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Page: 2

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26055 Suite 2205, 1 Yonge Street  
Toronto, Ontario  
M5E 1E5

Date: March 2 1980

Work Order #: 181213  
Project:

SAMPLE NUMBERS	Customer	Gold Oz/T
Accurassay		
261332	1057	<0.001
261333	1058	<0.001
261334	1059	<0.001
261335	1060	<0.001
261336	1061	<0.001
261337	1062	<0.001
261338	1063	<0.001
261339	1064	<0.001
261339	1064	<0.001 / Check
261340	1065	<0.001
261341	1066	<0.001
261342	1067	<0.001
261343	1068	<0.001
261344	1069	<0.001
261345	1070	<0.001
261346	1071	<0.001
261347	1072	<0.001
261348	1073	0.008
261348	1073	0.011 / Check
261349	1074	<0.001
261350	1075	<0.001
261350	1075	0.001 / Check



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## Certificate of Analysis

Murray Rogers  
Black Cliff Mines Ltd.  
26109 Suite 2205, 1 Yonge Street  
Toronto, Ontario  
M5E 1E5

Page: 1

Date: March 8 1989

Work Order #: 181221  
Project :

SAMPLE NUMBERS	Customer	Gold Oz/T
262275	1076	0.001
262276	1077	<0.001
262277	1078	0.009
262278	1079	0.001
262279	1080	<0.001
262280	1081	<0.001
262281	1082	0.001
262282	1083	<0.001
262283	1084	0.003
262284	1085	<0.001
262285	1086	<0.001
262286	1087	<0.001
262287	1088	0.001
262288	1089	<0.001
262289	1090	0.001
262290	1091	0.003
262291	1092	0.001
262292	1093	0.002
262293	1094	0.007
262293	1094	0.009
262294	1095	0.001
262295	1096	0.001
262296	1097	<0.001
262297	1098	0.002
262298	1099	<0.001
262299	1100	0.001
262300	1101	0.001
262301	1102	<0.001
262302	1103	<0.001
262302	1103	<0.001

Per: Blair. U. A. h



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## Certificate of Analysis

Page 1 of 2

Murray Rogers  
26110 Black Cliff Mines Ltd.  
Suite 2205, 1 Yonge Street  
Toronto, Ontario  
M5E 1E5

Date: March 9

19<sup>xx</sup>

Work Order #: 181221  
Project :

SAMPLE NUMBERS	Customer	Bold
Accurassay		Oz/T
262303	1104	<0.001
262304	1105	<0.001
262305	1106	<0.001
262306	1107	<0.001
262307	1108	0.001
262308	1109	0.003
262309	1110	0.001
262310	1111	0.001
262311	1112	0.001
262311	1112	0.001 Check
262312	1113	<0.001
262313	1114	<0.001
262314	1115	<0.001
262315	1116	<0.001
262316	1117	<0.001
262317	1118	0.001
262318	1119	<0.001
262319	1120	<0.001
262320	1121	<0.001
262320	1121	<0.001 Check
262321	1122	<0.001
262322	1123	<0.001
262323	1124	0.001
262324	1125	<0.001
262325	1126	<0.001
262326	1127	0.001
262327	1128	<0.001
262328	1129	0.001
262329	1130	0.001
262329	1130	0.001 Check
262330	1131	0.001

Per:

*John V. Ash*



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## Certificate of Analysis

Page: 3

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M5E 1E5

26111

Date: March 8 1988

Work Order #: 181221  
Project :

SAMPLE NUMBERS	Customer	Gold Oz/T
262331	1132	0.003
262332	1133	<0.001
262333	1134	<0.001
262334	1135	<0.001
262335	1136	<0.001
262336	1137	<0.001
262337	1138	0.001
262338	1139	0.001
262339	1139	0.001
262340	1140	<0.001
262341	1141	<0.001
262342	1142	<0.001
262343	1143	<0.001
262344	1144	<0.001
262345	1145	<0.001
262346	1146	<0.001
262347	1147	<0.001
262347	1148	<0.001
262348	1149	0.001
262349	1150	<0.001
262350	1151	<0.001
262351	1152	<0.001
262352	1153	0.001
262353	1154	0.002
262354	1155	<0.001
262355	1156	<0.001
262356	1157	<0.001
262356	1157	0.001
262357	1158	0.001
262358	1159	<0.001

Per: Blaine V. Clark



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## Certificate of Analysis

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Murray Rogers  
Black Cliff Mines Ltd.  
26112 Suite 2205, 1 Yonge Street  
Toronto, Ontario  
M5E 1E5

Date: March 8 1983

Work Order #: 181221  
Project :

SAMPLE NUMBERS	Customer	Gold Oz/T
262359	1160	0.003
262360	1161	0.001
262361	1162	<0.001
262362	1163	<0.001
262363	1164	0.001
262364	1165	<0.001
262364	1165	<0.001 Check

Per: Blairne V. Smith



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## Certificate of Analysis

Page: 1

Murray Rogers  
26113 Black Cliff Mines Ltd.  
Suite 2205, 1 Yonge Street  
Toronto, Ontario  
M5E 1E5

Date: March 9 1989

Work Order #: 101323  
Project: Cryptus Gold

### SAMPLE NUMBERS

Accurassay Customer

Bold

Dz/T

262400	1166	<0.001
262401	1167	<0.001
262402	1168	<0.001
262403	1169	<0.001
262404	1170	<0.001
262405	1171	0.001
262406	1172	<0.001
262407	1173	<0.001
262408	1174	<0.001
262409	1175	<0.001
262409	1175	<0.001 Check
262410	1176	0.001
262411	1177	<0.001
262412	1178	0.001
262413	1179	<0.001
262414	1180	<0.001
262415	1181	<0.001
262416	1182	0.001
262417	1183	<0.001
262418	1184	<0.001 Check
262419	1185	0.001
262420	1186	<0.001
262421	1187	0.001
262422	1188	<0.001
262423	1189	0.001
262424	1190	<0.001
262425	1191	<0.001
262426	1192	<0.001
262427	1193	<0.001
262427	1193	<0.001 Check

Per: Blaine Voth



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## Certificate of Analysis

26114

Murray Rogers  
Black Cliff Mines Ltd.  
Suite 2205, 1 Yonge Street  
Toronto, Ontario  
M5E 1E5

Page: 2

Date: March 9 19 84

Work Order #: 1P1223  
Project #: Cyprus Gold

SAMPLE NUMBERS	Customer	Gold Oz/T
262428	1194	<0.001
262429	1195	<0.001
262430	1196	<0.001
262431	1197	0.001
262432	1198	0.003
262433	1199	<0.001
262434	1200	<0.001
262435	1201	<0.001
262436	1202	<0.001
262436	1202	<0.001 Check
262437	1203	<0.001
262438	1204	<0.001
262439	1205	<0.001
262440	1206	<0.001
262441	1207	<0.001
262442	1208	<0.001
262443	1209	0.001
262444	1210	<0.001
262445	1211	<0.001
262445	1211	<0.001 Check
262446	1212	<0.001
262447	1213	<0.001
262448	1214	0.001
262449	1215	0.001
262450	1216	0.002
262451	1217	<0.001
262452	1218	0.001
262453	1219	<0.001
262454	1220	0.001
262454	1220	<0.001 Check
262455	1221	<0.001

Per: Blanche Vilech

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## Certificate of Analysis

Page: 3

Murray Rogers  
**26115**  
Black Cliff Mines Ltd.  
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Toronto, Ontario  
M5E 1E5

Date: March 9 1989

Work Order #: 191523  
Project #: Cypress Gold

SAMPLE NUMBERS	Customer	Gold	Oz/T
262456	1222	<0.001	
262457	1223	<0.001	
262458	1224	<0.001	
262459	1225	<0.001	
262460	1226	<0.001	
262461	1227	<0.001	
262462	1228	<0.001	
262463	1229	<0.001	
262463	1229	<0.001	Check
262464	1230	<0.001	
262465	1231	0.001	
262466	1232	0.001	
262467	1233	0.001	
262468	1234	<0.001	
262469	1235	0.001	
262470	1236	<0.001	
262471	1237	<0.001	
262472	1238	<0.001	
262472	1238	<0.001	Check
262473	1239	<0.001	
262474	1240	<0.001	
262475	1241	0.001	
262476	1242	<0.001	
262477	1243	0.001	
262478	1244	0.001	
262478	1244	<0.001	Check

Per: R. Lorraine White



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## Certificate of Analysis

Page: 1

Murray Rogers  
**26165**  
Black Cliff Mines Ltd.  
Suite 2205, 1 Yonge Street  
Toronto, Ontario  
M5E 1E5

Date: March 13 1989

Work Order #: 18132P  
Project #: Cyprus Gold

SAMPLE NUMBERS	Customer	Gold	Oz/T
Accurassay			
262772	1245	<0.001	
262773	1246	<0.001	
262774	1247	<0.001	
262775	1248	<0.001	
262776	1249	<0.001	
262777	1250	<0.001	
262778	1251	<0.001	
262779	1252	<0.001	
262780	1253	<0.001	
262781	1254	<0.001	
262781	1254	<0.001	Check
262782	1255	<0.001	
262783	1256	<0.001	
262784	1257	<0.001	
262785	1258	<0.001	
262786	1259	<0.001	
262787	1260	<0.001	
262788	1261	<0.001	
262789	1262	<0.001	
262790	1263	<0.001	
262790	1263	<0.001	Check
262791	1264	<0.001	
262792	1265	<0.001	
262793	1266	<0.001	
262794	1267	0.001	
262795	1268	<0.001	
262796	1269	0.001	
262797	1270	0.002	
262798	1271	<0.001	
262799	1272	<0.001	
262799	1272	<0.001	Check

Per: Brian Vink



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## Certificate of Analysis

Page: 2

Murray Rogers  
**26166**  
Black Cliff Mines Ltd.  
Suite 2205, 1 Yonge Street  
Toronto, Ontario  
M5E 1E5

Date: March 13 1987

Work Order #: 181220  
Project #: Cypress Gold

SAMPLE NUMBERS	Customer	Gold Oz/T
262800	1273	<0.001
262801	1274	<0.001
262802	1275	<0.001
262803	1276	0.001
262804	1277	<0.001
262805	1278	<0.001
262806	1279	<0.001
262807	1280	<0.001
262808	1281	<0.001
262809	1281	<0.001 Check
262810	1282	<0.001
262811	1283	<0.001
262812	1284	<0.001
262813	1285	<0.001
262814	1286	<0.001
262815	1287	0.001
262816	1288	0.001
262817	1289	<0.001
262817	1290	<0.001 Check
262818	1291	<0.001
262819	1292	0.001
262820	1293	0.002
262821	1294	0.001
262822	1295	<0.001
262823	1296	<0.001
262824	1297	0.001
262825	1298	<0.001
262826	1299	<0.001
262826	1299	<0.001 Check
262827	1300	<0.001

Per: Blanche Voth

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Murray Rogers  
26167 Black Cliff Mines Ltd.  
Suite 2205, 1 Yonge Street  
Toronto, Ontario  
M5E 1E5

Date: March 13 19 93

Work Order #: 181228  
Project : Cypress Gold

SAMPLE NUMBERS	Customer	Gold	Oz/T
262828		1301	0.001
262829		1302	<0.001
262830		1303	0.001
262831		1304	<0.001
262832		1305	0.001
262833		1306	<0.001
262834		1307	<0.001
262835		1308	0.001
262835		1308	<0.001 Check
262836		1309	0.001
262837		1310	0.001
262838		1311	<0.001
262839		1311	<0.001 Check

Per: Blairne Ustik

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26184      Murray Rogers  
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M5E 1E5

Date: March 14 1989

Work Order #: 181032  
Project #:

SAMPLE NUMBERS	Customer	Gold	Oz/T
263149	1312	<0.001	
263150	1313	<0.001	
263151	1314	<0.001	
263152	1315	<0.001	
263153	1316	0.001	
263154	1317	<0.001	
263155	1318	0.001	
263156	1319	0.001	
263157	1320	<0.001	
263158	1321	<0.001	
263159	1322	<0.001	
263160	1323	0.001	
263161	1324	<0.001	
263162	1325	<0.001	
263163	1326	0.001	
263164	1327	<0.001	
263165	1328	<0.001	
263166	1329	0.004	
263167	1330	0.001	
263167	1330	0.001	Check
263168	1331	<0.001	
263169	1332	0.001	
263170	1333	0.001	
263171	1334	<0.001	
263172	1335	<0.001	
263173	1336	<0.001	
263174	1337	<0.001	
263175	1338	<0.001	
263176	1339	0.001	
263176	1339	<0.001	Check

Per: Brian Videl



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Murray Rogers  
26185 Black Cliff Mines Ltd.  
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M5E 1E5

Date: March 14 1989

Work Order #: 181222  
Project

SAMPLE NUMBERS	Customer	Gold Oz/T
263177	1340	<0.001
263178	1341	0.001
263179	1342	<0.001
263180	1343	<0.001
263181	1344	0.001
263182	1345	0.002
263183	1346	<0.001
263184	1347	<0.001
263185	1348	<0.001
263185	1348	<0.001 Check
263186	1349	<0.001
263187	1350	<0.001
263188	1351	<0.001
263189	1352	<0.001
263190	1353	<0.001
263191	1354	<0.001
263192	1355	<0.001
263193	1356	<0.001
263194	1357	<0.001
263194	1357	<0.001 Check
263195	1358	<0.001
263196	1359	<0.001
263197	1360	<0.001
263198	1361	<0.001
263199	1362	0.002
263200	1363	<0.001
263201	1364	<0.001
263202	1365	<0.001
263203	1366	<0.001
263203	1366	<0.001 Check
263204	1367	<0.001

Per:

Brian V. J.



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**26186**  
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Date: March 14 1980

Work Order #: 181281,  
Project :

SAMPLE NUMBERS	Customer	Ba1 d Oz/T
263205		1368 <0.001
263206		1369 <0.001
263207		1370 <0.001
263208		1371 <0.001
263209		1372 <0.001
263210		1373 <0.001
263211		1374 <0.001
263212		1375 <0.001
263212		1375 <0.001 Check
263213		1376 <0.001
263214		1377 <0.001
263215		1378 <0.001
263216		1379 <0.001
263217		1380 <0.001
263218		1381 <0.001
263219		1382 <0.001
263220		1383 <0.001
263221		1384 <0.001
263221		1384 <0.001 Check
263222		1385 <0.001
263223		1386 <0.001
263224		1387 <0.001
263225		1388 <0.001
263226		1389 <0.001
263227		1390 <0.001
263228		1391 <0.001
263229		1392 <0.001
263230		1393 <0.001
263230		1393 <0.001 Check
263231		1394 <0.001
263232		1395 0.001

Per:

Blane Vilek



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26187 Black Cliff Mines Ltd.  
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Date: March 14 1989

Work Order #: 181232  
Project :

SAMPLE NUMBERS Accurassay	Customer	Bold Dz/T
263233	1396	0.001
263234	1397	<0.001
263235	1398	0.001
263236	1399	0.001
263237	1400	<0.001
263238	1401	<0.001
263239	1402	<0.001
263239	1402	<0.001 Check
263240	1403	<0.001
263241	1404	0.001
263242	1405	<u>0.019</u>
263243	1406	0.005
263244	1407	<u>0.030</u>
263245	1408	0.003
263246	1409	0.002
263247	1410	0.009
263248	1411	<0.001 Check
263249	1412	<0.001
263250	1413	<0.001
263251	1414	0.002
263252	1415	0.004
263253	1416	0.002
263254	1417	0.002
263255	1418	0.005
263256	1419	0.003
263257	1420	0.004
263257	1420	0.003 Check
263258	1421	<0.001
263259	1422	<0.001
263260	1423	<0.001

Per: Blaine Hatch



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**26188** Black Cliff Mines Ltd.  
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M5E 1E5

Date: March 14 1989

Work Order #: 181232  
Project:

SAMPLE NUMBERS	Gold	
Accurassay	Customer	Oz/T
263261	1424	0.010
263262	1425	0.006
263263	1426	<u>0.027</u>
263264	1427	0.001
263265	1428	0.001
263266	1429	<0.001
263266	1429	<0.001 Check

Per: Blair United



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26225 Black Cliff Mines Ltd.  
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M5E 1E5

Date: March 16 19 89

Work Order #: 181236  
Project #: Cyprus Gold

SAMPLE NUMBERS	Customer	Bold	Oz/T
263368	1430	<0.001	
263369	1431	<0.001	
263370	1432	0.001	
263371	1433	0.001	
263372	1434	0.001	
263373	1435	<0.001	
263374	1436	0.001	
263375	1437	0.001	
263376	1438	<u>0.012</u>	
263377	1439	0.002	
263377	1439	0.002	Check
263378	1440	<0.001	
263379	1441	<0.001	
263380	1442	<0.001	
263381	1443	0.001	
263382	1444	0.007	
263383	1445	0.001	
263384	1446	<0.001	
263385	1447	0.001	
263386	1448	<0.001	
263386	1448	<0.001	Check
263387	1449	0.001	
263388	1450	0.001	
263389	1451	<0.001	
263390	1452	<0.001	
263391	1453	<0.001	
263392	1454	0.001	
263393	1455	<0.001	
263394	1456	<0.001	
263395	1457	<0.001	
263395	1457	<0.001	Check

Per: Sonja Remouchok



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26226 Black Cliff Mines Ltd.  
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Date: March 16 1989

Work Order #: 181236  
Project : Cyprus Gold

SAMPLE NUMBERS	Customer	Gold Oz/T
263396	1458	<0.001
263397	1459	0.001
263398	1460	0.004
263399	1461	0.001
263400	1462	0.004
263401	1463	0.001
263402	1464	<0.001
263403	1465	<0.001
263404	1466	0.001
263404	1466	0.001 Check
263405	1467	<0.001
263406	1468	0.003
263407	1469	Result to be forwarded
263408	1470	0.001
263409	1471	<0.001
263410	1472	<0.001
263411	1473	<0.001
263412	1474	<0.001
263413	1475	<0.001
263413	1475	<0.001 Check
263414	1476	<0.001
263415	1477	<0.001
263416	1478	<0.001
263417	1479	<0.001
263418	1480	<0.001
263419	1481	0.004
263420	1482	0.002
263421	1483	<0.001
263422	1484	<0.001
263422	1484	<0.001 Check
263423	1485	<0.001

Per: Zionja Bernickel

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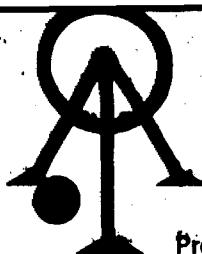
Date: March 16 19 89

Work Order #: 181236  
Project : Cyprus Gold

SAMPLE NUMBERS	Customer	Gold Oz/T
263424	1486	<0.001
263425	1487	<0.001
263426	1488	<0.001
263427	1489	<0.001
263428	1490	<0.001
263429	1491	0.002
263430	1492	<0.001
263431	1493	<0.001
263431	1493	<0.001 Check
263432	1494	<0.001
263433	1495	<0.001
263434	1496	<0.001
263435	1497	<0.001
263436	1498	<0.001
263437	1499	<0.001
263438	1500	<0.001
263439	1501	<0.001
263440	1502	<0.001
263440	1502	<0.001 Check
263441	1503	<0.001
263442	1504	<0.001
263443	1505	<0.001
263444	1506	<0.001
263445	1507	<0.001
263446	1508	<0.001
263447	1509	<0.001
263448	1510	<0.001
263449	1511	<0.001
263449	1511	<0.001 Check
263450	1512	<0.001
263450	1512	<0.001 Check

Per: Sonja Renachek

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26287

Date: March 29 1989

Work Order #: 181299  
Project : Cyprus Gold

SAMPLE NUMBERS	Customer	Gold Oz/T
263590	1513	0.002
263591	1514	0.008
263592	1515	0.001
263593	1516	0.002
263594	1517	<0.001
263595	1518	0.003
263596	1519	<0.001
263597	1520	0.001
263598	1521	<0.001
263599	1522	0.001
263599	1522	0.001 Check
263600	1523	<0.001
263601	1524	0.001
263602	1525	0.001
263603	1526	<0.001
263604	1527	0.001
263605	1528	<0.001
263606	1529	<0.001
263607	1530	0.001
263608	1531	0.001
263608	1531	0.001 Check
263609	1532	0.003
263610	1533	0.001
263611	1534	0.001
263612	1535	<0.001
263613	1536	<0.001
263614	1537	<0.001
263615	1538	<0.001
263616	1539	<0.001
263617	1540	<0.001
263617	1540	0.001 Check

Per: Blaine United



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26288

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Date: March 29 1980

Work Order #: 1B1288  
Project : Cyprus Gold

SAMPLE NUMBERS	Customer	Gold Oz/T
263618	1541	0.001
263619	1542	0.002
263620	1543	0.001
263621	1544	0.001
263622	1545	0.001
263623	1546	0.001
263624	1547	0.001
263625	1548	0.001
263626	1549	0.001
263626	1549	0.001 Check
263627	1550	0.017
263628	1551	0.003
263629	1552	0.006
263630	1553	0.009
263631	1554	0.001
263632	1555	0.001
263633	1556	<0.001
263634	1557	0.003
263635	1558	0.003
263635	1558	0.001 Check
263636	1559	0.001
263637	1560	0.001
263638	1561	0.001
263639	1562	<0.001
263640	1563	<0.001
263641	1564	<0.001
263642	1565	<0.001
263643	1566	<0.001
263644	1567	<0.001
263644	1567	<0.001 Check
263645	1568	0.001

Per: Blair Ventil



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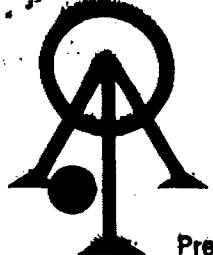
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**26289**  
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Suite 2205, 1 Yonge Street  
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M5E 1E5

Date: March 29 1989

Work Order #: 181239  
Project : Cyprus Gold

SAMPLE NUMBERS	Customer	Gold Oz/T
263646	1569	0.002
263647	1570	0.001
263648	1571	<0.001
263649	1572	<0.001
263650	1573	<0.001
263651	1574	0.008
263652	1575	<0.001
263653	1576	<0.001
263653	1576	<0.001 Check
263654	1577	<0.001
263655	1578	<0.001
263656	1579	0.003
263657	1580	0.002
263658	1581	0.001
263659	1582	<0.001
263660	1583	0.001
263661	1584	<0.001
263662	1585	0.002
263662	1585	<0.001 Check
263663	1586	0.001
263664	1587	<0.001
263665	1588	<0.001
263666	1589	0.008
263667	1590	<0.001
263668	1591	<0.001
263669	1592	<0.001
263670	1593	<0.001
263671	1594	<0.001
263671	1594	<0.001 Check
263672	1595	<0.001
263673	1596	<0.001

Per: Blaine Welch



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26290 Black Cliff Mines Ltd.  
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Date: March 29 19 89

Work Order #: 181039  
Project #: Cyprus Gold

SAMPLE NUMBERS	Customer	Gold Oz/T	
263674	1597	<0.001	
263675	1598	<0.001	
263676	1599	<0.001	
263677	1600	<0.001	
263678	1601	0.001	
263679	1602	<0.001	
263680	1603	Result to be forwarded	
263680	1603	Result to be forwarded	Check
263681	1604	0.001	
263682	1605	0.001	
263683	1606	0.001	
263684	1607	<0.001	
263685	1608	<0.001	
263686	1609	0.003	
263687	1610	0.001	
263688	1611	0.002	
263689	1612	0.010	
263689	1612	0.011	Check
263690	1613	<u>0.245</u>	
263691	1614	0.001	
263692	1615	0.003	
263693	1616	0.002	
263694	1617	0.002	
263695	1618	0.003	
263696	1619	0.001	
263697	1620	<0.001	
263698	1621	<0.001	
263698	1621	0.001	Check
263699	1622	0.001	
263700	1623	0.001	
263701	1624	0.001	

Per: Blaine Voth



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**26291**  
Black Cliff Mines Ltd.  
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M5E 1E5

Date: March 29 1988

Work Order #: 181299  
Project : Cypress Gold

SAMPLE NUMBERS	Customer	Gold Oz/T
263702	1625	0.001
263703	1626	0.002
263704	1627	0.001
263705	1628	0.001
263706	1629	0.001
263707	1630	<0.001
263707	1630	<0.001 Check
263708	1631	<0.001
263709	1632	0.001
263710	1633	<0.001
263711	1634	<0.001
263712	1635	<0.001
263713	1636	<0.001
263714	1637	0.001
263715	1638	0.002
263716	1639	<0.001
263716	1639	<0.001 Check
263717	1640	<0.001
263718	1641	40.001
263719	1642	0.003
263720	1643	0.001
263721	1644	<0.001
263722	1645	0.006
263723	1646	0.001
263724	1647	0.001
263725	1648	0.003
263725	1648	0.002 Check
263726	1649	0.001
263727	1650	0.001
263728	1651	0.003
263729	1652	0.004

Per: Blaine Hatch



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Murray Rogers  
26292 Black Cliff Mines Ltd.  
Suite 2205, 1 Yonge Street  
Toronto, Ontario  
M5E 1E5

Date: March 29 1989

Work Order #: 181229  
Project #: Cyprus Gold

SAMPLE NUMBERS	Customer	Gold	Oz/T
263730		1653	0.001
263731		1654	0.002
263732		1655	0.001
263733		1656	0.001
263734		1657	0.002
263734		1657	0.005 Check
263735		1658	0.001
263736		1659	0.001
263737		1660	<0.001
263738		1661	0.001
263739		1662	<0.001
263740		1663	<0.001
263741		1664	<0.001
263742		1665	<0.001
263743		1666	<0.001
263743		1666	<0.001 Check
263744		1667	<0.001
263745		1668	<0.001
263746		1669	<0.001
263747		1670	<0.001
263748		1671	<0.001
263748		1671	<0.001 Check

Per: Blaine Vatch

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26305      Murray Rogers  
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Toronto, Ontario  
M5E 1E5

Date: March 30 19 89

Work Order #: 181243  
Project :

SAMPLE NUMBERS	Customer	Gold Oz/T
264195		1672      0.001
264196		1673      0.001
264197		1674      <0.001
264198		1675      <0.001
264199		1676      <0.001
264200		1677      0.001
264201		1678      <0.001
264202		1679      <0.001
264203		1680      0.001
264204		1681      0.001
264204		1681      0.001      Check
264205		1682      0.001
264206		1683      0.001
264207		1684      0.001
264208		1685      0.002
264209		1686      0.001
264210		1687      <0.001
264211		1688      <0.001
264212		1689      0.001
264213		1690      0.001
264213		1690      <0.001      Check
264214		1691      <0.001
264215		1692      0.001
264216		1693      <0.001
264217		1694      0.001
264218		1695      <0.001
264219		1696      <0.001
264220		1697      <0.001
264221		1698      0.002
264222		1699      0.001
264222		1699      <0.001      Check

Per: Zorina Berischuk

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**26306** Black Cliff Mines Ltd.  
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Toronto, Ontario  
M5B 1E5

Date: March 30 19 89

Work Order #: 181243  
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold Oz/T
264223	1700	<0.001
264224	1701	0.001
264225	1702	0.002
264226	1703	<0.001
264227	1704	0.001
264228	1705	<0.001
264229	1706	<0.001
264230	1707	0.001
264231	1708	<0.001
264231	1708	<0.001 Check
264232	1709	<0.001
264233	1710	<0.001
264234	1711	<0.001
264235	1712	0.001
264236	1713	<0.001
264237	1714	<0.001
264238	1715	<0.001
264239	1716	<0.001
264240	1717	<0.001
264240	1717	0.001 Check
264241	1718	0.001
264242	1719	0.001
264243	1720	<0.001
264244	1721	<0.001
264245	1722	<0.001
264246	1723	0.001
264247	1724	0.001
264248	1725	<0.001
264249	1726	<0.001
264249	1726	0.001 Check
264250	1727	0.001

Per: Zimra Beninachuk

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**26307** Black Cliff Mines Ltd.  
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M5E 1E5

Date: March 30 19 89

Work Order #: 181243  
Project :

SAMPLE NUMBERS Accurassay	CUSTOMER	Gold Oz/T
264251	1728	<0.001
264252	1729	<0.001
264253	1730	<0.001
264254	1731	<0.001
264255	1732	<0.001
264256	1733	<0.001
264257	1734	<0.001
264258	1735	<0.001
264259	1736	<0.001
264260	1737	<0.001
264261	1738	<0.001
264262	1739	<0.001
264263	1740	<0.001
264264	1741	0.001
264265	1742	<0.001
264266	1743	<0.001
264267	1744	<0.001
264268	1744	<0.001
264269	1745	0.001
264270	1746	0.001
264271	1747	0.001
264272	1748	<0.001
264273	1749	<0.001
264274	1750	<0.001
264275	1751	<0.001
264276	1752	<0.001
264276	1753	<0.001
264277	1753	<0.001
264277	1754	0.002
264278	1755	<0.001

Per: Zorja Bernockuk

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Toronto, Ontario  
M5E 1E5

Date: March 31 1989

Work Order #: 1B1244  
Project #: Cyprus Gold

SAMPLE NUMBERS	Customer	Gold	Oz/T
264279	1756	0.001	
264280	1757	0.001	
264281	1758	<0.001	
264282	1759	<0.001	
264283	1760	<0.001	
264284	1761	<0.001	
264285	1762	0.001	
264286	1763	<0.001	
264287	1764	0.008	
264288	1765	<0.001	
264288	1765	<0.001	Check
264289	1766	<0.001	
264290	1767	<0.001	
264291	1768	<0.001	
264292	1769	<0.001	
264293	1770	<0.001	
264294	1771	<0.001	
264295	1772	<0.001	
264296	1773	<0.001	
264297	1774	<0.001	
264297	1774	0.001	Check
264298	1775	<0.001	
264299	1776	0.001	
264300	1777	<0.001	
264301	1778	<0.001	
264302	1779	<0.001	
264303	1780	<0.001	
264304	1781	<0.001	
264305	1782	0.001	
264306	1783	0.001	
264306	1783	0.001	Check

Per: Lorraine Gerwick



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Murray Rogers  
26313 Black Cliff Mines Ltd.  
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Toronto, Ontario  
M5E 1E5

Date: March 31 1989

Work Order #: 181244  
Project : Cyprus Gold

SAMPLE NUMBERS	Customer	Gold	Oz/T
264307	1784	<0.001	
264308	1785	<0.001	
264309	1786	<0.001	
264310	1787	<0.001	
264311	1788	<0.001	
264312	1789	0.003	
264313	1790	0.002	
264314	1791	0.001	
264315	1792	0.002	Check
264316	1793	<0.001	
264317	1794	0.001	
264318	1795	<0.001	
264319	1796	<0.001	
264320	1797	<0.001	
264321	1798	<0.001	
264322	1799	<0.001	
264323	1800	<0.001	
264324	1801	<0.001	
264324	1801	<0.001	Check
264325	1802	<0.001	
264326	1803	<0.001	
264327	1804	<0.001	
264328	1805	<0.001	
264329	1806	<0.001	
264330	1807	<0.001	
264331	1808	<0.001	
264332	1809	<0.001	
264333	1810	0.001	
264333	1810	0.001	Check
264334	1811	<0.001	

Per: Lorraine Remondos



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26314      Murray Rogers  
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M5E 1E5

Date: March 31 1983

Work Order #: 181244  
Project : Cyprus Gold

SAMPLE NUMBERS	Customer	Gold Oz/T	
264335	1812	<0.001	
264336	1813	0.001	
264337	1814	<0.001	
264338	1815	0.002	
264339	1816	<0.001	
264340	1817	0.003	
264341	1818	<0.001	
264342	1819	<0.001	
264342	1819	<0.001	Check
264343	1820	<0.001	
264344	1821	<0.001	
264345	1822	<0.001	
264346	1823	<0.001	
264347	1824	<0.001	
264348	1825	<0.001	
264349	1826	<0.001	
264350	1827	0.001	
264351	1828	<0.001	
264351	1828	<0.001	Check
264352	1829	<0.001	
264353	1830	<0.001	
264354	1831	<0.001	
264355	1832	<0.001	
264355	1832	<0.001	Check



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**26326** Black Cliff Mines Ltd.  
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M5E 1E5

Date: April 4 19 83

Work Order #: 181217  
Project : Cyprus Gold

SAMPLE NUMBERS	Customer	Gold	Oz/T
264773		1833	0.001
264774		1834	<0.001
264775		1835	<0.001
264776		1836	0.001
264777		1837	0.001
264778		1838	0.001
264779		1839	<0.001
264780		1840	0.001
264781		1841	0.002
264782		1842	0.005
264782		1842	0.010 Check
264783		1843	0.001
264784		1844	<0.001
264785		1845	0.001
264786		1846	<0.001
264787		1847	<0.001
264788		1848	0.001
264789		1849	0.001
264790		1850	<0.001
264791		1851	<0.001
264791		1851	0.001 Check
264792		1852	0.001
264793		1853	<0.001
264794		1854	<0.001
264795		1855	<0.001
264796		1856	<0.001
264797		1857	<0.001
264798		1858	<0.001
264799		1859	<0.001
264800		1860	<0.001
264800		1860	<0.001 Check

Per: Murray Rogers

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M5E 1E5

Date: April 4 19 89

Work Order #: 181247  
Project : Cyprus Gold

SAMPLE NUMBERS Accurassay	Customer	Gold Oz/T
264801	1861	<0.001
264802	1862	<0.001
264803	1863	0.001
264804	1864	<0.001
264805	1865	<0.001
264806	1866	<0.001
264807	1867	<0.001
264808	1868	0.001
264809	1869	<0.001
264809	1869	<0.001 Check
264810	1870	<0.001
264811	1871	<0.001
264812	1872	<0.001
264813	1873	<0.001
264814	1874	<0.001
264815	1875	<0.001
264816	1876	<0.001
264817	1877	<0.001
264818	1878	<0.001
264818	1878	<0.001 Check
264819	1879	<0.001
264820	1880	<0.001
264821	1881	<0.001
264822	1882	<0.001
264823	1883	<0.001
264824	1884	<0.001
264825	1885	<0.001
264826	1886	<0.001
264827	1887	0.001
264827	1887	<0.001 Check
264828	1888	<0.001

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Date: April 4 19 89

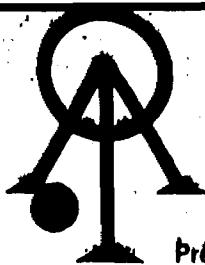
Work Order #: 181247  
Project : Cyprus Gold

SAMPLE NUMBERS	Customer	Gold Oz/T
264829	1889	<0.001
264830	1890	<0.001
264831	1891	<0.001
264832	1892	0.002
264833	1893	<0.001
264834	1894	<0.001
264835	1895	0.001
264836	1896	0.001
264836	1896	0.001 Check
264837	1897	0.001
264838	1898	0.001
264839	1899	<0.001
264840	1900	<0.001
264841	1901	<0.001
264842	1902	0.001
264843	1903	0.001
264844	1904	<0.001
264845	1905	<0.001
264845	1905	0.001 Check
264846	1906	0.004
264847	1907	0.002
264848	1908	0.006
264849	1909	<0.001
264850	1910	0.001
264851	1911	0.001
264852	1912	<0.001
264853	1913	0.002
264854	1914	0.001
264854	1914	0.001 Check
264855	1915	<0.001
264856	1916	0.003

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Date: April 4 19 89

Work Order #: 181247  
Project : Cyprus Gold

SAMPLE NUMBERS Accurassay	CUSTOMER	Gold Oz/T
264857	1917	0.001
264858	1918	<0.001
264859	1919	0.001
264860	1920	0.002
264861	1921	<0.001
264862	1922	0.001
264863	1923	0.001
264863	1923	0.001 Check
264864	1924	0.001
264865	1925	<0.001
264865	1925	<0.001 Check



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26358 Black Cliff Mines Ltd.  
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M5E 1E5

Date: April 7 1989

Work Order #: 181249  
Project : Cyprus Gold

SAMPLE NUMBERS Accurassay	Customer	Gold Oz/T
265088	501	0.001
265089	502	0.001
265090	503	0.006
265091	504	0.001
265092	505	0.002
265093	506	<0.001
265094	507	<0.001
265095	508	<0.001
265096	509	<0.001
265097	510	<0.001
265097	510	<0.001 Check
265098	511	<0.001
265099	512	<0.001
265100	513	<0.001
265101	514	<0.001
265102	515	<0.001
265103	516	<0.001
265104	517	<0.001
265105	518	0.001
265106	519	<0.001
265106	519	<0.001 Check
265107	520	<0.001
265108	521	0.001
265109	522	0.001
265110	523	0.001
265111	524	0.001
265112	525	<0.001
265113	1926	<0.001
265114	1927	<0.001
265115	1928	<0.001
265115	1928	0.001 Check

Per: George Duncan

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Page: 2

Date: April 7 1989

Work Order #: 181249  
Project : Cyprus Gold

SAMPLE NUMBERS	Customer	Gold Oz/T
265116	1929	<0.001
265117	1930	<0.001
265118	1931	<0.001
265119	1932	<0.001
265120	1933	0.001
265121	1934	0.002
265122	1935	0.002
265123	1936	0.001
265124	1937	0.001
265124	1937	0.001 Check
265125	1938	<0.001
265126	1939	<0.001
265127	1940	<0.001
265128	1941	<0.001
265129	1942	<0.001
265130	1943	<0.001
265131	1944	0.001
265132	1945	0.001
265133	1946	<0.001
265133	1946	0.001 Check
265134	1947	0.001
265135	1948	0.001
265136	1949	0.001
265137	1950	<0.001
265138	1951	0.001
265139	1952	<0.001
265140	1953	0.001
265141	1954	<0.001
265142	1955	0.001
265142	1955	0.001 Check
265143	1956	0.001

Per: Zonya Remouchet

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26360 Black Cliff Mines Ltd.  
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Date: April 7 19 89

Work Order #: 181249  
Project : Cyprus Gold

SAMPLE NUMBERS	Customer	Gold	Oz/T
265144		1957	0.001
265145		1958	0.001
265146		1959	<0.001
265147		1960	<0.001
265148		1961	0.001
265149		1962	<0.001
265150		1963	<0.001
265151		1964	<0.001
265151		1964	<0.001 Check
265152		1965	<0.001
265153		1966	0.001
265154		1967	<0.001
265155		1968	0.001
265156		1969	<0.001
265157		1970	<0.001
265158		1971	<0.001
265159		1972	<0.001
265160		1973	<0.001
265160		1973	0.001 Check
265161		1974	<0.001
265162		1975	0.001
265163		1976	<0.001
265164		1977	<0.001
265165		1978	<0.001
265166		1979	0.001
265167		1980	<0.001
265168		1981	<0.001
265169		1982	<0.001
265169		1982	<0.001 Check
265170		1983	<0.001
265171		1984	<0.001

Per: Lorraine Bevacqua

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MSE 1E5

Date: April 7 19 09

Work Order #: 181249  
Project : Cyprus Gold

SAMPLE NUMBERS	Customer	Gold Oz/T
265172	1985	<0.001
265173	1986	<0.001
265174	1987	<0.001
265175	1988	0.001
265176	1989	0.001
265177	1990	0.001
265178	1991	<0.001
265178	1991	<0.001 Check
265179	1992	<0.001
265180	1993	<0.001
265181	1994	<0.001
265182	1995	<0.001
265183	1996	0.001
265184	1997	<0.001
265185	1998	0.001
265186	1999	0.001
265187	2000	<0.001
265187	2000	<0.001 Check

Per: Zenja Benachek

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Date: April 7 1989

Work Order #: 181250  
Project : cyprus Gold

SAMPLE NUMBERS	Customer	Gold Oz/T
265199	526	0.002
265200	527	0.001
265201	528	<0.001
265202	529	<0.001
265203	530	<0.001
265204	531	<0.001
265205	532	<0.001
265206	533	<0.001
265207	534	0.001
265208	535	0.001
265208	535	0.001 Check
265209	536	0.001
265210	537	0.001
265211	538	0.001
265212	539	<0.001
265213	540	0.002
265214	541	<0.001
265215	542	0.001
265216	543	0.001
265217	544	<0.001
265217	544	0.002 Check
265218	545	0.001
265219	546	0.001
265220	547	0.002
265221	548	0.001
265222	549	0.001
265223	550	<0.001
265224	551	0.001
265225	552	0.001
265226	553	0.001
265226	553	0.001 Check

Per: Lorraine Bernackik

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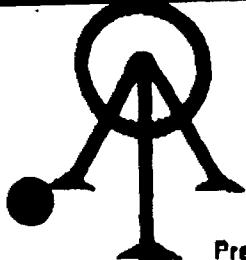
Date: April 7 1989

Work Order #: 181250  
Project: cyprus Gold

SAMPLE NUMBERS	Customer	Gold Oz/T
265227		554 0.001
265228		555 0.003
265229		556 0.001
265230		557 0.001
265231		558 <0.001
265232		559 <0.001
265233		560 0.003
265234		561 0.001
265235		562 0.001 Check
265236		563 0.002
265237		564 0.001
265238		565 0.002
265239		566 0.001
265240		567 <0.001
265241		568 0.001
265242		569 <0.001
265243		570 <0.001
265244		571 0.001
265244		571 <0.001 Check
265245		572 <0.001
265246		573 <0.001
265247		574 0.003
265248		575 <0.001
265248		575 <0.001 Check

Per: Sonya Rennochuk

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Page: 1

Date: April 10 19 89

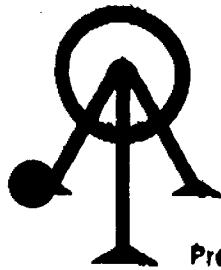
Work Order #: 181252  
Project : Cyprus Gold

SAMPLE NUMBERS	Customer	Gold Oz/T
265430		576 <0.001
265431		577 0.001
265432		578 <0.001
265433		579 <0.001
265434		580 <0.001
265435		581 <0.001
265436		582 <0.001
265437		583 <0.001
265438		584 <0.001
265439		585 0.001
265439		585 <0.001 Check
265440		586 <0.001
265441		587 <0.001
265442		588 <0.001
265443		589 <0.001
265444		590 <0.001
265445		591 <0.001
265446		592 <0.001
265447		593 0.001
265448		594 <0.001
265448		594 <0.001 Check
265449		595 <0.001
265450		596 <0.001
265451		597 <0.001
265452		598 <0.001
265453		599 0.001
265454		600 <0.001
265455		601 0.001
265456		602 0.001
265457		603 <0.001
265457		603 <0.001 Check

LP-30

Per: Sonja Benochek

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Date: April 10 1989

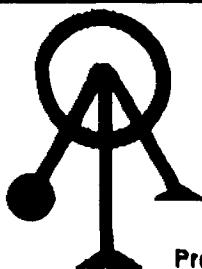
Work Order #: 181252  
Project : Cyprus Gold

SAMPLE NUMBERS	Customer	Gold Oz/T
265458		604 0.001
265459		605 0.001
265460		606 0.013
265461		607 0.003
265462		608 0.002
265463		609 0.001
265464		610 0.001
265465		611 0.002
265466		612 0.009
265466		612 0.012 Check
265467		613 0.002
265468		614 0.002
265469		615 <0.001
265470		616 <0.001
265471		617 <0.001
265472		618 <0.001
265473		619 <0.001
265474		620 <0.001
265475		621 <0.001
265475		621 <0.001 Check
265476		622 <0.001
265477		623 0.001
265478		624 0.001
265479		625 <0.001
265480		626 <0.001
265481		627 0.001
265482		628 <0.001
265483		629 0.001
265484		630 <0.001
265484		630 <0.001 Check
265485		631 <0.001

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Per: Bonja Benischek

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Date: April 10 1989

Work Order #: 181252  
Project : Cyprus Gold

SAMPLE NUMBERS	Customer	Gold Oz/T
265486		632 <0.001
265487		633 0.001
265488		634 <0.001
265489		635 <0.001
265490		636 <0.001
265491		637 0.002
265492		638 <0.001
265493		639 <0.001
265493		639 <0.001 Check
265494		640 <0.001
265495		641 <0.001
265496		642 <0.001
265497		643 <0.001
265498		644 0.001
265499		645 <0.001
265500		646 0.001
265501		647 0.001
265502		648 <0.001
265502		648 <0.001 Check
265503		649 0.001
265504		650 0.001
265505		651 <0.001
265506		652 0.001
265506		652 0.001 Check



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**26383**  
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Date: April 13 1989

Work Order #: 181254  
Project: + Cyprus Gold

SAMPLE NUMBERS	Gold	Oz/T
265725	653	0.029
265726	654	0.011
265727	655	0.003
265728	656	0.003
265729	657	0.007
265730	658	0.002
265731	659	<0.001
265732	660	<0.001
265733	661	<0.001
265734	662	0.001
265734	662	0.001 Check
265735	663	0.001
265736	664	0.001
265737	665	0.001
265738	666	0.007
265739	667	0.010
265740	668	0.001
265741	669	0.007
265742	670	0.001
265743	671	0.001
265743	671	0.001 Check
265744	672	0.002
265745	673	0.003
265746	674	0.001
265747	675	0.001
265748	676	0.001
265749	677	<0.001
265750	678	<0.001
265751	679	<0.001
265752	680	0.001
265752	680	0.001 Check



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Date: April 13 1989

Work Order #: 181254  
Project : Cyprus Gold

SAMPLE NUMBERS	Customer	Gold	Oz/T
265753	681	<0.001	
265754	682	0.001	
265755	683	<0.001	
265756	684	<0.001	
265757	685	0.002	
265758	686	0.001	
265759	687	0.001	
265760	688	0.001	
265761	689	<0.001	
265761	689	0.001	Check
265762	690	0.001	
265763	691	<0.001	
265764	692	0.001	
265765	693	0.002	
265766	694	0.003	
265767	695	0.001	
265768	696	0.001	
265769	697	0.001	
265770	698	0.002	
265770	698	0.004	Check
265771	699	0.001	
265772	700	0.001	
265773	701	<0.001	
265774	702	<0.001	
265775	703	<0.001	
265776	704	<0.001	
265777	705	<0.001	
265778	706	<0.001	
265779	707	<0.001	
265779	707	<0.001	Check
265780	708	<0.001	

Per: Lorraine Benincasa



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Date: April 13 1989

Work Order #: 181254  
Project : Cyprus Gold

SAMPLE NUMBERS	Customer	Bold	Oz/T
265781	709	<0.001	
265782	710	<0.001	
265783	711	0.002	
265784	712	<0.001	
265785	713	<0.001	
265786	714	0.001	
265787	715	0.001	
265788	716	<0.001	
265788	716	<0.001	Check
265789	717	<0.001	
265790	718	<0.001	
265791	719	<0.001	
265792	720	<0.001	
265793	721	<0.001	
265794	722	<0.001	
265795	723	<0.001	
265796	724	<0.001	
265797	725	<0.001	
265797	725	<0.001	Check
265798	726	0.001	
265799	727	<0.001	
265800	728	0.001	
265801	729	<0.001	
265802	730	0.001	
265803	731	<0.001	
265804	732	<0.001	
265805	733	0.001	
265806	734	<0.001	
265806	734	0.001	
265807	735	<0.001	
265808	736	0.001	

Per: Erin Bernartek



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Date: April 13 19 89

Work Order #: LR1254  
Project : Cyprus Gold

SAMPLE NUMBERS	Customer	Gold	Oz/T
265809		737	<0.001
265810		738	<0.001
265811		739	0.001
265812		740	0.001
265813		741	<0.001
265814		742	<0.001
265815		743	<0.001
265815		743	<0.001 Check
265816		744	<0.001
265817		745	<0.001
265818		746	<0.001
265819		747	<0.001
265820		748	<0.001
265821		749	0.001
265822		750	0.001
265823		751	<0.001
265824		752	0.001
265824		752	0.002 Check
265825		753	0.001
265826		754	0.001
265827		755	<0.001
265828		756	0.003
265829		757	0.001
265830		758	0.001
265831		759	<0.001
265832		760	<0.001
265833		761	0.001
265833		761	<0.001 Check
265834		762	0.001
265835		763	<0.001
265836		764	0.001

Per: George Renickel

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Date: April 13 1989

Work Order #: 181254  
Project : Cyprus Gold

SAMPLE NUMBERS	Customer	Gold	Oz/T
265837	765	<0.001	
265838	766	<0.001	
265839	767	<0.001	
265840	768	<0.001	
265841	769	<0.001	
265842	770	<0.001	
265842	770	<0.001	Check
265843	771	<0.001	
265844	772	<0.001	
265845	773	<0.001	
265846	774	<0.001	
265847	775	<0.001	
265848	776	0.001	
265849	777	<0.001	
265850	778	<0.001	
265851	779	<0.001	
265851	779	0.001	Check
265852	780	<0.001	
265853	781	0.001	
265854	782	<0.001	
265855	783	0.001	
265856	784	<0.001	
265857	785	<0.001	
265858	786	<0.001	
265859	787	<0.001	
265860	788	<0.001	
265860	788	<0.001	Check
265861	789	<0.001	
265862	790	<0.001	
265863	791	<0.001	
265864	792	<0.001	

Per: Ronja Benoit-Lek



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Date: April 13 1989

Work Order #: 181251  
Project : Cyprus Gold

SAMPLE NUMBERS	Customer	Gold Oz/T	
265865	793	<0.001	
265866	794	<0.001	
265867	795	<0.001	
265868	796	<0.001	
265869	797	<0.001	
265869	797	<0.001	Check
265870	798	<0.001	
265871	799	<0.001	
265872	800	<0.001	
265873	801	<0.001	
265874	802	<0.001	
265875	803	0.001	
265876	804	<0.001	
265877	805	<0.001	
265877	805	<0.001	Check



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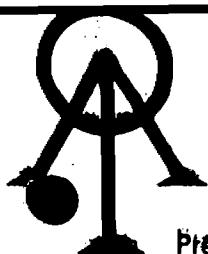
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Date: April 14 1989

Work Order #: 181256  
Project : Cyprus Gold

SAMPLE NUMBERS	Customer	Gold	Dz/T
266078		806	<0.001
266079		807	<0.001
266080		808	<0.001
266081		809	<0.001
266082		810	<0.001
266083		811	<0.001
266084		812	<0.001
266085		813	<0.001
266086		814	<0.001
266087		815	<0.001
266087		815	<0.001 Check
266088		816	<0.001
266089		817	<0.001
266090		818	<0.001
266091		819	<0.001
266092		820	<0.001
266093		821	<0.001
266094		822	0.001
266095		823	0.001
266096		824	<0.001
266096		824	<0.001 Check
266097		825	<0.001
266098		826	<0.001
266099		827	<0.001
266100		828	<0.001
266101		829	<0.001
266102		830	0.001
266103		831	<0.001
266104		832	0.002
266105		833	0.001
266105		833	0.001 Check

Per: Ronja Bernickel



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Date: April 14 19\_\_

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Work Order #: 181256  
Project : Cypress Gold

SAMPLE NUMBERS	Customer	Gold Oz/T
266106	1	834 <0.001
266107		835 <0.001
266108		836 <0.001
266109		837 <0.001
266110		838 <0.001
266111		839 <0.001
266112		840 <0.001
266113		841 <0.001
266113		841 <0.001 Check

Per: Zorja Benoostik

CUSTOMER COPY



# ACCURASSAY LABORATORIES LTD.

P.O. BOX 804  
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5  
TEL.: (705) 587-8343

President: Dr. GEORGE DUNCAN, M.Sc., Ph.D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

## Certificate of Analysis

Page: 1

26403

Murray Rogers  
Black Cliff Mines Ltd.  
Suite 2205, 1 Yonge Street  
Toronto, Ontario  
M5E 1E5

Date: April 18 1989

Work Order #: 181258  
Project : Cyprus Gold

SAMPLE NUMBERS	Customer	Gold Oz/T
266412	842	<0.001
266413	843	<0.001
266414	844	<0.001
266415	845	0.002
266416	846	<0.001
266417	847	0.001
266418	848	<0.001
266419	849	<0.001
266420	850	<0.001
266421	851	<0.001
266421	851	<0.001 Check
266422	852	<0.001
266423	853	<0.001
266424	854	<0.001
266425	855	<0.001
266426	856	<0.001
266427	857	<0.001
266428	858	<0.001
266429	859	<0.001
266430	860	<0.001
266430	860	<0.001 Check
266431	861	<0.001
266432	862	<0.001
266433	863	<0.001
266434	864	<0.001
266435	865	<0.001
266436	866	0.001
266436	866	<0.001 Check

Per: Zomya Cormontek

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# ACCURASSAY LABORATORIES LTD.

P.O. BOX 604  
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5  
TEL.: (705) 587-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph.D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

## Certificate of Analysis

Page: 1

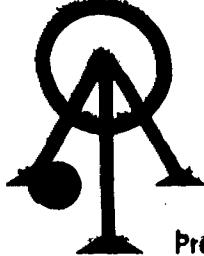
26255      Murray Rogers  
Black Cliff Mines Ltd.  
Suite 2205, 1 Yonge Street  
Toronto, Ontario  
M5E 1E5

Date: March 21 1989

REASSAY ON REJECT  
Work Order # : 181236  
Project : Cyprus Gold

SAMPLE NUMBERS		Original Assay Oz/T	Reassay Result Oz/T
Accurassay 263589	Customer 1468	0.003	0.008

Per: Blair Hatch



# ACCURASSAY LABORATORIES LTD.

P.O. BOX 604  
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5  
TEL.: (705) 587-8343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

## Certificate of Analysis

Page: 1

26228 Murray Rogers  
Black Cliff Mines Ltd.  
Suite 2205, 1 Yonge Street  
Toronto, Ontario  
M5E 1E5

Date: March 17 1979

REASSAY ON PULP  
Work Order #: 181236  
Project : Cyprus Gold

SAMPLE NUMBERS		Original Assay Oz/T	Reassay Result Oz/T
Accurassay 263407	Customer 1469	**	<u>0.205</u>

\*\*result to be forwarded



# ACCURASSAY LABORATORIES LTD.

P.O. BOX 604  
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5  
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

## Certificate of Analysis

Page: 1

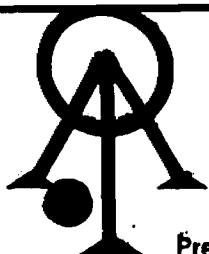
26229 Murray Rogers  
Black Cliff Mines Ltd.  
Suite 2205, 1 Yonge Street  
Toronto, Ontario  
M5E 1E5

Date: March 17 1989

REASSAY ON REJECT  
Work Order #: 181226  
Project : Cyprus Gold

SAMPLE NUMBERS		Original Assay Oz/T	Reassay Result Oz/T
Accurassay 263484	Customer 1469	**	0.179

\*\*result to be forwarded



# ACCURASSAY LABORATORIES LTD.

P.O. BOX 604  
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5  
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

## Certificate of Analysis

Page: 1

Murray Rogers  
**26299**  
Black Cliff Mines Ltd.  
Suite 2205, 1 Yonge Street  
Toronto, Ontario  
M5E 1E5

Date: March 30 1989

REASSAY ON REJECT  
Work Order #: 181239  
Project : Cyprus Gold

Customer #	Original Assay Oz/T 0.245	Reassay Result Oz/T 0.173
1613		



# ACCURASSAY LABORATORIES LTD.

P.O. BOX 604  
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5  
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

## Certificate of Analysis

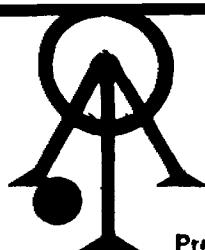
Page: 4

Murray Rogers  
**26308** Black Cliff Mines Ltd.  
Suite 2205, 1 Yonge Street  
Toronto, Ontario  
M5E 1E5

Date: March 30 1989

Work Order #: 181243  
Project :

SAMPLE NUMBERS	Gold
Accurassay	Customer Oz/T
264278	1755 <0.001 Check



# ACCURASSAY LABORATORIES LTD.

P.O. BOX 604  
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J5  
TEL.: (705) 567-6343

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

## Certificate of Analysis

Page: 1

26338

Murray Rogers  
Black Cliff Mines Ltd.  
Suite 2205, 1 Yonge Street  
Toronto, Ontario  
M5E 1E5

Date: April 17 1989

RECEIVED APR 25 1989

TESTS: OIL ANALYSIS  
Work Order #: 181254  
Project : Cyprus Gold

SAMPLE NUMBERS	
Accurassay	Customer
264162	653

Orignal	Conc.
Analy	Result
0.7%	0.7%
0.029	0.026



AFRO

Name and Postal Address of Recorded Holder

Black Cliff Mines Ltd., Suite

1 Yonge Street, Toronto, Ontario. M5E 1E5



52L16NE0020 16 KILLALA

900

Summary of Work Performance and Distribution of Credits

Total Work Days Cr. claimed	Mining Claim		Work Days Cr.	Mining Claim		Work Days Cr.	Mining Claim		Work Days Cr.
	Prefix	Number		Prefix	Number		Prefix	Number	
10,143	KRL	903703	163	KRL	903711	178	KRL	903719	203
for Performance of the following work. (Check one only)		903704	183		903712	183		903720	206
<input type="checkbox"/> Manual Work		903705	183		903713	196		976955	171
<input type="checkbox"/> Shaft Sinking Drifting or other Lateral Work.		903706	183		903714	162		976956	161
<input type="checkbox"/> Compressed Air, other Power driven or mechanical equip.		903707	188		903715	196		976957	161
<input type="checkbox"/> Power Stripping		903708	183		903716	182		976958	181
<input checked="" type="checkbox"/> Diamond or other Core drilling		903709	193		903717	196		976963	181
<input type="checkbox"/> Land Survey		903710	163		903718	162		976964	161

All the work was performed on Mining Claim(s): 903703, 903705, 903706, 903709, 903711, 903712, 903714, 903718, 976964, 976955.

Required Information eg: type of equipment, Names, Addresses, etc. (See Table Below)

Refer to drill program report for information. Program operator:

Cypress Gold (Canada) Ltd.

1810 - 1055 West Hastings Street

Vancouver, B.C.

V6E 2E9

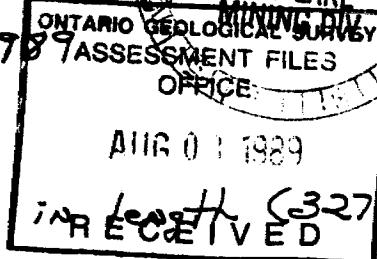
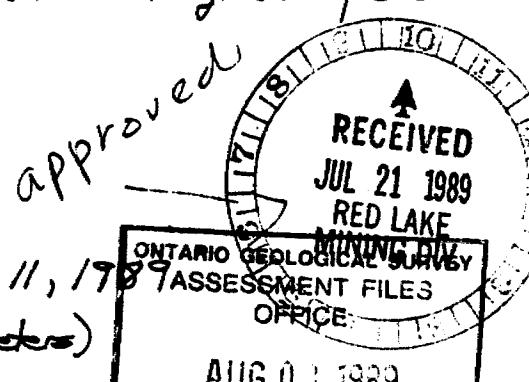
Drilling dates: February 22 to April 11, 1989

Total footage: 10,143 feet (3091.6 meters)

BQ core (1 1/8 inch)

17 holes ranging from 99.7 m. to 264.2 m. to 866.8 ft.)

Dips varied from -45° to -50°.



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## Mining Act

## Name and Postal Address of Recorded Holder

Black Cliff Mines Ltd., Suite 2205,

Prospector's Licence No.  
T-4836

1 Yonge Street, Toronto, Ontario, M5E 1E5

## Summary of Work Performance and Distribution of Credits

Total Work Days Cr. claimed	Mining Claim		Work Days Cr.	Mining Claim		Work Days Cr.	Mining Claim		Work Days Cr.
	Prefix	Number		Prefix	Number		Prefix	Number	
for Performance of the following work. (Check one only)									
<input type="checkbox"/> Manual Work	KRL	976973	195	KRL	976993	215			
<input type="checkbox"/> Shaft Sinking Drifting or other Lateral Work.		976974	205		976994	215			
<input type="checkbox"/> Compressed Air, other Power driven or mechanical equip.		976979	205		976999	215			
<input type="checkbox"/> Power Stripping		976980	210		977000	215			
<input checked="" type="checkbox"/> Diamond or other Core drilling		976985	195		977001	215			
<input type="checkbox"/> Land Survey		976986	195		977002	215			
		976991	195						
		976992	210						

All the work was performed on Mining Claim(s): Refer to first page.

Required Information eg: type of equipment, Names, Addresses, etc. (See Table Below)

Refer to first page.



Date of Report      Recorded Holder or Agent (Signature)

July 17, 1989      Murray C. Rogers

## Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

## Name and Postal Address of Person Certifying

Murray C. Rogers 203, 90 James Street, Etobicoke,  
Ontario, M8W 1L6Date Certified      Certified by (Signature)  
July 17, 1989      Murray C. Rogers

## Table of Information/Attachments Required by the Mining Recorder

Type of Work	Specific information per type	Other information (Common to 2 or more types)	Attachments
Manual Work	Nil	Names and addresses of men who performed manual work/operated equipment, together with dates and hours of employment.	Work Sketch: these are required to show the location and extent of work in relation to the nearest claim post.
Shaft Sinking, Drifting or other Lateral Work	Nil	Names and addresses of owner or operator together with dates when drilling/stripping done.	Work Sketch (as above) in duplicate
Compressed air, other power driven or mechanical equip.	Type of equipment	Names and addresses of owner or operator together with dates when drilling/stripping done.	Work Sketch (as above) in duplicate
Power Stripping	Type of equipment and amount expended. Note: Proof of actual cost must be submitted within 30 days of recording.	Names and addresses of owner or operator together with dates when drilling/stripping done.	Work Sketch (as above) in duplicate
Diamond or other core drilling	Signed core log showing; footage, diameter of core, number and angles of holes.	Nil	Nil
Land Survey	Name and address of Ontario Land Surveyor.	Nil	Nil

Northern Development  
and MinesReport  
of WorkDOCUMENT NO.  
W 8902-102

- type of work to be recorded (see table below).  
 - For Geo-technical work use form no. 1362 "Report of Work (Geological, Geophysical, Geochemical and Expenditures)".

Mining Act

## Name and Postal Address of Recorded Holder

Black Cliff Mines Ltd., Suite 2205,

Prospector's Licence No.  
T-4836

1 Yonge Street, Toronto, Ontario M5E 1E5

## Summary of Work Performance and Distribution of Credits

Total Work Days Cr. claimed	Mining Claim		Mining Claim	Work Days Cr.	Mining Claim		Work Days Cr.
	Prefix	Number			Prefix	Number	
for Performance of the following work. (Check one only)	KRL	1057167	242	KRL	1057175	242	
<input type="checkbox"/> Manual Work		1057168	242		1057176	242	
<input type="checkbox"/> Shaft Sinking Drifting or other Lateral Work.		1057169	242		1057177	242	
<input type="checkbox"/> Compressed Air, other Power driven or mechanical equip.		1057170	242		1057178	242	
<input type="checkbox"/> Power Stripping		1057171	242				
<input checked="" type="checkbox"/> Diamond or other Core drilling		1057172	242				
<input type="checkbox"/> Land Survey		1057173	242				
		1057174	242				

All the work was performed on Mining Claim(s): Refer to first page

Required Information eg: type of equipment, Names, Addresses, etc. (See Table Below)

Refer to first page.



Date of Report      Recorded Holder or Agent (Signature)

July 17, 1989      Murray C. Rogers

## Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

## Name and Postal Address of Person Certifying

Murray C. Rogers 203, 90 James Street, Etobicoke,  
Ontario M8W 1L6

Date Certified      Certified by (Signature)

July 17, 1989      Murray C. Rogers

## Table of Information/Attachments Required by the Mining Recorder

Type of Work	Specific information per type	Other information (Common to 2 or more types)	Attachments
Manual Work	Nil	Names and addresses of men who performed manual work/operated equipment, together with dates and hours of employment.	Work Sketch: these are required to show the location and extent of work in relation to the nearest claim post.
Shaft Sinking, Drifting or other Lateral Work	Nil		
Compressed air, other power driven or mechanical equip.	Type of equipment		
Power Stripping	Type of equipment and amount expended. Note: Proof of actual cost must be submitted within 30 days of recording.	Names and addresses of owner or operator together with dates when drilling/stripping done.	
Diamond or other core drilling	Signed core log showing; footage, diameter of core, number and angles of holes.		Work Sketch (as above) in duplicate
Land Survey	Name and address of Ontario Land Surveyor.	Nil	Nil

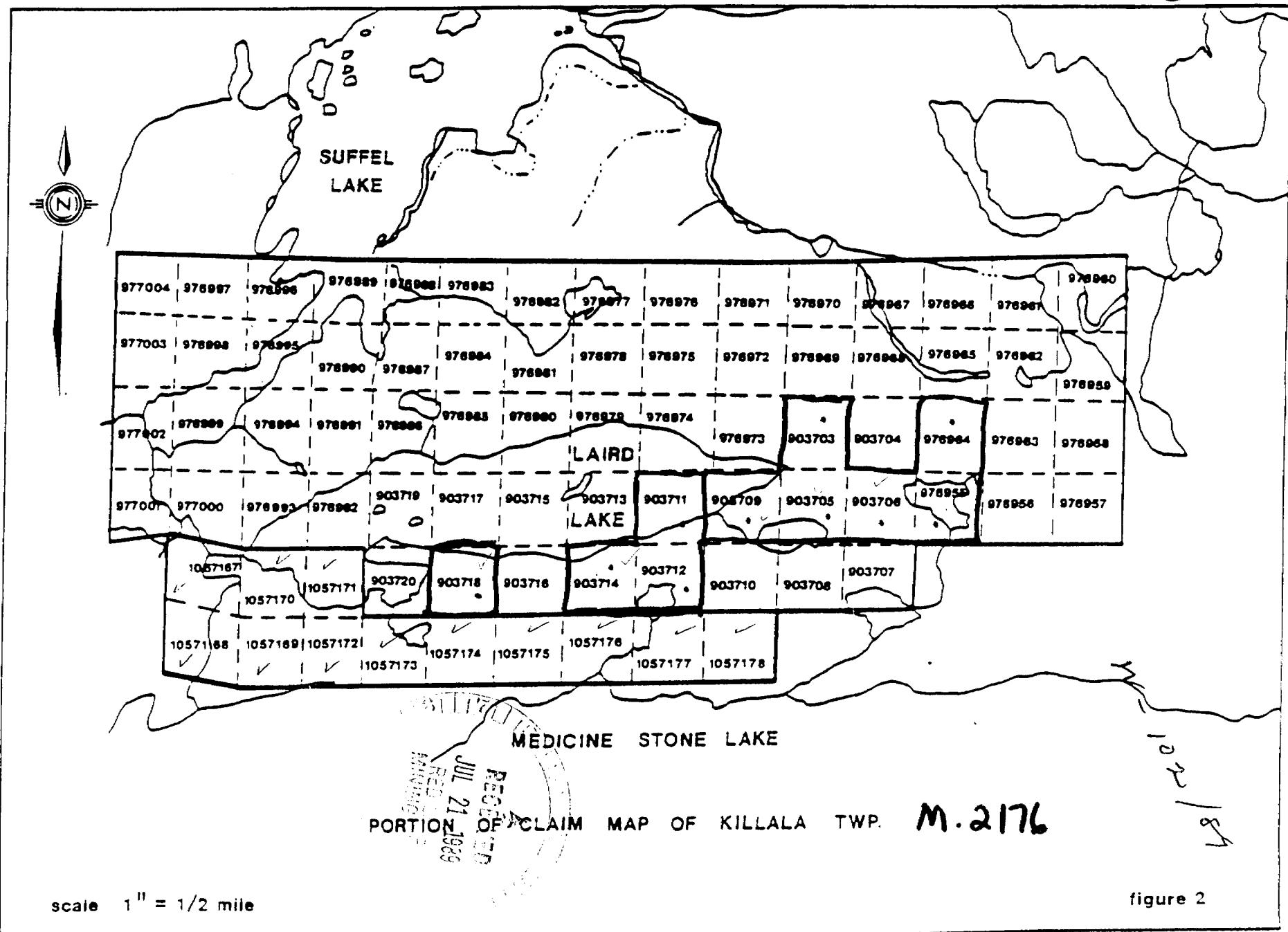


figure 2

