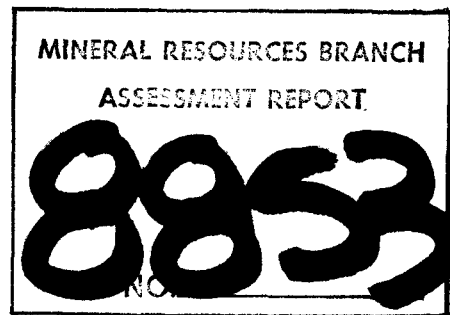


REPORT ON 1980 DRILLING
RED DOG CLAIMS
LIARD MINING DIVISION
NTS 104G/9W
57°41.3' North; 130°29.5' West

Owner of Claims: Placer Development Ltd.
Operator: Consolidated Silver Ridge Mines Ltd.
Consultant: G.A. Noel & Associates, Inc.

by



G.A. NOEL, P.Eng.

February 10, 1981

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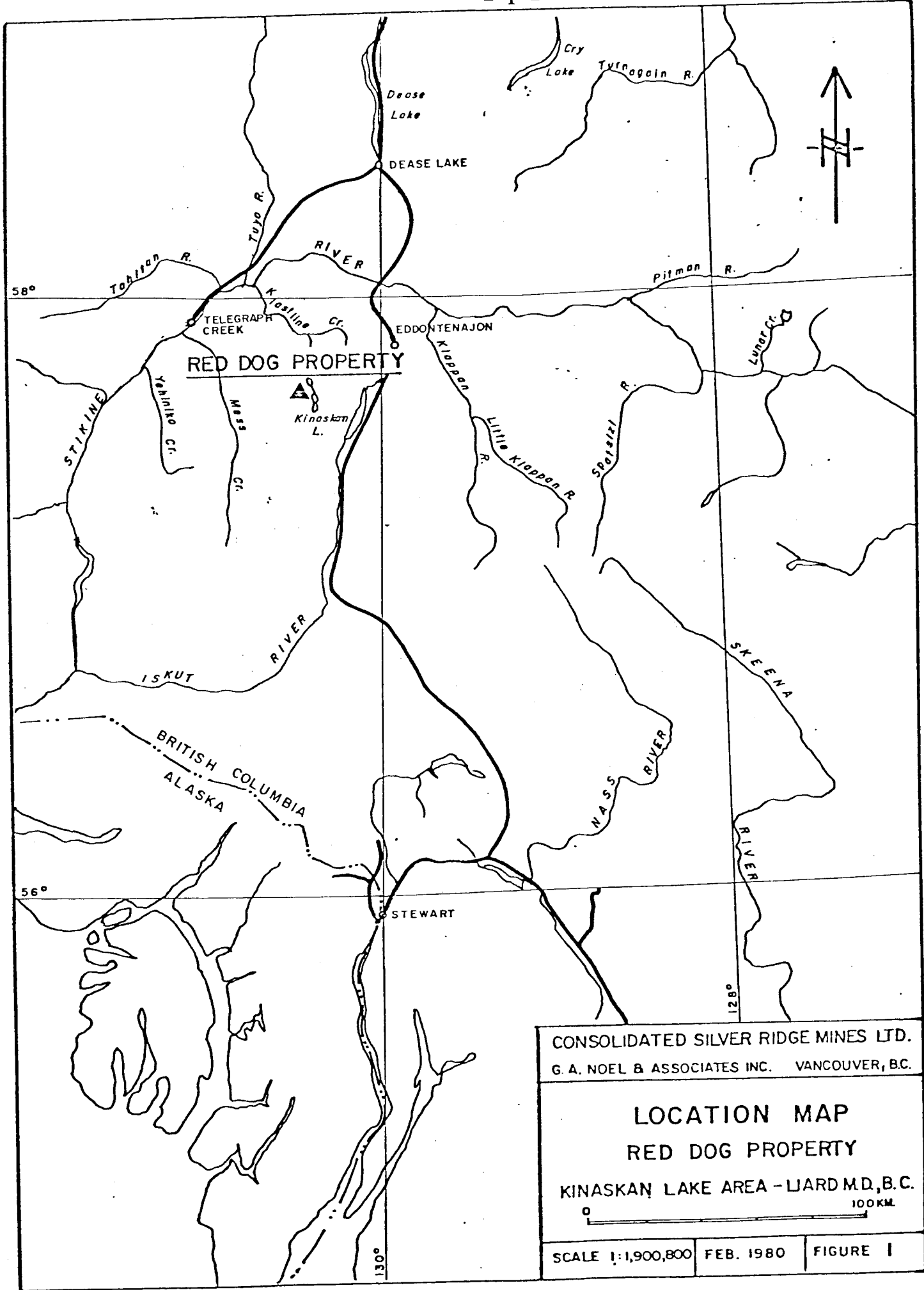
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APPENDIX

Drill Logs



CONSOLIDATED SILVER RIDGE MINES LTD.
 G. A. NOEL & ASSOCIATES INC. VANCOUVER, B.C.

LOCATION MAP
RED DOG PROPERTY
 KINASKAN LAKE AREA - LIARD M.D., B.C.

0 100 KM
 SCALE 1:1,900,800 FEB. 1980 FIGURE 1

INTRODUCTION

From June 11 to October 18, 1980, 18 N.Q. diamond drill holes totalling 2336 metres were drilled on the Red Dog property. This drilling was supervised by Roy D. Hogarth of Northair Mines Ltd. and G.A. Noel of G.A. Noel & Associates, Inc. for Consolidated Silver Ridge Mines Ltd. The Red Dog property is located on an eastern spur of Mt. Edziza about four kilometres southwest of Nuttlude Lake and 35 km west-southwest of Iskut Village which is on the Stewart-Cassiar road. The property can be reached from Iskut or Dease Lake by float aircraft to the camp on the west side of Nuttlude Lake. A six kilometre 4-wheel drive road extends southwesterly from the camp to the drilling area.

PROPERTY AND OWNERSHIP

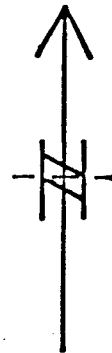
The property consists of two claims which are located in the Liard Mining Division, B.C. and are shown in Figure 2. The claims are more particularly described as follows:

<u>Claim Name</u>	<u>Claim Map</u>	<u>Units</u>	<u>Record No.</u>	<u>Expiry Date</u>
Red Dog	104G/9W	2	53	Sept.30, 1990
Red Dog	104G/9W	15	116	April 9, 1990

The Red Dog claims are held by Placer Development Ltd. for the Racicot Syndicate which consisted of Placer Development Ltd., El Paso Mining & Milling Company and Arnold Racicot. The property was optioned in May 1978 to Consolidated Silver Ridge Mines Ltd., 1450 - 625 Howe Street, Vancouver, B.C. The adjoining Pink and Red claims and the Camp claim (see Figure 2) are also held by Consolidated Silver Ridge Mines Ltd.

57° 45'

130° 30'



NUTTLUDE

LAKE

HAWK 1

532 (2)

CAMP
784 (4)

RED DOG
53 (9)

RED DOG
116 (4)

HAWK 2

533 (2)

KAKIDDI
LAKE

□ LEGAL CORNER POST

CONSOLIDATED SILVER RIDGE MINES LTD.
G. A. NOEL & ASSOCIATES INC. VANCOUVER, B.C.

CLAIM MAP

RED DOG PROPERTY

KINASKAN LAKE AREA - LIARD M.D., B.C.

0 2 KM.

SCALE 1:50,000

FEB. 1980

FIGURE 2

HISTORY

The Spectrum claims were staked in 1969 by Sparton Explorations Ltd., to cover a porphyry-type copper discovery about four kilometres southwest of Nuttlude Lake. Geological mapping and geophysical and geochemical surveys were done in 1970 by Mitsui Mining and Smelting Company Ltd. The property was optioned by Imperial Oil Limited in 1971 and additional geological, geochemical and geophysical surveys were done in 1971-2. In 1973, Imperial Oil completed 450 metres of B.Q. drilling in four holes. The Red Dog claim was staked for the Racicot Syndicate in September 1975. In 1977, Consolidated Silver Ridge Mines Ltd. negotiated an option on the property and conducted geological mapping and a geochemical soil survey in 1978. In 1979, Silver Ridge undertook road building, bulldozer trenching and diamond drilling on the property. A total of 432 metres of B.Q. and 400 metres of N.Q. drilling in 10 holes were completed between July 8 and October 14, 1979.

1980 FIELDWORK

The 1980 fieldwork consisted essentially of diamond drilling and building drilling access roads although some backhoe trenching was done to assess the precious metal content of the talus area which had shown highly anomalous gold values in 1979. The fieldwork was supervised by R.D. Hogarth and G.A. Noel for Consolidated Silver Ridge Mines Ltd. Drilling mud was used continuously and core recovery and drilling progress were both considerably improved over the 1979 drilling. Holes were generally drilled to the east, though five holes, DDH-12, 13, 14, 15 & 23, were drilled to the west. The first

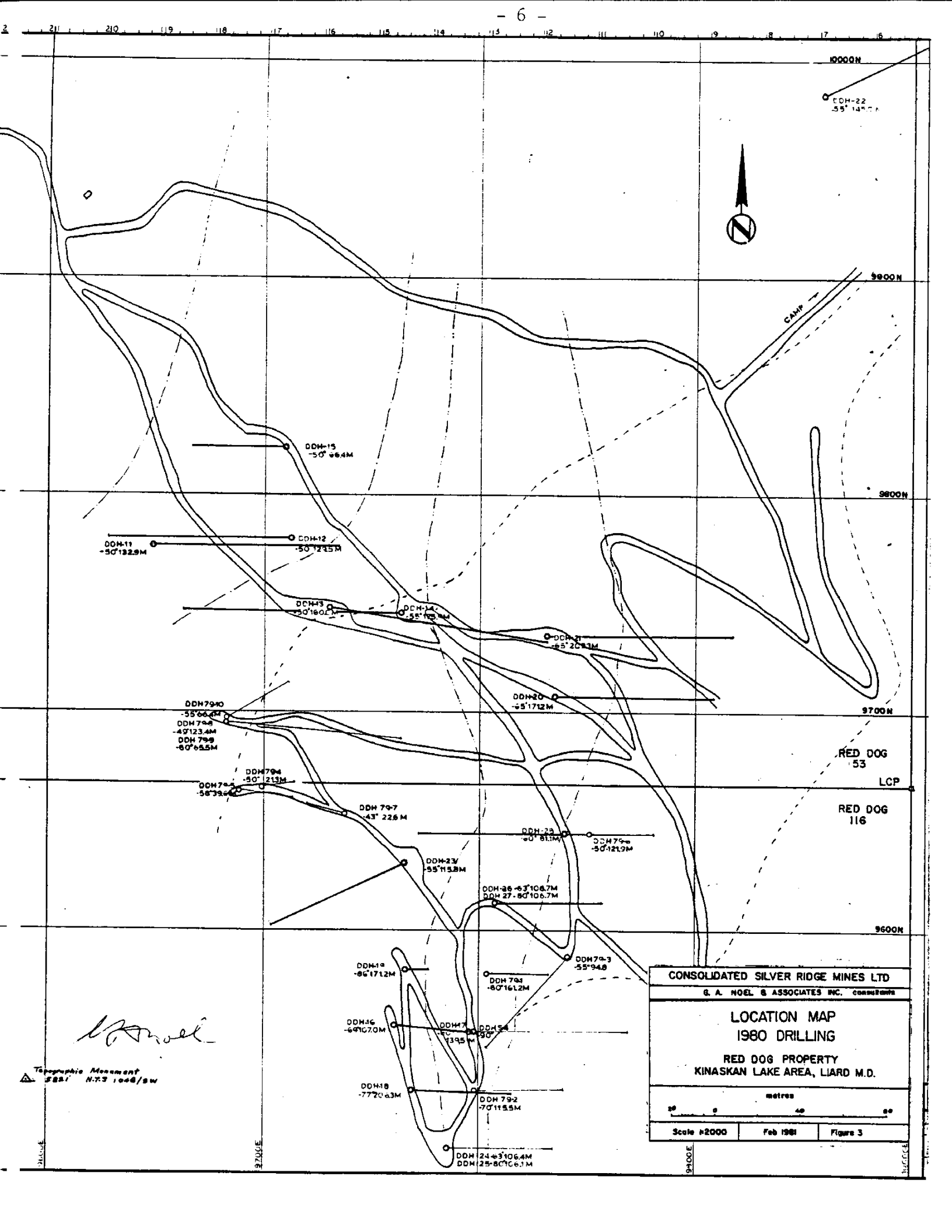
five holes DDH-11 through DDH-15 were drilled on the west side of the main dike, to follow up on several high grade intersections obtained in the 1979 drilling. Drill holes 16 through 28, except for DDH-22 and 23, were drilled on east-west sections which are spaced at about 30 metres, and all of these holes were drilled to the east. The following table summarizes the pertinent data for each of the 1980 drill holes.

Hole No.	Coordinates		Length (m)	Bearing	Dip	Collar	% Recovery
	North	East				Elev. (m) (approx.)	
11	9776.3	9648.2	132.9	N88°E	-50°	1600	-
12	9780	9712	129.5	W	-50°	1585	-
13	9750	9708	160.0	S82°E	-50°	1610	-
14	9744.2	9768.4	175.9	W	-55°	1595	-
15	9821.5	9708	66.4	W	-50°	1590	34.6
16	9556	9761	161.8	S85°E	-69°30'	1675	80.9
17	9554	9795.7	135.9	E	-60°	1665	89.2
18	9526.5	9769.7	206.3	E	-77°30'	1672	86.1
19	9581.6	9766.3	171.2	E	-85°	1668	86.1
20	9706.5	9834.2	151.5	E	-65°	1585	98.3
21	9734.8	9829.6	203.3	E	-60°	1590	98.6
22	9984	9957	145.0	N65°E	-55°	1475	90.4
23	9631	9765	115.8	S65°W	-55°	1645	84.5
24	9500	9786	106.4	E	-63°	1645	88.3
25	9500	9786	106.1	E	-80°	1645	95.0
26	9613	9808	106.7	E	-63°	1640	98.4
27	9613	9808	106.4	E	-80°	1640	96.6
28	9645	9840	81.1	E	-58°	1610	93.0

DISCUSSION OF RESULTS

DDH-11

This hole was drilled to intersect the vein-type mineralization intersected in 1979 holes 4, 8 and 10. The hole intersected Edziza volcanic talus to 28.6 metres and deeply weathered volcanic (Upper Triassic) overburden to 39.6 metres where it had to be abandoned. Unfortunately the projected vein intersection was at 35-40 metres. The hole was largely in dacitic volcanics but cut a few dike-like bands of quartz monzonite,



G. A. Noel

Topographic Monument
5881 N.T.S. 1000/SW

CONSOLIDATED SILVER RIDGE MINES LTD		
G. A. NOEL & ASSOCIATES INC. CONSULTANTS		
LOCATION MAP 1980 DRILLING		
RED DOG PROPERTY KINASKAN LAKE AREA, LIARD M.D.		
metres		
0	20	40
Scale 1:2000	Feb 1981	Figure 3

with the widest section at 101.5-110.6 metres. The hole showed negligible gold values.

DDH-12

This hole was collared 64 metres east of hole 11 and drilled to the west to intersect the vein which was missed in hole 11. Talus and overburden were encountered to 37.1 metres with dacite and rhyodacite tuff and breccia cut by several narrow quartz monzonite dikes thereafter. A strong vein of brecciated dacite with 30% quartz-carbonate matrix and well mineralized with sphalerite, galena, arsenopyrite and pyrite as stringers and disseminations was intersected from 94.4 to 96.75 metres. This section assayed 0.07 oz/ton gold. The best intersection in this hole occurred from 64.3-65.2 metres in a small quartz monzonite dike. This section assayed .242 oz/ton gold and 0.617 oz/ton silver over the 0.9 metre length.

DDH-13

This hole was located about 65 metres S65°E of hole 11 and drilled easterly (S82°E) to cut across the main quartz monzonite dike and to intersect several high grade veins seen in a surface trench in the quartz monzonite east of the drill site. The hole encountered talus boulders and overburden to 34.7 metres, dacite to 47.2 metres, quartz monzonite to 136.6 metres and dacite to the end of the holes at 160 metres. No significant veins were encountered in either volcanics or intrusive. However, the hole showed persistent low grade gold values in the intrusive from 59-108.7 metres (49.7 metres) which averaged 0.024 oz/ton gold.

DDH-14

This hole was collared 62 metres east of hole 13 and drilled to the west to intersect the vein cut by holes 8 and 12. The hole was in overburden to 24.3 metres and dacite to 175.9 metres,

the end of the hole. It intersected a number of fault zones and narrow dikes of quartz monzonite. There were no vein intersections and only very low gold values were encountered.

DDH-15

This hole was collared at 42 metres N05°W of hole 12 and drilled to the west to intersect the vein cut in hole 12. The hole was in talus overburden to 48.5 metres and had to be abandoned at 66.4 metres due to jammed rods. The hole cut heavily weathered dacite and andesite as well as a quartz monzonite dike. This hole showed negligible gold values.

DDH-16

Hole 16 was collared 43 metres west of 1973 drill hole S-4 and was drilled S85°E at -69°30' to develop an east-west section. This hole encountered overburden to 9.1 metres, quartz monzonite to 60.5 metres and rhyodacite tuff and tuff-breccia to the end of the hole at 107 metres. The section from 45.5 to 87.5 metres averaged .035 oz/ton gold over 42 metres. The best assay in this section was 0.254 oz/ton gold over 1.0 metre from 82.2 to 83.2 metres.

DDH-17

Hole 17 was collared 10 metres west of hole S-4 and drilled to the east at -60° to develop the section. The hole encountered overburden to 9.1 metres, andesite and dacite tuff and tuff-breccia with thin dikes of quartz monzonite to 56.4 metres and rhyodacite tuff and tuff-breccia to the end of the hole at 135.9 metres. The section from 9.1 to 50.5 metres averaged .037 oz/ton gold over 41.4 metres. The best assays were as follows: 47.5-

49.0 metres 0.468 oz/ton gold and 64.0-65.5 metres 0.344 oz/ton gold.

DDH-18

Hole 18 was collared 35 metres west of hole 79-2 and drilled east at $-77^{\circ}30'$ to develop this east-west section. The hole encountered overburden to 6.1 metres, andesite and dacite flows and tuffs to 23.5 metres, quartz monzonite to 63.0 metres and rhyodacite tuff and tuff-breccia to end of the hole at 206.3 metres. The section of the hole from 27 to 102 metres averaged .053 oz/ton gold over 75 metres. The best assays were as follows: 29.0-31.0 metres 0.177 oz/ton gold and 54.7-57.0 metres 0.658 oz/ton gold.

DDH-19

Hole 19 was collared 37 metres west of hole 79.1 and drilled to the east at -85° to develop the third east-west section. The hole encountered overburden to 11.9 metres, quartz monzonite to 99.7 metres and rhyodacite and dacite tuff and tuff-breccia to the end of the hole at 171.2 metres. The section from 33.5 to 117.0 metres averaged 0.037 oz/ton gold over 83.5 metres. The best assays from this hole were as follows: 33.5-35.0 metres 0.164 oz/ton gold, 54.0-55.5 metres 0.229 oz/ton gold, 101.4-102.4 metres 0.344 oz/ton gold and 102.4-103.4 metres 0.197 oz/ton gold.

DDH-20

Hole 20 was collared 67 metres $N25^{\circ}W$ of hole 6 and was drilled due east at -65° to develop a fourth east-west section. This hole encountered overburden to 6.1 metres, quartz monzonite to 32.3 metres, andesite and dacite to 51.8 metres and dacite

and rhyodacite tuff and tuff-breccia to the end of the hole at 151.5 metres. The section from 6.1 to 25.0 metres averaged .039 oz/ton gold for 18.9 metres. The best assays in this hole were as follows: 10 to 12 metres 0.112 oz/ton gold, 14.0-15.5 metres 0.104 oz/ton gold and 146.8 to 147.2 metres 0.149 oz/ton gold.

DDH-21

This hole was collared 28 metres N08°W of hole 20 and was drilled due east at -60° to develop a fifth east-west section. The hole encountered overburden to 3.3 metres, quartz monzonite to 53.5 metres, dacite and rhyodacite to 90.9 metres and rhyodacite tuff and tuff-breccia to 203.3 metres, the end of the hole. The section from 7.5 to 50.0 averaged 0.034 oz/ton gold over 42.5 metres. The best assays in this hole were as follows: 42 to 43.5 metres 0.202 oz/ton gold and 97.5 to 98.0 metres 1.582 oz/ton gold.

DDH-22

This hole was collared 281 metres N28°E of hole 21 and drilled N65°E at -55° to intersect at least three gold-bearing veins exposed along the drill access road below the old drill camp. The hole was in rhyodacite tuff-breccia throughout and intersected five vein zones, three of which showed gold assays. The vein intersections and their assays are shown in the following table:

<u>Core Intercept</u> (m)	<u>Length</u> (m)	<u>Au oz/ton</u>	<u>Description</u>
41.3-43.3	2.0	0.144	{siliceous with disseminated pyrite, sphalerite & arsenopyrite.
74.7-75.2	0.5	Tr.	{qtz-carb. stringers with sphalerite, pyrite, arsenopyrite.
81.2-81.6	0.4	0.028	{brecciated with quartz-carbonate stringers and stringers of py. sphal. & arseno.
99.5-100	0.5	0.006	{brecciated; qtz-carbonate stringers with weak arsenopyrite, pyrite & pyrrhotite.
130.3-130.5	0.2	Tr.	{brecciated; qtz-carbonate with weak arsenopyrite, pyrite & sphalerite.

Outside of the veins the core showed negligible gold values.

DDH-23

Hole 23 was collared 37 metres S52°E of hole 79-7 and was drilled S65°W at -55° dip to check the section of volcanics west of the main dike and capped by Edziza volcanics. This area is topographically above the main gold soil anomaly. The hole encountered overburden to 7 metres and andesite, dacite and rhyodacite tuffs and breccias to the end of the hole at 115.8 metres. Several narrow quartz monzonite dikes and a number of fault zones were also intersected. The hole showed very low gold values throughout with the highest individual assay being 0.047 oz/ton gold from 63.4-65 metres.

DDH-24

This hole was collared 32 metres S32°E of hole 18 and was drilled due east at -63° dip to develop another east-west section south of the section through holes 18 and 79-2. The hole encountered overburden to 6.1 metres, dacite tuff-breccia to 16.8 metres, quartz monzonite to 43.6 metres and rhyodacite

tuff-breccia to 106.4 metres, the end of the hole. The entire hole showed only very low gold values throughout with the section from 45 to 72.5 metres averaging 0.022 oz/ton gold over 27.5 metres.

DDH-25

Hole 25 was drilled from the same collar as hole 24 but at -80° to the east to complete this east-west section. It encountered overburden to 6.1 metres, quartz monzonite to 78.3 metres and rhyodacite tuff-breccia to 106.1 metres, the end of the hole. This hole also showed very low gold values with the section from 62 to 88 metres averaging .017 oz/ton gold over 26 metres.

DDH-26

Hole 26 was collared 34 metres $N08^{\circ}E$ of hole 79-1 and was drilled due east at -63° dip to develop an east-west section between holes 79-1 and 79-6. This hole encountered overburden to 6.1 metres, quartz monzonite to 39.7 metres and dacite tuff-breccia to 106.7 metres, the end of the hole. The section from 6.1 to 38 metres averaged 0.049 oz/ton gold over 31.9 metres. The best assays in this hole were as follows: 8 to 10 metres 0.206 oz/ton gold and 104 to 106.7 metres 0.177 oz/ton gold.

DDH-27

Hole 27 was drilled from the same collar as hole 26 at -80° to the east to complete this section. It encountered overburden to 4.6 metres, quartz monzonite to 39.9 metres and dacite and rhyodacite tuff-breccia to 106.4 metres, the end of the hole. The section from 4.6 to 50 metres averaged 0.023 oz/ton gold over 45.4 metres. The best assays in the hole were as follows: 24 to 26 metres 0.106 oz/ton gold and 90 to 92.5 metres 0.134 oz/ton gold.

DDH-28

Hole 28 was collared 25 metres west of hole 79-6 and was drilled due east at -58° dip to complete the east-west section through hole 79-6. The hole encountered overburden to 6.4 metres and dacite tuff-breccia to 81.1 metres, the end of the hole. Several narrow quartz monzonite dikes were intersected in the upper part of the hole. The section from 6.4 to 49 metres averaged 0.042 oz/ton gold over 42.6 metres. The best assays in the hole was as follows: 9-11.1 metres 0.118 oz/ton gold, 32 to 33 metres 0.463 oz/ton gold, 41 to 43.7 metres 0.129 oz/ton gold and 45.2 to 46.9 metres 0.118 oz/ton gold.

STATEMENT OF COSTS

Period: June 11 - Oct. 18, 1980 (129 days)

Personnel:	Geologist:	60 days	Rate: \$120/day	
	Consultant:	20 days	Rate: \$250/day	
	Assistant:	80 days	Rate: \$50/day	
	Drillers:	4 men - 113 days		

Wages and salaries:

Geologist	60 x \$120	\$ 7,200.00	
Consultant	20 x \$250	5,000.00	
Assistant	80 x \$50	<u>4,000.00</u>	\$ 16,200.00

Food and accomodation @ \$30/day/man

Drillers:	4 x 113 x \$30	\$13,560.00	
Geological:	160 x \$30	<u>4,800.00</u>	18,300.00

Travel & expenses 2,000.00

Assays:

927 fire assays for Au @ \$7	\$ 6,489.00	
93 " " " Au & Ag @ \$14	1,302.00	
1020 samples prepared @ .75¢	<u>765.00</u>	8,500.00

Freight:

Food, fuel & equipment (Truck from Terrace; aircraft & helicopter from Iskut)		13,720.00
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Bulldozer:

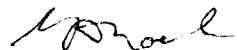
Access roads, site preparation & drill moves: 320 hrs. @ \$50/hr.		16,000.00
--	--	-----------

Drilling:

2336 metres @ \$105/metre		<u>245,280.00</u>
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TOTAL \$320,000.00

Respectfully submitted,



G.A. NOEL, P.Eng.

Vancouver, B.C.
February 19, 1981

G. A. NOEL & ASSOCIATES INC.
CONSULTING GEOLOGISTS

STATEMENT OF QUALIFICATIONS

Roy D. Hogarth - project geologist, Northair Mines Ltd.

- graduate of Haileybury School of Mines, 1967
- geologist - United Keno Hill Mines Ltd., 1967-1972
- geological technician - Similkameen Mines, 1972-1974
- mine geologist, Northair Mines Ltd., 1974
- project " " " " 1975-present

Gerald A. Noel - consulting geologist

- graduate of University of B.C. (B.A.Sc.) - 1950
- graduate of University of Toronto (M.A.Sc.) - 1951
- member of Prof. Engineers of B.C. - Reg.#4283
- worked in mining exploration continuously since 1951
- consulting geologist with G.A. Noel & Associates Inc., 1976 to present



A P P E N D I X

Drill Logs

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
			40							<u>39.6-40.2 Dacite</u> heavily fractured, limonite stained with disc Fe ₂ S ₂	
	2/8									<u>40.2-42.7 Vein Zone??</u> Dacite - heavily fractured, limonite stained, 50% gouge zone visible fine grained Arseno at 40.5. Approx 30% Quartz-Carbonate	
			42.7							<u>42.7-44.4 Dacite</u> fresh, fractured, containing 15% web-like Q-C stringers and 3% disc Fe ₂ S ₂ gouge zone from 42.8-42.85	
			4							<u>44.4-48.5 Dacite</u> Appears to be same rock as above, but ground up in a large gougey fault zone.	
	9/13									fractured with 3% Q-C stringers. At 49.0 <u>48.5-49.5 Dacite</u> 2cm Q-C stringers containing PbS-ZnS, FeS ₂ & FeAsS. 1% disc Fe ₂ S ₂ throughout.	
										<u>49.5-51.5 Quartz Monzonite</u> - few minor Q-C stringers cutting through it. 2% disc Fe ₂ S ₂ throughout. Minor fine grained FeAsS and CuFeS ₂ . At 51.5 there was 4cm Q-C stringers containing ZnS, PbS, FeAsS, & FeS ₂	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
			53							<p><u>51.5-54.9 Diabase</u></p> <p>10cm gauge, then just 5cm very fine grained siliceous (chilled margin?) 10% web like Q-L stringers (80% Calc) with 3% fine disse FeSe throughout Hematite & magnetite in some Q-L stringers. 15cm gauge zones at 53.0m and 54.6m. From 53-54.9 core is very broken.</p>	
			54							<p><u>54.9-57.6 Quartz Monzonite</u></p> <p>54.9-55.5 - very leached soft 55.5-56.1 brecciated with Q-L fracture filling. Monzonite is cut by 15% Q-L stringers and contains 1% disse FeSe. Sharp contact at 65° to A/C.</p>	
			57							<p>Diabase containing 15% thin Q-L stringers and 3% disse FeSe. At 58.1 there is a 10cm stringer of Rhyodacite - Diabase breccia cut by web-like Q-L stringers and containing ZnS-PbS & FeAsS. 1-2% disse FeSe. Contains 1-2 mm angular & sub-rounded fragments of Plagioclase. Matrix is dark green black. Minor Chlorite & muscovite epidote.</p>	
			59							<p><u>Diabase 59.4-63.4</u></p> <p>Diabase cut by web like Q-L stringers and containing 3% disse & stringers FeSe.</p>	
			63							<p><u>63.4-75.9 Diabase</u></p>	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
			66							<p>634-75.9 <i>Wairite</i></p> <p>Gradual change from green to grey-black. Minor hematite and Muscovite in some Q-C stringers</p> <p>1-2% des. & stringers FeS₂. Very minor Q-C stringers</p> <p>From 67.0 core gradually changes from grey-green to green.</p>	
			75								
			77							<p>759-80.5 <i>Ven.??</i></p> <p>Wairite light grey-green. Sharp contact at 45° to 77°E. Appears to be a mineralized bed with 15% Q-C stringers. There is brown ZnS-PbS FeS₂ CuFeS₂ and FeAsS mineralization along a few of the stringers</p>	

DRILLING
INTERVAL% CORE
RECOVEREDCORE
SIZE

SECTION

ALTERATION

FRACTURING

MINERAL

GEOLOGY

COMMENTS:

AVE. CORE
REC'Y/HOLE:

Route 91.0-101.5.

Dark green 10cm gauge sharp contact at 50° to A₂E.
10cm gauge zone at 93.9m 80° to A₂E.

gauge slip at 100.0m 70° to A₂E.

Contains 12% stringers of Q-E and 3% fine
diss FeS₂

100

101.5-110.6 Quartz Monzonite

Sharp contact at 45° to A₂E. Contains 2-3% finely diss FeS₂
Structure is cut by fine Q-E stringers

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
										107.4-107.7 30% Q-C stringers intersecting at 50-70° to ASDC contains fine disse PbS, FeAsS, CuFeS ₂ & FeS ₂	
										109.7-110.6 % age of mineralization increases with minor disse PbS, FeAsS. Sharp contact at 70° to ASDC.	
										110.6 - 132.9 Vaute	
										Dark green, heavy splinted alteration. Core is very fractured with red-brown limonite stain along fracture surfaces. 3% Q-C stringers & minor disse FeS ₂	
										121.6 Gange (Fault) 20° to ASDC	
										123.2 minor CuFeS ₂	
										DIP TEST 253' APP DIP - 68° 425 " " - 68°	

Project CONS. SILVER EDGE Location RED DOG
 Hole No. 11 Page No. 1 of 2
 Coordinates: 97763 N 9648.2 E
 Collar elev. _____ Bearing N88°E
 Inclination -50° Total Depth 132.9M

Contractor LONGYEAR
 Date Started _____
 Date Finished _____
 Ref. to Claim Corner _____
 Logged by R. Hogarth

Depth Interval		CORE								Depth Interval		SLUDGE					
From	To	Sample No.	Inches Rec.	% Rec.	ASSAY				From	To	Sample No.	Lbs. Rec.	% Rec.	ASSAY			
					AU	Ag								AU	Ag		
28.6	32.7	2551B			TR	TR			63.4	64.1	2572B			TR	TR		
32.7	34.1	52			TR	TR			64.1	65.6	73			.028	.055		
34.1	35.4	53			TR	TR			65.6	67.0	74			TR	TR		
35.4	37.1	54			TR	TR			67.0	69.1	2575B			TR	TR		
37.1	39.6	55			TR	TR			69.1	70.6	76			TR	.096		
39.6	40.2	56			.028	.378			70.6	72.3	77			TR	TR		
40.2	42.7	57			.019	.026			72.3	74.6	78			TR	TR		
42.7	44.4	58			.023	.270			74.6	76.1	79			TR	.275		
44.4	45.7	59			TR	TR			76.1	78.2	2580B			TR	.173		
45.7	48.5	2560B			TR	TR			78.2	79.6	81			.022	.186		
48.5	49.5	61			.021	.204			79.6	80.5	82			TR	TR		
49.5	50.3	62			TR	TR			80.5	82.5	83			TR	.191		
50.3	51.5	63			.007	.072			82.5	84.7	84			TR	TR		
51.5	52.8	64			.022	.091			84.7	85.3	85			TR	.056		
52.8	54.9	65			TR	.028			85.3	86.6	86			TR	.024		
54.9	55.5	66			TR	TR			86.6	88.5	87			TR	TR		
55.5	56.1	67			TR	TR			88.5	89.9	88			TR	.028		
56.1	57.6	88			TR	.242			89.9	91.4	89			TR	TR		
57.6	59.4	69			TR	TR			91.4	92.9	2590B			TR	TR		
59.4	61.9	2570B			TR	TR			92.9	94.4	91			TR	TR		

Project CONSOLIDATED SUPERKIM Loc: RED 106
 Hole No. 12 Page No. 1 of 4
 Coordinates: 9780 N 9719 E
 Collar elev. 1585 m. Bearing Due West
 Inclination -50° Total Depth 129.5 metres (83.1)

Contractor CONYENK
 Date Started July 1980
 Date Finished July 1980
 Ref. to Claim Corner
 Logged by R. B. Smith

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
										0.0 - 35.2 <i>Calzaya Talus</i>	
										35.2 - 37.1 <i>Overburden</i>	
										37.1 - 37.3 <i>Saite grey-black.</i>	
										37.3 - 39.3 <i>Quartz Monzonite</i> Contains 3% diss FeS ₂ and minor CuFeS ₂ and FeAsS.	
										39.3 - 48.6 <i>Rhyodacite</i> Slightly brecciated and containing 20% Q-C stringers. Zone as 50% gauge. Contains 5-7% diss FeS ₂ . Minor visible PbS at 40.3 metres	
										48.6 - 51.2 <i>Rhyodacite-Saite breccia</i> Contains 3% diss FeS ₂ and 2% fine diss Q-C stringers	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
										51.2-53.6 Quartz Monzonite contains 4% fine duss FeS ₂ 5% Q-C stringers cutting at 30-45° to A&C. At 53.6 sharp contact at 45° to A&C.	
										53.6-64.3 Dacite Grey-green fine grained. 5% fine Q-C stringers 1% fine duss FeS ₂	
										64.3-65.2 Quartz Monzonite contact at 40° to A&C. 2% duss FeS ₂ Contact 50% A&C	
										65.2-75.0 Dacite Grey-green contains fine randomly oriented Q-C stringers 2-3% fine duss FeS ₂ . There are duss 1-2 mm elongated, subrounded black crystals.	
										75.0-75.65 Vein contact at 30° to A&C. light green brecciated 70% Dacite 30% Q-C with 5-7% duss FeS ₂ (coarse) contains duss stringers ZnS-PbS and probably FeAsS mineralization	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
										76.65-94.4 Daulte. light medium grey-green containing 10% Q-C stringers and 3% dross and stringers FeS ₂ . Minor dross sub-rounded black crystals 8&1- 5cm gauge (fault) 45° to H&P. 78.0 Minor Zn-Pb in Q-C stringer 1cm 90.3-91.3 Fault zone - gauge and re-cemented angular fragments of Daulte. 94.4-96.75 Vein zone. Brecciated Daulte with 30% Q-C. Very well mineralized with stringers and dross ZnS-PbS (5%) FeAsS (2%) FeS ₂ (7%) 96.75-109.0 Daulte Grey-green with randomly oriented Q-C stringers Minor dross ZnS-PbS mineralization in the stringers 3% dross FeS ₂	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
										<p>109.0 - 129.5 <i>Sawte</i> Medium green, leached, waxy. 3% to less FeSe 5% fine P-C stringers from 119.8 core is very broken. 125.0 Fault (gauge) 60° to NPE.</p> <p>210' APP DIP 56° TRUE DIP 420' APP DIP 56°</p>	

Location LED 1108
 Hole No. 13 Page No. 1 of
 Coordinates: 9750 N 9732 9708 E
 Collar elev. 1610 m. Bearing N 29° 0'
 Inclination -50° Total Depth 160.0 METRES. (102.8)

Contractor LONGYENK
 Date Started July 1980
 Date Finished July 1980
 Ref. to Claim Corner
 Logged by R. Hogarth

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
										0-34.7 Talus boulders & overburden	
										34.7-47.2 Slaty grey-black with 1-5 mm. Q-C stringers (10%) contains 2% disc FeS ₂ and a few specks FeAsS.	
										47.2-47.7 Quartz Monzonite: Sharp gauge contact at 45° to HSC. contains 2% disc FeS ₂ and minor disc CuFeS ₂	
										47.7-47.9 Vein zone. 90% carbonate 10% Quartz containing 20% combined ZnS, PbS, FeAsS, FeS ₂ and CuFeS ₂ . Contact at 45° to HSC.	
										47.9-108.7 Quartz Monzonite. Pink green. First 0.5 metres contains FeAsS. Numerous chips of ground Monzonite at 45° to HSC.	
										52.7-1cm Q-C stinger containing ZnS-PbS FeAsS	
										61.7-69.7 There are numerous ground up gouge zones at 50-70° to HSC. These exist throughout but are predominant here	
										There is ~25% disc CuFeS ₂ throughout.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
										108.7-109.5 Dyke - black fine grained, contact at 45° to 45° E. (Basalt - Lampyrophyre)	
										109.5-136.6 Quartz Monzonite as above.	
										127.8-136.6 Brecciated & interbedded Daulte & Quartz Monzonite Reconcentrated in places with Q-C.	
										136.6-160.0 Daulte. Brown-green. Sharp contact at 45° to 45° E. 10% Q-C with 4% class Fe ₂ O ₃ and 1% dolerite Cu Fe ₂ O ₃	
										145.8-146.3 - Brecciated fault zones (not veins) with sharp contacts at 45° to 45° E.	
										155.0 15 cm breccia zone, possible vein 10% Fe ₂ O ₃ 1% Cu Fe ₂ O ₃	
										158.0-158.3 Breccia zone, possible vein 10% Fe ₂ O ₃ 1% Cu Fe ₂ O ₃	
										ECH 160.0	
										Meters App dip True dip	
										81 620	
										160 60°	

Proj CONC. S. W. - R. L. - Non. P. D. I.
 Hole No. 13 Page No. 1 of 2
 Coordinates: 9750 N 9732 9108 E
 Collar elev. _____ Bearing D. W. WEST
 Inclination -50° Total Depth 160.0 metres

Cc for 1 26 2
 Date Started _____
 Date Finished _____
 Ref. to Claim Corner _____
 Logged by R. H. Gault

Depth Interval		CORE							Depth Interval		SLUDGE						
From	To	Sample No.	Inches Rec.	% Rec.	ASSAY				From	To	Sample No.	Lbs. Rec.	% Rec.	ASSAY			
					Hu	Ac								Hu	Ac		
34.7	36.6	2745B			.012	TR			79.3	80.8	2666B			.027	.049		
36.6	38.4	46			.024	TR			80.8	83.0	67			TR	.047		
38.4	41.4	47			.017	TR			83.0	85.2	68			.025	TR		
41.4	43.4	48			.012	TR			85.2	87.7	69			.013	.045		
43.4	44.4	49			.008	TR			87.7	90.4	2670B			.027	TR		
44.4	46.5	2750B			TR	.246			90.4	93.1	71			.026	TR		
46.5	47.7	2651B			.011	.053			93.1	95.5	72			.049	TR		
47.7	47.9	52			TR	TR			95.5	97.2	73			.034	TR		
47.9	50.8	53			.007	.046			97.2	99.1	74			.023	TR		
50.8	53.0	54			.006	.073			99.1	101.3	75			.021	TR		
53.0	55.5	55			TR	.052			101.3	103.4	76			.021	TR		
55.5	57.3	56			.026	.041			103.4	105.1	77			.023	TR		
57.3	59.0	57			.007	.042			105.1	106.5	78			.023	TR		
59.0	61.3	58			.020	.053			106.5	108.7	79			.023	.6634		
61.3	63.4	59			.039	.805			108.7	109.5	2680B			TR	TR		
63.4	65.8	2660B			.054	.063			109.5	111.9	81			.022	TR		
65.8	68.9	61			.023	.065			111.9	114.0	82			.008	TR		
68.9	71.6	62			.019	.133			114.0	116.3	83			TR	TR		
71.6	74.2	63			.017	.060			116.3	118.3	84			.016	.054		
74.2	77.0	64							118.3	120.5	85			.027	.105		
77.0	79.3	65			.016	.111			120.5	123.3	86			.014	.099		

Core SHELF INDEX
 Location KED 106
 Hole No. 14 Page No. 1 of 4
 Coordinates: 9744.2 N 9768.4 E
 Collar elev. 1595 m Bearing 270°
 Inclination -55° Total Depth 175.9 metres (1009)

Contractor LONGYEAR
 Date Started July 1980
 Date Finished July 21, 1980
 Ref. to Claim Corner
 Logged by R. Hogarth

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
										00-24.3 Overburden.	
										24.3-29.6 Saito. Black with 10% Q-C stringers and 2% disc FeS ₂ loss 2m	
										26.2-28.6 - (gauge) fault zone.	
										29.6-30.9 Quartz Monzonite Sharp contact at 25° to ASDC. Contains 2% combined FeS ₂ , CuFeS ₂ and Pyrr.	
										30.9-71.0 Saito - Black, contains 5% Q-C stringers	
										33.8-34.0 - Fault gauge	
										35.6-357 - " "	
										35.9-36.0 " "	
										Core is very broken. Minor epidote alteration	
										38.7-38.8 Fault gauge	
										40.0-41.7 " " ± 50% Saito	
										43.0 - Core becomes much blockier. Contains 2-3% disc FeS ₂ . Amount of Epidote alteration increases	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS	AVE. CORE REC'Y/HOLE
										49.2-50.3 Fault gauge 30% and 50% brecciated Diabase lens. 5m. cemented by Q.C.	
										52.0 - Gradual change to a medium green colour. More Chlorite alteration	
										62.8-63.1 Fault	
										66.8-67.0 Fault gauge. Banded Q.C. 80° to N of E.	
										71.0-72.0 Quartz Monzonite. Pink-green sharp contact at 80° to N of E. Stringers of FeS ₂ cross through contact.	
										72.0-95.7 Diabase. Medium green. Chlorite & Epidote alteration. Contains 2% diss FeS ₂	
										75.0-95.7 Core is very broken & limonite stained on fracture surfaces.	
										86.5-86.9 Fault (gauge)	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS	AVE. CORE REC'Y/HOLE
										95.7-105.0 Saulte Same as above, but no limonite staining of fracture surfaces.	
										102.2-103.7 Fault zone with gouge layers throughout Saulte is brecciated in places and altered to a light green (Epidote)	
										103.7-105.0 Breccia and alteration zone. Core varies from light to dark green. In places Q-C composes the breccia matrix	
										105.0-115.3 Saulte Grey-black containing 5% Q-C stringers and 2% diss Fe ₂ . Minor diss Epidote	
										109.8 Fault 15cm gouge	
										110.9 " 5cm "	
										112.6-115.3 Ground is very faulted and broken. Increase in the amount of Fe ₂ and Epidote.	
										115.3-126.0 Quartz Monzonite Pink-green Contact at 35° to A&C. Last 1.2 metres is gougy & broken Contact at 50° to A&C.	

Proj. Perm. C. 1460 Ridge - Non. FD 1 m
 Hole No. 14 Page No. 1 of
 Coordinates: 9744.2 N 9768.4 E
 Collar elev. Bearing
 Inclination -55° Total Depth 175.9 m

Contractor
 Date Started
 Date Finished
 Ref. to Claim Corner
 Logged by

Depth Interval		CORE							Depth Interval		SLUDGE						
From	To	Sample No.	Inches Rec.	% Rec.	ASSAY			From	To	Sample No.	Lbs. Rec.	% Rec.	ASSAY				
					Au								Au				
24.3	26.2	2782B			.010			65.4	67.7	2803B			.001				
26.2	28.6	83			.013			67.7	70.1	04			.016				
28.6	29.6	84			.013			70.1	71.0	05			.008				
29.6	30.9	85			.007			71.0	72.0	06			.022				
30.9	32.7	86			.007			72.0	74.1	07			.006				
32.7	35.9	87			.009			74.1	75.8	08			.005				
35.9	38.2	88			TR			75.8	77.6	09			TR				
38.2	40.0	89			.006			77.6	79.8	2810B			TR				
40.0	41.7	2790B			.030			79.8	82.1	11			TR				
41.7	43.9	91			TR			82.1	83.8	12			TR				
43.9	45.7	92			TR			83.8	85.3	13			TR				
45.7	47.3	93			.010			85.3	86.5	14			TR				
47.3	49.2	94			.008			86.5	86.9	15			TR				
49.2	50.3	95			.009			86.9	89.1	16			TR				
50.3	53.0	96			.006			89.1	91.5	17			TR				
53.0	55.1	97			TR			91.5	93.9	18			TR				
55.1	57.2	98			.006			93.9	95.7	19			.008				
57.2	58.5	99			TR			95.7	97.2	2820			.014				
58.5	60.8	2800B			.006			97.2	99.1	1			TR				
60.8	63.1	01			TR			99.1	101.2	2			TR				
63.1	65.4	02			.008			101.2	102.2	2823			TR				

Co. Sik Didge Mines Locat. Karl Dog Property

Contractor 607/1001

Hole No. 15 Page No. 1 of

Date Started July --, 1980

Coordinates: 9821.5 N 9708 E

Date Finished July 27, 1980

Collar elev. 1590 m Bearing due W

Ref. to Claim Corner

Inclination -50° Total Depth 66.4 m. (420)

Logged by G. Noel

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
											34.6%
0 - 48.5										<u>Overburden</u> - Edziza volcanic boulders, mainly vesicular basalt to 44.8 m.; thin porphyritic basalt and Fe Ox clay with pebbles & some conglomerate.	
48.5 - 52.1										<u>Dacite and Andesite</u> : almost completely disintegrated and decomposed? to iron oxide clay & sand; some pieces iron-stained dacite with disseminated pyrite	
52.1 - 53.3										<u>Edziza Volcanics</u> : few small pieces vesicular basalt.	
53.3 - 54.9										<u>Dacite and Andesite</u> : heavily weathered to iron oxide clay and numerous small fragments; dissem. pyrite; Estimate 2% sulphides.	
54.9 - 66.4										<u>Quartz Monzonite</u> : fine to medium grained grey; heavily fractured; disseminated pyrite; fracturing parallel to core & at 20°; extremely fragmented; estimate 2% sulphides.	
66.4 - End of Hole											
[Hole stopped due to stuck rods]											

Loc. 1. Silver Ridge Mine III Location Red Dog Project
 Hole No. 16 Page No. 1 of 6
 Coordinates: 9556.0 N 9761.0 E
 Collar elev. 1675 m. Bearing S85°E
 Inclination -69°30' Total Depth 161.8 m. (507')

Contractor Lungyear Canada Inc.
 Date Started July 28, 1980
 Date Finished August 3, 1980
 Ref. to Claim Corner _____
 Logged by G.A. Noel

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
											80.9%
										0-9.1 : <u>Overburden</u>	
										9.1-25.8: <u>Quartz Monzonite</u> : fine grained, pinkish grey, variable hardness; strongly leached and altered in places; disseminated pyrite - estimate 2% sulphides; few thin quartz and calcite seams @ 20' & 40' to core.	
										10.7-11.6: 3-5 mm quartz sms @ 20'.	
										11.6-14.0: thin calcite - quartz seams @ 40', 60' & 80'; talc and chlorite along fractures @ 45' & 50'.	
										14.0-17.1: light fracturing @ 30', 50', 70'; qtz veinlets (2-10mm.) @ 45', 80' & parallel to core; sparse dissem. py.	
										15.3-15.4: Fault @ 30'.	
										16.7-17.8: Fault parallel to core	
										18.1: Fault @ 25'	
										19.8-20.1: Fault @ 30'	
										17.1-20.1: { Light fracturing @ 20', 30', 50', 80' & parallel to core Dissem. py. - estimate 1-2% sulphide	
										20.1-22.2: Strongly leached; fractures @ 30', 40', 60' & 70' Faulting: @ 21.4 m. - 3 cm. @ 40'; 21.6 m @ 60' (1 cm. gouge); & 21.8-22.0 @ 20'. Est. 2% sulphides as dissem. py.	
										22.2-25.8: Strongly leached; fractures @ 50' & parallel to core; numerous qtz sms 1 to 10 mm. @ 30', 60' and parallel to core; Est. 1-2% sulphides & dissem. py.; little magnetite.	
										22.7: Fault (1 cm) @ 50'.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS	AVE. CORE REC'Y/HOLE:
											80.9%
										<p>9.1 - 25.8: <u>Quartz Monzonite</u>: see page 1 for description.</p> <p>23.2: thin shearing @ 40°</p> <p>24.1: gouge @ 40°</p> <p>24.6: Fault (1cm. gouge) @ 70°</p> <p>24.8 - 25.0: thin shearing with gouge @ 10°</p> <p>25.8 - 28.3: <u>Altered Tuffs</u>: mottled grey, dark brown and black; fairly hard; biotized and chloritic; upper contact @ 60°, lwr contact 40° - some shearing along contacts; lightly fractured; thin calcite and qtz seams @ 30° to core; Estimate 2-3% sulphides as pyrite with some cpy. as disseminated,</p> <p>27.7: 5 cm. shear @ 40°</p> <p>28.3 - 60.5: <u>Quartz Monzonite</u>: light grey green, pink and tan porphyritic with feldspar phenocrysts; few irregular calcite and quartz seams parallel to core and @ 30° & 70°; est. 1-2% sulphides, mainly dissem. py.</p> <p>33.0: 5mm. shearing @ 60°</p> <p>33.2: 2cm. " @ 40°</p> <p>33.6: 2mm. " @ 30°</p> <p>34.3: 3mm. " @ 50°</p> <p>35.2: 5mm. " @ 20°</p> <p>35.4 - 46.0: lightly fractured @ 20°, 40°, 60° & parallel to core; Est. 2% sulphides as fine pyrite.</p> <p>35.6: shearing @ 30° & 80° (5cm. gouge)</p>	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE: 80.9%
										28.3-60.5: <u>Quartz Monzonite</u> : see pages 1 & 2 for description.	
										36.6: 3 mm. gouge @ 70°	
										37.1 & 37.3: 1-3 mm. gouge @ 60° and parallel to core.	
										38.1: 2 cm. gouge @ 30°	
										38.4: 3 cm. " @ 70°	
										38.7: 1-3 mm. " @ 50° and parallel to core.	
										39.2: 3 mm. " @ 20°	
										42.6-42.8: 3 mm. gouge @ 20°, 40° & 60°.	
										38.6: 1.5 cm. CaCO ₃ w. pyrite ⁽⁺⁾	
										46.0-50.6: } slightly leached; light fracturing @ 30°, 50° & 60°. (few qtz & calcite seams @ 30° & 50°; est. 2% sulph. as py.)	
										47.6: 1 mm. shearing @ 30°	
										48.5-48.6: sheared @ 50°	
										50.6-53.6: } heavily leached & altered; light fracturing @ 40°, 50° & 60°; (Est. 1-2% sulphides as dissem. pyrite with a little cpy.)	
										50.9: 1 mm. gouge @ 30° & 60°	
										51.6: 5 mm. " @ 40°	
										52.1: shearing @ 50°	
										53.6-56.1: light fracturing @ 20°, 30°, 40° & 60°; estimate 1% sulphides with pyrite disseminated & in few seams; few specks cpy.	
										53.6: 5 mm. gouge @ 50°	
										54.8-55.6: sheared @ 10°, 30° & 40°	
										56.0: shearing @ 30°	
										56.1-60.5: heavily fractured & sheared @ 40° & parallel to core; iron oxide; lwr contact @ 40° with 1.5 m. of qtz monzonite strongly leached & sheared @ 40°.	
										Est. 1-2% sulph. as dissem. py. & pyr. w. few specks cpy.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
											80.9%
										58.9-59.2: black vesicular & amygd. (olivine) basalt @ 30'	
										60.5-61.7: <u>Basalt</u> : dense, black, fairly hard, vesicular and amygd. FeOx alg fractures @ 10', 40', 50' & 60'. Lwr. contact @ 30'	
										61.7-81.7: <u>Rhyodacite tuff</u> : grey, tan & cream, slightly banded; hard; upper contact sheared for 10 cm @ 30';	
										61.7-65.2: lightly fractured @ 30', 40', 60' & 80'; 2-10 mm sms. qtz, calcite and calcite bx @ 30', 50' & parallel to core. Est. 2-3% sulphides as finely dissem. py. with sparse cpy; some colour banding in tufts @ 50'-60'.	
										65.2-68.3: Moderately fractured @ 40', 70' & 10' to core; estimate 2-3% sulph. with dissem. pyrite mainly.	
										66.5: 13 cm. CaCO ₃ with py. @ 80' to core.	
										66.7: 10 cm. " " @ 70' "	
										67.7: 10 cm. shearing parallel to core.	
										68.3-74.4: lightly fractured @ 30', 40', 50' & 70'; numerous thin calcite and quartz sms @ 30'-50'; pyrite dissem. and in thin sms; some arsenopyrite and few specks cpy; estimate 3% sulph.	
										68.6: 2 cm. CaCO ₃ w. py. @ 50'	
										69.3: 3 cm " + py. @ 10'	
										74.1: 2 cm " " @ 60'	
										73.7: thin bands py. & arsenopy. @ 40' to core.	
										74.4-78: lightly fractured @ 30', 50' & 80'; numerous thin calcite & qtz sms @ 30'-50'; pyrite dissem. & in thin seams; little arsenopy. - estimate 3% sulphides.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE: 80.9%
										<p>76.1: 2cm. shearing @ 50°.</p> <p>78-81.7: moderately fractured @ 30°, 40° & 80°; thin calcite & qtz sms @ 30° 50° & 70°; pyrite disseminated & in thin seams w. little arsenopyrite; Estimate 2-3% sulphides.</p> <p>79.0: shearing for 20 cm. @ 30° & 60°.</p> <p>81.7-99.7: <u>Rhyolite tuff with minor tuff breccia</u>; grey, tan & cream; ^{hard; epidote in places; Est. 2-3% sulphides, mainly pyrite.}</p> <p>81.7-86.9: moderately fractured @ 20°, 30°, 40°, 60° & parallel to core; 1-5 mm. qtz & calcite sms @ 30°, 40°, 50° & parallel to core; pyrite in thin bands & disseminations (80% of sulphides); Little arsenopyrite & chalcopyrite; Estimate 3% sulphides; Spotty epidote alteration.</p> <p>82.5-82.9: visible gold (under hand lens) with arsenopyrite.</p> <p>83.8: siliceous banding @ 30°.</p> <p>86.9-99.7: well fractured @ 10°, 30°, 60° & 70° - FeOx along fract.; epidote in small patches & bands along healed fractures. Pyrite in thin sms & dissem. with arsenopy.; Est 2-3% sulph.</p> <p>89.3-89.8: color banding @ 30°-40°</p> <p>90.5-90.8: " " @ 20°-50°</p> <p>95.5: color banding @ 30°</p> <p>89.8: 2cm. calcite with py. @ 50°</p> <p>90.6: 2cm " @ 25°</p> <p>99.7-107.0: <u>Rhyodacite and dacite tuff & tuff-breccia</u>: grey, green & black; breccia clasts to 1cm.; spotty epidote; fractured @ 20°, 30°, 40° & 60°; thin calcite seams @ 20°, 30°, 60° & parallel to core</p> <p>100.9: 1cm CaCO3 with py. & arsenopy. @ 40°</p> <p>104: 1cm. " with py. @ 30°</p>	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE: 80.9%
										<p>99.7-107.0: <u>Rhyodacite and dacite tuff and tuff-breccia:</u> see page 5 for description.</p> <p>102.4: color banding in rhyolite tuff @ 25°</p> <p>102.1-103.4: rhyolite tuff.</p> <p>102.1-103.6: Strongly fractured.</p> <p>102.4-102.6: sheared @ 40°</p> <p>103.4-103.6: calcite vein @ 30° with py., magnetite, arsenopyrite & little cpy; estimate 30% sulphides.</p> <p>103.6-104.8: estimate 15% sulphides - mainly pyrite with a little arsenopy & cpy.</p> <p>104.8-107.0: sulphide vein @ 50° - pyrite & magnetite with minor arsenopy. and cpy - some calcite & qtz. Est. 50% sulphides & magnetite.</p> <p><u>107.0 - End of Hole</u> Hole stopped due to squeezing ground. No water return</p>	

Project 20701 S. 100 Ridge Mines Location Ked 1309
 Hole No. 17 Page No. 1 of
 Coordinates: 9554.0 N 9795.7 E
 Collar elev. 1665 m. Bearing due East
 Inclination -60° Total Depth 135.9 m. 168

Contractor Lunayear Canada Inc.
 Date Started August 4, 1980
 Date Finished August 10, 1980
 Ref. to Claim Corner
 Logged by G. Nuel

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:	
										0-9.1 : <u>Overburden.</u>		
										9.1-11.2 : <u>Quartz Monzonite</u> : fine to med. grained, grey, slightly porphyritic. Lower contact @ 60°; lightly fractured @ 20, 70° & parallel to core; estimate 1% sulphides - dissem. fine pyrite 10.0: 5mm. qtz vein @ 30° - pyrite, arsenopyrite & little cpy.		
										11.2-13.4: <u>Altered Volcanics</u> : black to dark brown, dense, lightly fractured; silicified for 7cm. upper contact; lower contact @ 60°; estimate 3% sulphides mainly pyrite as dissem. & patches. 11.2: 7cm. qtz with py. @ 60° 11.8: 5mm. qtz with py, arsenopy, cpy. @ 60° 13.4: 1.2cm qtz with py. & cpy @ 30°.		
										13.4-14.9: <u>Quartz Monzonite</u> : med. grained, grey & pink; hard; lightly fractured @ 50° & parallel to core; estimate 1% total sulph. mainly pyrite, dissem. & in thin seams; FeOx along fractures.		
										14.9-16.1 <u>Aplite</u> : fine grained hard; white; lightly fractured @ 20, 30° & 70°; upper contact @ 20° somewhat sheared; lower contact at 20°; pyrite with little arsenopy & cpy. both dissem. & in thin seams; estimate 3% total sulphides. 16.1m: 1.2cm. calcite @ 30° & 70° w. little py., cpy, arsenopy.		
										16.1-25.8: <u>Dacite & andesite</u> : grey to black fairly hard; lightly fractured @ 20, 40, 50, 60° & parallel to core; FeOx ⁽⁻⁾ along fractures; numerous 1-5 mm. qtz & calcite stringers @ 30, 40, 60, 80° & parallel to core with py. ⁽⁻⁾ Pyrite dissem. & in thin sms; little cpy, arsenopy; Est. 3% sulph.		

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
											89.2%
										17.8: 5mm. CaCO ₃ w. arsenopy. @ 30° 18: 10cm. qtz monzonite @ 40°	
										25.8 - 26.6: <u>Quartz Monzonite</u> grey & pink, med. grained to porphyritic with feldspar phenocrysts.; upper contact @ 50°; lower @ 40°; 2-5 mm. qtz veinlets @ 50° & 70°; lightly fractured @ 50° & 60°; dissem. pyrite - also pyrite w. little arsenopy in qtz veinlets; Est 2% sulph. 26.2 m: 5mm. qtz veinlet @ 40° shows visible gold (hand lens).	
										26.6 - 46.6: <u>Andesite and Andesite Tuff & Breccia</u> : grey, green and brown; moderately hard; lightly fractured @ 20°, 30°, 50° & 70°; thin qtz and calcite sms @ 20°, 40°, 50° & parallel to core; pyrite, with arsenopy in places, as patches, seams, & dissemi. Estimate 3% sulphides.	
										34.7: 2cm. CaCO ₃ @ 40° with py, hem. & tuff-bx.	
										35.4: 3cm " @ 20° with py, hematite and tuff fragments.	
										36.9: 1.5cm. CaCO ₃ @ 40° - and. fragments; pyrite	
										37.8: 7mm. calcite @ 60°; pyrite.	
										39-39.8: 5mm. calcite parallel to core; pyrite.	
										43.1: 7cm. CaCO ₃ w. py. @ 50°.	
										43.4: 1cm. CaCO ₃ w. and. frags. & py @ 70°	
										44.1: 4cm. " bx @ 70° - py ⁽⁻⁾	
										45.0: 1cm. calcite bx. @ 40°.	
										46.6 - 56.4: <u>Andesite & dacite tuff and tuff breccia</u> : brown, greenish grey and tan; hard, moderately fractured @ 30°, 40°, 50°, 60° & 70° - Fe Ox along fractures. Pyrite in sms. & dissem.; minor arsenopy. mainly in sms. @ 40°. Est. 3% sulph.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
											89.2%
										52.7: 1cm arsenopy @ 20° & 70° with calcite.	
										54.5: 2cm. CaCO ₃ @ 30° with and. fragments & py ⁽⁺⁾	
										56.2: arsenopy. in ptchs. in dacitic tuft.	
										56.4 - 107.3 : <u>Rhyodacite and dacite tuft and tuft-breccia</u> : tan, grey and cream, hard; thin calcite and qtz sms @ 20°, 30°, 40° and parallel to core. with little pyrite and arsenopyrite; spotty epidote; flow and tuft banding textures in places; lightly fractured @ 20°, 30°, 60° & 70°; some FeO ₂ alg. fract.; Est. 3% sulph-py, arsenopy ⁽⁻⁾ .	
										59.9: 2 cm. calcite + qtz w. bl. sphal, py, little arsenopy & cpy @ 60°.	
										58.9: tuft banding @ 30°	
										62.0: 15 cm. talcose gouge @ 50°	
										62.2: 7 cm. calcite w. py. @ 60°	
										60.4-60.8: tuft banding @ 30°.	
										62.3: 6 cm. talcose gouge @ 50°.	
										62.9-63.4: 1 cm. calcite w. py ⁽⁺⁾ @ 10° to core.	
										67.5: 2 cm. qtz-calcite w. fine py. & arsenopy. @ 60°.	
										68.9: 1 cm. calcite w. py. @ 70°.	
										69.4: 3 cm. calcite w. py. & arsenopy. @ 20°	
										69.-69.2: tuft banding @ 50°-60°	
										70.9: 0.2 m. calcite-rhyolite bx w. py @ 70°.	
										73.8: 3 cm. calcite w. py. @ 50°	
										73: 10 cm. calcite + py - ribbon @ 30°	
										75.5: color banding @ 60°.	
										75.8: 2 cm qtz-calcite w. py. & black sphal @ 50°	
										76.1-76.4: calcite seams (2 mm to 3 cm) @ 50°	
										79.3-79.4: sheared @ 30° - FeO ₂ gouge.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE: 89.2%
										<p>82.9: 5 cm. qtz w. py⁽⁺⁾ @ 40°.</p> <p>84-84.4: calcite - rhyolite bx w. py @ 50°.</p> <p>87.2-90.2: heavily fract. parallel to core & at 30° - FeOx</p> <p>87.8: 3 mm qtz - arsenopyrite sm @ 10°.</p> <p>89.7: 1 cm. qtz w. py, little arsenopy @ 20°.</p> <p>92.6-93.3: heavily fract. @ 50° & parallel to core; FeOx</p> <p>94.5: 2 cm. FeOx gouge @ 55°.</p> <p>93.9-94.1: tuff banding @ 50°.</p> <p>94.6-94.9: lapilli tuff banding @ 30°.</p> <p>90.9: 2 cm. calcite @ 70°; py.</p> <p>90-94.8: fairly good arsenopyrite & pyrite; estimate 3-5% sulph.</p> <p>91.3-91.7: 5 mm. qtz w. arsenopy. & py. parallel to core.</p> <p>94.4: 1 cm. qtz with calcite, pyrite & arsenopyrite @ 60°.</p> <p>94.7: 2 cm. calcite w. py. @ 30°.</p> <p>95.0: shearing @ 70°; 2 cm. gouge</p> <p>95-96: tuff banding @ 30°.</p> <p>96.6-97.5: tuff breccia banding @ 35°.</p> <p>98-98.3: tuff bx banding @ 20°.</p> <p>99.3: tuff banding @ 30°.</p> <p>96.5: 1 cm. calcite w. py. @ 30°.</p> <p>96.8: 1 cm. calcite w. py. @ 20°.</p> <p>97.9: 5 mm. arsenopy. & py. with qtz @ 20°.</p> <p>98.5-99.0: calcite - rhyodacite bx @ 30° w. py.</p> <p>99-99.4: 2 cm. calcite @ 10° w. py. & arsenopy.</p> <p>99.7: talc-FeOx shears @ 30°; 1 cm calcite in shear.</p> <p>94.8-100.4: fairly good py.; fair arsenopyrite; Est. 3-4% sulphides.</p> <p>105: rhyodacite tuff - rhyodacite bx contact @ 40° - flow banding @ 35°.</p>	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE: 89.2%
										<p>101.6-101.8: sheared @ 30° and parallel to core.</p> <p>103.3-103.6: sheared @ 20°; talcose with calcite seams.</p> <p>100.4-100.9: calcite - rhyolite bx @ 30° w. py.</p> <p>102.2: 2 cm. calcite @ 70°.</p> <p>103.8: 1 cm. calcite @ 70°.</p> <p>104: 1 cm calcite @ 10°.</p> <p>104.2: 1 cm. calcite @ 30° & parallel to core w. py, arsenopy.</p> <p>104.6: 2 cm. calcite @ 10° w. py.</p> <p>105: 5 mm. calcite with arsenopy. across beds @ 30°.</p> <p>105.2: 5 cm. calcite with py. @ 40°.</p> <p>100.4-105.7: fair py, sparse arsenopy. Est. 3% sulphides.</p> <p>107.3-110: <u>Rhyolite tuff & tuff-breccia</u>; upper contact @ 20°; light grey to creamy, hard; clasts to 2-3 cm.; thin calcite stringers; pyrite dissem., thin stringers & small masses - estimate 3% sulphides; lightly fractured @ 30°, 40°, 50° & 60°; lower contact @ 30°; sheared & talcose.</p> <p>110-123.4: <u>Rhyodacite and Dacite tuff and tuff-breccia</u>; fairly hard; tan to grey; spotty epidote; flow banding (ash-flow) features; estimate 2-3% sulphides; pyrite in seams, patches and disseminations - little arsenopyrite; thin calcite sms (2-5 mm.) @ 20° & 60° with pyrite;</p> <p>110.3: flow banding @ 10°.</p> <p>110.7-111.1: shearing @ 10° & 30°; talc & chlorite.</p> <p>111.7-113.7: flow banding @ 20° in rhyolite tuff & tuff-bx.</p> <p>114.7-114.9: epidotized @ 10° w. py⁽⁺⁾</p> <p>115.2: talcose shearing @ 20°.</p> <p>114.6-117.3: tuff banding @ 20°</p>	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE: 89.2%
										<p>118-119.7: tuff-banding @ 30°-40°.</p> <p>115: 1.5 cm. calcite @ 10°.</p> <p>119: 3 mm. py. & arsenopyrite sms. @ 30°.</p> <p>119.1: 1 cm. calcite w. arsenopy. @ 60°.</p> <p>114.6-121.1: fair py; little arsenopy.</p> <p>121.8: 5 cm. calcite w. py⁽⁻⁾ @ 50°</p> <p>122.2-122.8: banding in tuff breccia @ 30°.</p> <p>123.4-126.8: <u>Rhyolite tuff & tuff-breccia</u>: white to grey, hard to cherty; lightly fractured @ 40° & 60°; upper contact @ 50° marked by 1 cm. calcite w. py.; pyrite dissem. & in thin sms., little arsenopy.; estimate 2% sulphides.</p> <p>126.8-135.9: <u>Rhyodacite tuff & tuff-breccia</u>: grey & tan; hard; light fracturing @ 30°, 40°, 70° & 80°; numerous calcite sms (2-10 mm. wide) @ 20° & 40°; pyrite with sparse arsenopy. as dissem., sms. & patches. Est. 2-3% sulphides.</p> <p>127.4: tuff banding @ 20°</p> <p>126.8-128.3: heavily fract. & sheared parallel to core.</p> <p>129.5: 1 cm calcite w. py. @ 30°</p> <p>130.4: 5 cm. sheared @ 30°.</p> <p>129.8-130: 1 cm. calcite w. pyrite @ 10°.</p> <p>131.3: 1 cm. calcite w. py⁽⁻⁾ @ 30°.</p> <p>129.7-130: py⁽⁺⁾ in bands @ 20°.</p> <p>126.4-131.8: fair pyrite; little arsenopyrite; estimate 2-3% sulphides.</p> <p>133.2-135.9: core moderately fract. parallel to core & at 30° and 50°.</p> <p>132.2: 1 cm calcite @ 20°; py⁽⁻⁾</p> <p>132.6: 6 cm calcite @ 20°; little py.</p> <p>135.9 END OF HOLE.</p>	

Project General Silver Ridge Loop Port Que Ferry
 Hole No. 18 Page No. 1 of 8
 Coordinates: 9526.5 N. 9769.7 E
 Collor elev. 1672 m. Bearing East
 Inclination -77° 30' Total Depth 206.3 m.

Contract Lamayer Canada, Inc.
 Date Started August 11, 1980
 Date Finished August 20, 1980
 Ref. to Claim Corner _____
 Logged by E. A. Noel

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE: 86.1%
										0.-6.1: <u>Overburden.</u>	
										6.1-23.5: <u>Andesite and Dacite flows & tufts: grey to black; porphyritic (feldspar phenocrysts); fairly hard; silicified in places; heavily fractured @ 10', 20', 40', 50' & parallel to core. FeOx along fractures; spotty epidote; estimate 3% sulphides - pyrite disseminated & along fractures; lower contact @ 60'</u>	
										10.0: shearing with 1cm. talcose gouge @ 70'	
										10.4: 3 cm. talcose gouge @ 70'	
										7.0: calcite sms. @ 40' & 70' w. py ⁽⁺⁾	
										7.3: 3 mm. pyrite stringers @ 20', 40' & 60'	
										7.5-7.9: silicified clastic tuft w. pyrite; est. 5% sulph; contacts @ 40'	
										8.9: 1 cm. quartz-carbonate w. py. @ 30'	
										10.9-11.1: silicified in bands @ 75'	
										10.1-10.3: strongly leached @ 30'	
										11.3-11.8: 3-10 mm. calcite sms. @ 10' to core; py ⁽⁺⁾	
										12.1-12.6: 1 cm. calcite w. py ⁽⁺⁾ @ 10'; few specks arsenopy.	
										17.2-17.4: narrow shears @ 40'	
										17.8-18.4: talcose & chloritic gouge @ 70'	
										18.4-18.7: calcite-dacite breccia @ 60'; calcite with some qtz sms (0.5-1 cm) @ 60' & parallel to core; py ⁽⁺⁾	
										22.9: 1 cm. CaCO ₃ w. py @ 50'	
										23.5: 0.5 m. gouge @ contact (0.1m. in v. & 0.4 m. in intrusive)	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
											86.1
										<p>23.5 - 50.0 : <u>Quartz Monzonite</u>: grey-green and pink; medium to coarse grained; generally lightly fractured @ 20', 50' & 60' to core; strongly leached along faults with red hematite altⁿ. Pyrite dissem. & in thin seams @ 30' - Estimate 2% sulphides Upper contact @ 60'.</p> <p>25.7: 3mm. seam arsenopy. @ 20' & 30'.</p> <p>28.4: 6cm shearing @ 40'; clayey gouge</p> <p>30.6 - 30.8: qtz vein @ 30' w. pyrite.</p> <p>30.8 - 30.9: fault gouge @ 30'</p> <p>31.4 - 31.6: " " @ 60'</p> <p>33.6: 3mm. qtz with arsenopyrite @ 30'.</p> <p>36 - 41.4: strongly fractured @ 30', 50' & parallel to core.</p> <p>37.0: shearing parallel to core; clayey gouge.</p> <p>36 - 40: 2-3 mm qtz veinlets @ 70' with py, arsenopy. & little cpy.</p> <p>42.4 - 42.6: Fault gouge @ 50'.</p> <p>44.1: shearing @ 40' with 1 cm. gouge.</p> <p>45.1: shearing @ 50'; 5 mm chlor. gouge.</p> <p>45.5 - 45.7: " @ 50'; clay gouge & sand.</p> <p>41.8: 1 cm. calcite @ 50'.</p> <p>46 - 47.8: strong fracturing @ 10' & 50'.</p> <p>47.8 - 50.0: } Fault - with heavy clay gouge from qtz monzonite. upper contact @ 30'; lower contact @ 60'.</p> <p>50.0 - 50.9: <u>Basalt</u>: finely vesicular; hard, FeOx along fractures</p> <p>50.9 - 54.0: <u>Quartz Monzonite</u>: as above; heavily fractured @ 10', 20', 60' & 70'; FeOx along fractures; heavily sheared lower contact @ 10' for 0.1 m.</p>	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
											86.1%
										54.0-54.7: <u>Basalt</u> : black, finely vesicular, hard; lightly fractured @ 60° & parallel to core; FeOx ⁽⁻⁾ along fract.; upper contact @ 10°; lower contact @ 30° to core.	
										54.7-63.0: <u>Quartz Monzonite</u> : as above; medium grained to porphyritic pink and grey; strongly leached in places; very heavily fractured @ 70° and parallel to the core; FeOx along fractures; upper contact 0.2 m. gouge.	
										55.8-56.6: 1 cm calcite with pyrite ⁽⁺⁾ , arsenopy. ⁽⁺⁾ & cpy parallel to core.	
										58.5-60: highly sheared parallel to core and at 30°; somewhat silicified with py ⁽⁺⁾ & arsenopy. dissem. & as sms.	
										60-63: heavily sheared @ 30° & 50° - clayey & gougy.	
										62.3-63: FeOx alg fract.	
										63-66: <u>Basalt</u> : black, hard, fine grained, amygdaloidal. - upper and lower contacts @ 10°.	
										66-81.7: <u>Rhyodacite tuff & tuff-breccia</u> : grey to tan; hard; siliceous; pyrite with a little arsenopyrite as sms & disseminations; Estimate 3% sulphides; thin calcite stringers @ 30° & 50°	
										66-68: heavily sheared with FeOx and clay gouge @ 20° & parallel to core	
										68.9-69.2: tuff banding @ 80°-90° to core.	
										69.4-69.7: 1 cm. talose shearing @ 10° to 20° to core	
										70.5-73.1: strongly fractured @ 30°, 40°, 60° & 80° with FeOx alg fractures.	
										74-78.7: considerable sulphides (Estimate 5%): pyrite, sphalerite, cpy, arsenopy.	
										76.9-77.0: silicified @ 50° w. py, cpy ⁽⁻⁾	
										77.1-77.4: carbonate sms & alteration @ 30° with py ⁽⁺⁾ , ZnS ⁽⁺⁾ , cpy ⁽⁻⁾ , arsenopy. ⁽⁻⁾	
										77.9: 4 cm. calcite bands w. py @ 40°; little cpy.	
										78.5: 1 cm. calcite with py @ 50°	
										81.0: 1 cm calcite with py, little arsenopy. cpy alg core.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS	AVE. CORE REC'Y/HOLE
											86.1%
										81.1: 1 cm. CaCO ₃ with py. @ 40° to core.	
										81.4: 5 mm. sm. of pyrite @ 30°.	
										81.7-85.1: <u>Dacite & dacite tuff & tuff-breccia</u> : grey-green to black; fairly hard; chlorite & spotty epidote alteration; light fracturing @ 30°, 60° & 80° Pyrite with a little arsenopyrite & cpy in sms & dissem.; estimate 3% sulphides.	
										81.9-82.5: 5 mm. py & arsenopy. w. qtz & calcite @ 10° to core	
										84.8: 5 mm. calcite & qtz w. py., arsenopy., & a little cpy @ 30°.	
										85.1-119.6: <u>Rhyodacite tuff</u> : grey to cream & tan; hard; lightly fractured @ 20°, 30°, 50° & 60°; FeOx ⁽⁻⁾ along fractures; considerable py with a little arsenopy. & cpy.; estimate 3-5% sulphides. both disseminated & as thin veinlets.	
										85.1-85.8: wavy banding parallel to the core.	
										86.7: 2 cm. CaCO ₃ with py. @ 80°.	
										87.0: 1 cm. calcite @ 30°.	
										88.1: 1 cm. arsenopy. with calcite @ 60°.	
										89.8: 2 cm. calcite with py. @ 70°.	
										90.1: 1 cm. calcite with py. @ 20°.	
										91.0: 0.1 m. siliceous band @ 80° to core	
										92.3-92.4: tuff banding @ 50°.	
										92.4: talc-chlorite shear @ 50°.	
										92.8-93.0: talcose shearing @ 40°.	
										93.4: 2 cm. qtz sm. @ 70° with py ⁽⁻⁾	
										94.5-94.7: rhyodacite tuff-bx band @ 60°	
										95.2: 2 cm. calcite-rhyolite breccia band @ 50°.	
										96.7-97.0: color banding @ 40°.	
										95.6-101.2: considerable pyrite; estimate >5% sulphides.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS	AVE. CORE REC'Y/HOLE: 86.1%
										<p>102.8 - 103.3: tuff banding @ 30°.</p> <p>106.3 - 106.4: " " @ 40°.</p> <p>101.8: 6 cm. quartz with py. @ 50°.</p> <p>106.7 - 110: dacite breccia; numerous calcite sms.; py. dissem. & as seams. { Estimate 3% sulphides.</p> <p>108.8 - 110: considerable epidote alteration.</p> <p>108.2: 2 cm. calcite @ 30°</p> <p>109.5: 1 cm. CaCO₃ @ 50°.</p> <p>111.8 - 111.9: talcose shearing parallel to core.</p> <p>110.0 - 117.7: light grey-green dacitic tuff with green & black andesite; epidote alteration; talcose fractures; pyrite dissem. & in sms Estimate 3-4% sulphides.</p> <p>116.8: Shearing @ 40°-50°; talcose & chloritic.</p> <p>117.7 - 119.6: light grey and tan rhyodac. tuff; very broken @ 50°, 60° & parallel to core; disseminated py.</p> <p>118.9 - 119.6: mottled pink K-feldspar alteration; tuff banding @ 50°.</p> <p>119.6 - 127.0: <u>Dacite, dacitic tuff & tuff-bx</u>: light grey-green to dark green; fairly soft; chlorite alteration particularly along fractures; spotty epidote; fairly well fractured with some shearing, pyrite disseminated and in sms with a little cpy & arseno- pyrite; estimate 3% sulphides</p> <p>119.6 - 124.3: strong fracturing @ 30°, 60° & parallel to core.</p> <p>119.6 - 120.1: tuff banding @ 50°.</p> <p>121.0 - 121.8: magnetite dissem. & in small masses.</p> <p>124.3 - 127.0: weakly fractured @ 60°.</p> <p>124.3 - 126.2: dacite breccia; vague banding @ 50°; magnetite; considerable epidote & brown garnet alteration.</p>	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS	AVE. CORE REC'Y/HOLE
											86.1%
										125.8: 8 cm. calcite with py ⁽⁻⁾ @ 50°	
										126.7-126.9: calcite bx @ 50°; py ⁽⁺⁾ with yellow brown garnet & epidote	
										127.0-176.3: <u>Rhyodacite tuff</u> ; light grey-green; grey, cream & tan; hard; spotty epidote; pyrite as dissem. & thin seams; little cpy & arsenopy. in places; estimate 3% sulphides.	
										127-128: tuff banding @ 50°-60°	
										127.7-128.7: weak fract'g. @ 50°.	
										129.2-138.0: strongly fractured @ 10°, 40° & 50°.	
										128.9-129.3: tuff banding @ 50°-60°.	
										132.3-133.5: K-feldspar alteration along fract. & in patches & bands @ 70° parallel to core.	
										132.6-132.8: little dissem. MoS ₂	
										138-151: weakly fractured @ 30°, 50°, 60° & 70°	
										138-139: tuff banding @ 50°-60°.	
										139-141: rhyodac. tuff-breccia; considerable epidote.	
										138-141: K-feldspar alteration in bands @ 40° & in patches.	
										140.9: shearing @ 50°.	
										142.7-143.0: shearing @ 30° & 50°; talcose & chloritic.	
										141.7-142.5: tuffaceous banding @ 20°.	
										143.9-144.1: tuff banding @ 30°-40°.	
										144.1: 6 cm chert band @ 40°.	
										144.2-146.1: rhyodacite tuff-bx; pale grey-green with dark altered clasts; spotty epidote.	
										144.5-144.7: talcose shearing @ 35°.	
										144.5-150.5: core v. broken @ 10° & 30°.	
										148.1: shearing @ 20°; FeOx & calcite.	
										148.4-149.2: tuff-bx w. dark clasts.	
										147.19 tuff banding @ 40°.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS	AVE. CORE REC'Y/NOLE
											86.1%
										<p>149.2 - 149.5: tuff banding @ 35°.</p> <p>149.7 - 151.4: grey-white rhyolite tuff & tuff-bx with pyrite, little arsenopyrite & cpy.</p> <p>151.4 - 152.5: gy-green rhyodac. tuff-bx; epidote; tuff banding @ 35°.</p> <p>154.4 - 156.6: dacite tuff-bx; dk gy tuff banding @ 35°.</p> <p>156.9 - 159.9: core v. broken; fractures @ 10°, 30° & 50°; FeOx alg. fractures.</p> <p>158.3 - 158.6: tuff banding @ 20°.</p> <p>159.1 - 159.5: rhyodacite porphyry w. py; feldspar phenocrysts.</p> <p>159.5 - 160.8: calcite vein @ 20° to core; py; includes bands of rhyodac. bx.</p> <p>160.9 - 161.2: sheared with talcose gouge @ 30° to core.</p> <p>160.8 - 176.3: rhyodacite bx; clasts to 5 cm in grey ash matrix; most of sulphides in matrix.</p> <p>161.3 - 161.8: broken & sheared; talcose; fractures parallel to core.</p> <p>161.8 - 165.5: core fairly broken @ 30° & 60°; fine pyrite in matrix & clasts.</p> <p>165.6: 1 cm. talcose shear @ 30°.</p> <p>167.7 - 168.2: heavily sheared & talcose @ 10° & 30°.</p> <p>169 - 171.3: sheared & leached parallel to core & @ 30°; talcose.</p> <p>166.1 - 168.2: pyrite bands @ 40°.</p> <p>169 - 169.7: pyrite & arsenopyrite in bands @ 60°.</p> <p>171.3 - 176.1: core very broken & sheared @ 10° & 40°.</p>	
										<p>176.3 - 183.0: <u>Rhyodacite - calcite Breccia</u>: grey, tan & white; rhyodacite tuff veined by considerable white calcite; fairly broken @ 30°, 50° & 60°; fine pyrite in dissem. & patches with a little cpy, and arsenopyrite.</p>	
										<p>183.0 - 206.3: <u>Rhyodacite tuff and tuff-breccia</u>; tan and grey, fairly hard; numerous thin calcite stringers @ 10°, 40°, 50°, 80° & parallel to core; upper contact @ 50°; pyrite with a little cpy, and arsenopyrite as dissem. and thin seams at random orientation; estimate 3% sulphides.</p>	
										<p>183 - 187.5: core fairly broken @ 20°, 30° & 60°.</p> <p>183.2: shearing @ 30°; talcose gouge (5mm.)</p>	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY

COMMENTS:

AVE. CORE REC'Y/HOLE:
86.1%

183.6: talcose shearing @ 80° (5mm)
 185: " " @ 30° (5mm)
 187.2-193.6: moderate fracturing @ 10°, 30°, 50°, 60° & 70°; numerous thin calcite sms. < 0.5 cm. parallel to core & @ 30°, 60° & 80°.
 187.6: 1 cm calcite w. py. @ 30°
 188.1: 1 cm. veins calcite with py. @ 50° & 70°.
 189.1: 1 cm. calcite @ 70°.
 191.8: 1 cm. calcite @ 40°.
 193.6-198.7: lightly fractured @ 30°, 50° & 70°; thin (5mm) calcite stringers @ 30°, 50°, 60° & parallel to core.
 193.8: 2 cm. talcose gouge @ 70°.
 193.9: 1 cm. calcite with py. @ 30°
 194.3: 1 cm. qtz + calcite with py. @ 30°.
 195.9: 1 cm. calcite with py. @ 20°.
 196.1: " " " " @ 70°.
 196.5: 3 cm. calcite with py. @ 60°.
 198.5: 3 cm. calcite with py. @ 40°.
 203.9-204.0: tuff banding @ 60°
 198.7-206.3: core fairly well fractured @ 20°, 30°, 50°, 60° & 70°; few calcite seams @ 20°, 50° & 70°.
 206.3 - END OF HOLE -

Proj Lang Silver-Ridge Mines Loc Red Pine Province
 Hole No. 18 Page No. 1 of 5
 Coordinates: 95 26.5 N 97 69.7 E
 Collar elev. 1672 m. Bearing East
 Inclination -77° 30' Total Depth 206.3 m.

Company Lunenburg Canada Inc.
 Date Started August 11, 1980
 Date Finished August
 Ref. to Claim Corner
 Logged by G. A. Noel

Depth Interval m.		CORE								Depth Interval		SLUDGE					
From	To	Sample No.	Meters Recovery	% Rec.	Au Ag ASSAY				L x A	From	To	Sample No.	Lbs. Rec.	% Rec.	ASSAY		
					oz/ft.	oz/ft.											
6.1	8.0	360	1.51	79	.006												
8.0	10.0	361	1.78	89	Tr.												
10.0	12.0	362	1.87	78	.008												
12.0	14.0	363	1.71	86	Tr.												
14.0	16.0	364	1.68	84	.005												
16.0	18.0	365	1.61	81	.026												
18.0	20.0	366	1.82	91	.010												
20.0	22.0	367	1.88	94	.005												
22.0	23.5	368	1.18	79	.010												
23.5	25.0	369	1.24	82	.010												
25.0	27.0	370	2.0	100	.010												
27.0	29.0	371	1.86	93	.069					.1380							
29.0	31.0	372	1.76	88	.177					.3540							
31.0	33.0	373	1.66	83	.023					.0460							
33.0	35.0	374	1.42	71	.012					.0240							
35.0	37.0	375	1.26	63	.025					.0500							
37.0	39.0	376	1.26	63	.016					.0320							
39.0	41.0	377	2.2	73	.005					.0100							
41.0	43.0	378	1.7	85	.006					.0120							
43.0	45.0	379	1.73	86	.005					.0100							
45.0	47.8	380	2.04	73	.036					.1008							
47.8	50.0	381	1.56	71	.019					.0419							

8156

Depth Interval m.		CORE								Depth Interval		SLUDGE							
		Sample No.	Inches Rec.	% Rec.	ASSAY				L x B			Sample No.	Lbs. Rec.	% Rec.	ASSAY				
From	To				Au oz/t	Ag oz/t													
50.9	54.0	382	0.9	29	.033					.1023									
54.7	57.0	383	1.45	63	.658					1.5130									
57.0	58.5	384	1.16	77	.024					.0360									
58.5	60.0	385	1.16	77	.043					.0645									
60.0	63.0	386	2.67	89	.013					.0390									
66.0	68.0	387	1.79	90	.027					.0540									
68.0	69.5	388	1.27	84	.009					.0135									
69.5	71.5	389	1.71	85	.008					.0160									
71.5	73.0	390	1.24	83	.006					.0090									
73.0	75.0	391	1.99	99	.010					.0200									
75.0	76.5	392	1.70	85	.006					.0090									
76.5	78.0	393	1.66	110	.019					.1185									
78.0	79.5	394	1.26	84	.057					.0855									
79.5	81.0	395	1.26	84	.028					.0420									
81.0	82.5	396	1.44	96	.093					.1395									
82.5	84.0	397	1.5	100	.033					.0495									
84.0	85.5	398	1.5	100	.012					.0180									
85.5	87.0	399	1.5	100	.005					.0075									
87.0	88.5	400	1.5	100	TR					0									
88.5	90.0	401	1.5	100	.007					.0105									
90.0	91.5	402	1.5	100	.123					.1845									
91.5	93.0	403	1.5	100	.005					.0075									
93.0	94.5	404	1.48	99	.011					.0165									
94.5	96.0	405	1.47	98	.083					.1245									

Proj C₁ L5¹ Rid. Station Red Van P-est.
 Hole No. 19 Page No. 1 of 7
 Coordinates: 9581.6 N 9766.3 E
 Collar elev. 1668 m. Bearing East
 Inclination -85° Total Depth 171.2 metres

Operator Lumax Canada Inc.
 Date Started August 20, 1980
 Date Finished August 26, 1980
 Ref. to Claim Corner _____
 Logged by G.A. Neal

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
											86.1%
										0 - 11.9 : <u>Casing</u> (partly overburden).	
										11.9 - 99.7 : <u>Quartz monzonite</u> : med. grained grey, to light green, pink and tan; porphyritic (feldspar phenos.); heavily sheared and leached along contacts; dissem. py & few py. sms., little cpy; few specks molybdenite; few thin calcite & quartz stringers; estimate 2% sulphides.	
										11.9 - 18.1: light fracturing @ 30°, 40°, 50°, 70° & 10°; FeOx along fractures.	
										13.1 - 13.5: shearing @ 10° & 30°; FeOx gouge.	
										13.5 - 14: rhyodacite tuft @ 30°; calcite veinlets to 2 cm. @ 10°.	
										14.4: 5mm. gouge @ 70°.	
										14.8 - 19.1: altered dacite; dk. brown to black; finely soft; contacts @ 60°; FeOx along fractures; calcite stringers ca 30°; pyrite disseminated & in stringers; little cpy & ocal. speck MoS ₂ . Estimate 3% sulphides.	
										18.1 - 23.4: lightly fractured @ 40°, 50° & 60°; FeOx ⁽⁻⁾ along fractures.	
										18.8 - 19.0: shearing @ 70° & parallel to core; 5mm. gouge seams.	
										20.5: 3 cm clay gouge @ 70° along Qtz monz. - Volc. contact	
										23.1 - 23.3: thin shears @ 10°; FeOx ⁽⁻⁾	
										20.5 - 22.2: dk br. to bl. altered dacite; contacts @ 70°; upper contact sheared, lower contact sharp; 1 cm. Qtz & calcite seams @ 30°; fair pyrite w. little arsenopyrite. Est. 3-4% sulphides	
										23.4 - 28.9: lightly fractured @ 20°, 30°, 50°, 60° & 80°; little FeOx	
										25.7: 3 cm. clay gouge @ 30° & 70°.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
											86.1%
										28.9-34.5: lightly fractured @ 50°, 60° & 70°.	
										31.5-32.0: shearing parallel to core; clay gouge.	
										34-34.5: shearing @ 20°; gougy; 4 x 1-cm. qtz-calcite seams w. py, arsenopyrite; also dissem. arsenopyrite.	
										34.5-40.7: very strongly leached & sheared @ 30° & parallel to core; core soft & gougy; highly altered qtz monzonite; talc & chlorite seams; 5mm. qtz & calcite seams @ 30° & 60° w. py & arsenopy.	
										40.7-42.1: fairly strongly leached & sheared @ 60° & 40°	
										42.1-46.1: light fracturing @ 40°, 50° & 60°.	
										42.5: sheared with 1cm. gouge @ 40°.	
										45.2: " " " " @ 70°.	
										42.4: 5mm. qtz w. py, cpy @ 60°.	
										42.7: 6cm. silicified seam w. py. @ 50°	
										44.8: 1cm. qtz w. py, cpy @ 40°.	
										46.1-51.3: light fracturing @ 10°, 50° & 60°.	
										46.9: 4cm. gouge @ 70°	
										47.7: 2cm " @ 60°.	
										49.7-50.4: sheared @ 40° - gougy & leached.	
										50.6: 9cm. gouge & shearing @ 40°.	
										46.7: 5mm. qtz w. py, arsenopy, & cpy. @ 50°	
										47.0: 2mm. qtz " " " @ 40°.	
										48.6: 3mm. qtz w. py, cpy, arsenopy @ 50°.	
										51.3-51.4: clay gouge @ 50°	
										52.8-53.1: " " @ 60°.	
										53.7-53.8: " " @ 60°.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE: 86.1%
										52.3: 1 cm. qtz w. py. @ 60°	
										53.1: 5 cm. qtz & calcite w. py. @ 60°	
										53.7-53.8: arsenopyrite ⁽⁺⁾ with cpy. & py.	
										54.5: 1 cm. qtz with py., arsenopyrite, cpy @ 40°	
										56.4-62: light fracturing @ 30°, 40°, 70° & 80°; few thin qtz stringers w. py., little arsenopy @ 30°, 40°, 50°	
										57.6-60.9: heavily sheared & leached; gougy @ 10°, 30° & 50°	
										62-67.1: lightly fractured @ 30°, 50°, 60° & 70°; 5-10 mm. qtz. & calcite seams @ 30°, 40°, 50° & 80° w. py. & little cpy.	
										62.9: 5 mm. clay gouge @ 50°	
										67.1-72.2: light fracturing @ 20°, 30°, 50°, 60° & 70°	
										67.4: 5 cm. calcite @ 70°; py.	
										68.6: 5 mm. calcite w. py. @ 30°.	
										69.0: " " " @ 70°	
										69.2: 5 mm. qtz. w. py. @ 50°	
										69.3: 2 x 5 mm. qtz-calcite w. py. @ 30°.	
										69.6: 1 cm. qtz w. py., cpy. @ 40°; 3 cm. calcite breccia w. py. @ 40°	
										70.1: 1 cm. gouge @ 60°	
										71.7: 5 mm. qtz. w. py., cpy @ 30°	
										72.7-77.8: lightly fractured @ 30°, 60° & 70°.	
										72.4: shearing @ 20° & alg core.	
										73.1-73.2: fault gouge @ 70°.	
										77.5-77.7: sheared & gougy @ 60°	
										73.7: 5 mm. qtz w. py. & cpy. @ 30°	
										74: 1 cm. qtz. " " " @ 30°.	
										77.8-83.: fairly well fractured @ 10°, 30°, 40° & 60°.	
										78.1: 2 cm. clay gouge @ 20°	
										78.3: 1 cm. clay gouge @ 30°; 1 cm. qtz w. py., cpy @ 20°	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
											86.1%
										80-80.2: clay gouge @ 40'	
										80.3: 3cm. " " @ 40'	
										81.2: 2cm. " " @ 20'	
										81.4: 1cm. " " @ 30'	
										78.5: 1cm. qtz. w. py. & cpy @ 20'	
										81.1-81.4: rhyolite bx @ 40' w. dissem. py.	
										82.2: 1cm. qtz. w. py, little arsenopy. @ 30'	
										82.5: 1cm. qtz w. py. & cpy. @ 20'	
										82.8: 1cm. qtz w. py. & cpy. parallel to core.	
										83-88: moderate fracturing @ 30, 40, 60, 70 & 80'	
										84.3-84.4: clay gouge @ 30'	
										84.4-85.1: shearing @ 30, 70' & parallel to core.	
										85.6-86.2: sheared @ 30' - clay gouge.	
										87.3: 6 cm. clay gouge @ 40'	
										83.9: 5mm. qtz w. py, cpy @ 10'	
										87.1: 5mm. qtz w. py. @ 10' to core.	
										88.6-89.8: shearing @ 30' & 60'; clay gouge.	
										91.8-93.0: heavily sheared @ 60' & parallel to core.	
										88-93.8: core very broken @ 30, 60' & parallel to core.	
										93.8-98.7: moderately fractured @ 20, 30, 40, 50, 60 & 70'	
										94.6: 2 cm. gouge @ 40'	
										96.6: 5 mm py & cpy in qtz @ 20'	
										97.1: 1 cm. qtz w. calcite & py, cpy & arsenopy. @ 20'	
										99.7-100.8: Rhyolite-calcite breccia; grey, fairly hard; calcite veinlets; upper contact @ 40'; lower contact @ 50'; pyrite dissem. mainly through rhyolite matrix; estimate 3% sulphides.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
											86.1%
										100.8 - 156.2: Rhyodacite tuff & tuff breccia; grey & tan; fairly hard; calcite wisps throughout; pyrite in seams & disseminated with arsenopy. & cpy in places; estimate 3% sulphides.	
										98.7 - 103.1: core very broken @ 30, 60 & parallel to core.	
										99.7 - 99.9: clay gouge @ 40 @ contact between qtz monz. & rhyodac. tuff.	
										100.5: 1 cm clay gouge @ 40	
										101 - 101.1: clay gouge @ 40.	
										102 - 103.6: shearing with clay gouge @ 50 & parallel to core.	
										101.5 - 101.8: 1 cm. qtz w. py., cpy. & arsenopy. @ 30 & parallel to core.	
										103.1 - 108.3: core very broken; fractured @ 50 & parallel to core.	
										104.5: 1 cm. clay gouge @ 20.	
										106.3: 5mm. " " parallel to core	
										105: 8 cm. calcite @ 40.	
										103.9: tuff banding @ 20.	
										108.3 - 113.4: core very broken @ 20, 30, 50 & 60.	
										110.4 - 110.8: sheared with clay gouge.	
										111.5 - 111.9: shearing parallel to core & @ 40; clay gouge.	
										112.9 - 117: " " " & @ 60; " "	
										110.3: 2 cm. calcite with py. @ 60.	
										110.4 - 111.2: good arsenopyrite mineralization.	
										112.4 - 113.4: " " "	
										113.4 - 120.5: strongly sheared & leached.	
										117.4 - 117.6: sheared & gougy @ 50	
										118.1 - 119.1: sheared; clay gouge @ 50	
										119.9 - 120.1: " " @ 50	
										120.3: sheared; clay gouge @ 40	
										117.6: tuff banding @ 55	
										117.9 - 118: numerous 1 cm calcite seams @ 40.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
											86.1%
										119.3-120.9: calcite - rhyodacite breccia	
										119.5: tuft banding @ 30°	
										120.5-126.8: light fracturing @ 30°, 40° & 60°, except where sheared.	
										123.2-126.5: heavily sheared & leached @ 20°, 30°, & 40°; gougy in places.	
										120.9-123.2: olivine basalt (Ecliza); contacts @ 30°; chilled margins; shearing in older volcanics; few specks pyrite.	
										124-124.2: calcite patches & irregular stringers to 1 cm. in width.	
										125.9-126.8: " " "	
										126.8-132.1: core fairly well broken @ 20°, 40°, 50°, 60° & parallel to core.	
										130.3-131.4: gougy with shearing @ 30° & parallel to core.	
										127.5-127.8: 1 cm. calcite w. py., cpy, & arsenopy. parallel to core.	
										127.8-128.5: calcite - rhyodacite bx with good arsenopy. mineralization.	
										129.6: 5 cm. calcite w. py. @ 50°.	
										129.9-132: rhyodacite - calcite bx. with py.	
										132.2-133.2: sheared & gougy @ 30°	
										132.1-137.7: weakly fractured @ 40°, 50°, 60° & 70°.	
										133.6-133.8: sheared & gougy @ 50°.	
										135.9-136.2: " " @ 20°	
										136.2-137.7: calcite seams (3-10 mms.) @ 30°, 40°, 50° & 70°.	
										137.7-142: fairly well fractured @ 20°, 30°, 50° & 60°.	
										139.1: sheared & gougy @ 30°; 2 cm. gouge.	
										139.7: 5 cm. clay gouge @ 30°	
										141.7-141.9: sheared w. clay gouge @ 40°.	
										138.1: 1 cm. calcite @ 10° w. py.	
										138.6: 1 cm. calcite w. py. @ 40°.	
										139.6-139.7: calcite w. py. @ 60°.	
										140.5: 2 cm calcite sm. w. py. @ 40°	
										141-142: 5-10 mm calcite sms. @ 20°	1111

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE: 86.1%
										<p>142.1-147: fairly broken @ 30, 50, 80° & parallel to core. 142.5: 5mm calcite & qtz @ 50° 142.9-143: myriad of calcite stringers w. py. 143-143.1: tuff & tuff-bx banding @ 50° 143.5-143.6: 5mm - 1cm. calcite sms. @ 30° 143.9-144.1: rhyodacite tuff-bx with good arsenopy. in bands @ 10°; 1cm. calcite seams @ 30° & 50° 144.7-145.1: tuff-breccia banding @ 60° to core. 145.4: 1cm. talcose & chloritic gouge @ 50° 145.4-145.5: tuff banding @ 40° 146.9: tuff banding @ 40° 148.4-148.7; 149.8-150.3 & 151-151.4: core very broken. 147-149.2: 0.3 - 1.0 cm. calcite stringers @ 30°, 40°, 50°, 70° & parallel to core 149.9: 4 cm. calcite @ 50° 149.2-149.4: talcose shearing @ 40° 151: 1 cm. calcite w. py. @ 20° 152-157.8: core lightly fractured @ 40°, 50°, 60° & 70° 154.2-156.2: heavily sheared & gougy @ 30° & 40° 152.7-156.2: rhyodacite breccia & tuff-bx; tan & gray; strongly leached. 156.2-171.2: <u>Dacite & andesite tuff & breccia</u>: dk gray & brown to dark green; spotty epidote in places; pyrite dissem. & in seams; estimate 3% sulphides; includes some bands rhyodacite. 152.7: 6 cm. calcite w. py @ 60° 153.5-154.5: 2mm - 2 cm. calcite seams @ 60° & parallel to core. 156.4: 1.5 cm. qtz w. py. & cpy. @ 50° 159.7-162.5: core well fractured @ 20°, 50°, & 60° 160.5-160.6: sheared @ 50° 162-162.1: " @ 50° & 20° 163.4-169: lightly fractured @ 20°, 30°, 40°, 50° & 60° 165.4: 2 cm. calcite w. py., arsenopy. & sphalerite @ 30° 168.5: 1.5 cm. qtz & calcite @ 70° 169.7: 3 cm. calcite @ 50° 169.8-170.5: 0.3-1.5 cm. calcite seams @ 20°, 60°, 70° & parallel to core. 171.2: END OF HOLE.</p>	

Depth Interval		CORE							Depth Interval		SLUDGE							
From	To	Sample No.	Inches Rec.	% Rec.	ASSAY				From	To	Sample No.	Lbs. Rec.	% Rec.	ASSAY				
141.0	145.0	535	.83	83	TR													
145.0	147.0	6	1.76	88	006													
147.0	149.0	7	1.88	94	005													
149.0	151.0	8	1.98	94	005													
151.0	153.0	9	1.80	90	TR													
153.0	154.5	540	1.23	82	TR													
154.5	156.2	1	1.50	100	TR													
156.2	158.0	2	1.80	100	007													
158.0	160.0	3	2.00	100	005													
160.0	162.0	4	1.52	76	005													
162.0	164.0	5	1.94	97	TR													
164.0	166.0	6	1.90	95	TR													
166.0	168.0	7	1.86	93	TR													
168.0	170.0	8	2.00	100	TR													
170.0	171.2	549	1.20	100	TR													
					Average Recovery = 86.70													

Hole No. 20 Page No. 1 of 8

Date Started August 27, 1980

Coordinates: 9706.5 N 9834.2 E

Date Finished August 31, 1980

Collar elev. 1595 m. Bearing East

Ref. to Claim Corner

Inclination -65° Total Depth 151.5 metres.

Logged by G. A. Noel

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
											98.3%
										0-6.1: <u>CASING</u>	
										6.1-32.3: <u>Porphyritic Quartz Monzonite</u> : grey to greenish grey; feldspar phenocrysts; fairly hard; pyrite dissem. & algt fract ² ; arsenopyrite in veinlets & disseminated; little cpy.	
										6.1-12.2: lightly fractured @ 40°, 50°, 80° & parallel to core; FeOx.	
										6.5-6.6: arsenopyrite in seams & disseminations.	
										8.1: 3 mm. seam arsenopyrite with sphalerite, cpy. & py. @ 70°.	
										8.3: 1 cm. qtz-calcite with sphalerite, py & cpy. @ 50°	
										8.4: 5 mm seam calcite with arsenopy, py. @ 40°.	
										9.0: 1 cm. qtz with py, cpy. & arsenopy. @ 40°.	
										9.2: 2 mm. qtz w. py., cpy, & arsenopy. @ 50°.	
										9.3: 3 mm. qtz w. py. cpy arsenopy parallel to core.	
										9.7: 3 mm. qtz w. py, cpy @ 40°.	
										10.0: 3 mm. sphalerite, py, cpy, arsenopy. @ 30°.	
										11.1-11.5: 1-2 mm. py & cpy seams @ 20°, 30° & 60°.	
										12.2-17.4: lightly fractured @ 30°, 40°, 50° & 60°; FeOx algt fractures.	
										17.2: rusty clay gouge. @ 55°.	
										12.6: 2 mm. py., arsenopy, cpy. @ 20°	
										13.0: 2 mm py. & cpy. @ 40°	
										13.4: 2 mm. seams py. w. arsenopy. @ 60°.	
										13.9: 3 mm. py., arsenopy, cpy @ 40°	
										14.8: 3 mm. qtz w. py, arsenopy cpy @ 70°.	
										15.2: 2 mm sms qtz w. arsenopy, py & cpy @ 40°.	
										15.3: 5 mm. qtz w. arsenopyrite (+) @ 50°.	
										15.4: 1 cm. qtz w. py, arsenopy (+) @ 50°.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE: 98.3%
										15.8: 1 cm. py, cpy & qtz @ 40°.	
										16.5: 1 cm. qtz. w. arsenopy. (+) @ 40°.	
										17.3: 1 cm. qtz - calcite w. py. & arsenopy. @ 30°	
										17.4-23.2: lightly fractured @ 20°, 30°, 40°, 50° & 60°; FeOx ⁽⁻⁾ alg structures.	
										17.7: 1 cm. clay gouge @ 40°	
										17.8: 2 cm. calcite & calcite breccia w. py. & cpy. @ 60°.	
										18.0: 1 cm. calcite & qtz. w. py., cpy @ 30°.	
										18.7: 1 cm. qtz - calcite with py. @ 50°.	
										20.4: little dissem. arsenopyrite	
										20.7 & 20.8: 2 mm. py. & cpy. @ 65°.	
										21.0: 1 cm. calcite @ 40°	
										21.1-21.3: little disseminated arsenopy.	
										21.4: 2 mm. py. w. cpy. @ 40° & 80°.	
										22.0: 2 mm. py. @ 80°.	
										22.1: 2 mm. py. @ 50°.	
										22.3: 2 mm. py & arsenopy. @ 60°.	
										22.5: 1 cm. calcite with arsenopy (+) @ 30°.	
										23.0: 5 mm. qtz w. py & arsenopy. @ 50°.	
										23.2-28.4: lightly fractured @ 30°, 50°, 60°, 70° & 80°; FeOx ⁽⁻⁾	
										23.3-24.1: dissem. py, cpy. & arsenopy.	
										24.7: 1.5 cm. qtz - calcite w. py, cpy, arsenopy ⁽⁻⁾ with few specks visible gold.	
										25.9-26.1: 2 mm. qtz sms. w. py @ 50°-70°.	
										27.7: 1 cm. qtz - calcite with arsenopyrite (+) & cpy @ 50°.	
										28.4-32.3: moderately fractured. @ 20°, 30°, 60° & parallel to core; FeOx ⁽⁻⁾	
										29.4: 2 mm. qtz. w. arsenopy. @ 60°	
										30.7: 3 mm. qtz. with py. & cpy. @ 70°	
										30.9: 2 x 3 mm. sms. py, cpy & arsenopy. @ 50° & 60°.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE: 98.3%
										32.2: 1mm. & 2mm. sms. qtz. w. py. & arsenopy & cpy @ 50°	
										32.3-51.8: <u>Andesite & Dacite</u> : dark brown to black; altered; fairly hard; numerous thin qtz and calcite stringers; spotty epidote; chlorite alteration in places; py. w. cpy. in places; est. 2-3% sulph.	
										32.3-32.4: qtz monzonite veinlets w. py., arsenopy.	
										33.2: 1cm. qtz w. py. & cpy @ 60°	
										33.4: 3mm. calcite w. py., cpy. @ 20°	
										32.3-38.8: moderately fractured @ 20°, 30°, 50°, 60° & 80°	
										36.1-36.3: talcose shearing @ 20° & 50°	
										36.5-36.8: " " @ 50° & parallel to core.	
										37.7-37.9: " " @ 20° & 50°	
										34.4: 5mm. qtz with py. & cpy. @ 30°	
										34.7: 1cm. qtz with py., cpy @ 50°	
										35.2: 1cm. qtz & calcite w. py., cpy. @ 60°	
										35.9: 3mm. qtz w. py., cpy & epidote @ 50°	
										36.6: 3mm. py., cpy. @ 70°	
										36.9: 1-3mm. sms. py. & cpy. @ 30°	
										37.1: 3mm. qtz w. py., cpy. @ 60°	
										38.1: 3mm. qtz w. py. & cpy. @ 35°	
										38.6: 4mm. qtz. w. py. & cpy. @ 40°	
										38.7: 5mm. qtz. w. py. & cpy. @ 30°	
										38.7-44.5: light fracturing @ 20°, 30°, 50°, 60° & parallel to core.	
										39.3-40.4: porphyritic qtz monzonite; gray; with sharp contacts @ 30°	
										41.2-41.5: " " ; upper contact @ 20°; lower @ 60°	
										41.7: 1cm. qtz w. py. & cpy. @ 60°	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE: 98.3%
										44.4-45.0: porphyritic qtz monzonite; upper contact @ 60'; lower contact @ 40'.	
										46.2: 5 mm. arsenopy w. qtz & cpy. @ 30'; 2 mm. arsenopy. w. qtz @ 40'.	
										46.4: 2 cm. qtz - calcite breccia w. py. @ 60'.	
										47.5: 3 mm. py, cpy & qtz @ 30'.	
										47.6: 3 mm. py. with qtz @ 60'	
										47.8: 5 mm. qtz with py., cpy. @ 60', & with py. & arsenopy. @ 40'.	
										48.6: 3-5 mm. qtz w. py., cpy., arsenopy. @ 30'.	
										49.1: 2 x 5 mm. qtz - calcite with py. & cpy. @ 40' & parallel to core	
										49.3-50.5: calcite - andesite breccia with py., cpy. & arsenopy. ⁽⁻⁾ ; upper contact @ 60'; lwr contact @ 20'.	
										49.9-54.9: lightly fractured @ 10', 20', 50' & 60'; FeOx alg fract., 53.6-54.3.	
										54.2-54.3: FeOx clay gouge @ 40'.	
										50.6-50.9: 1 cm. calcite w. py. parallel to core.	
										51.1-51.3: calcite - andesite bx. w. py.	
										51.4: 3 mm. qtz w. py. & cpy. @ 30'.	
										51.8: 2 cm. calcite w. py. @ 50'.	
										51.8-116.7: <u>Dacite & Rhyodacite Tuff & Tuff-breccia</u> : gray, brown & tan; hard; numerous calcite & quartz seams; pyrite in seams & disseminations; some cpy. & arsenopy. in places; estimate 3% sulphides; spotty epidote alteration in dacite.	
										52.5: 5 mm. qtz. sm. with py. & cpy. @ 50'	
										52.7: 2 cm. calcite sm. with py. @ 60'.	
										53.1: 4 cm. calcite with py. @ 40'	
										53.4-53.7: 2 cm. calcite with py. @ 40'.	
										54.1-54.2: Calcite vein with py. ⁽⁺⁾ & arsenopyrite ⁽⁻⁾ @ 30'.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
											98.3%
										54.9-60.6: lightly fractured @ 30°, 50°, 60° & 70°.	
										55.4: 5 mm. calcite with py. @ 60°.	
										56.1-56.2: 5 mm. qtz. with py. & arsenopy. @ 70°.	
										60.6-66.4: lightly fractured @ 30°, 50°, 60° & parallel to core.	
										62.1: 2 cm. calcite @ 50° with py.	
										63.2: 1 cm. qtz @ 70° with py.	
										63.7: 1 cm. qtz. w. py. & cpy. @ 50°.	
										63.8-65.2: ductile-calcite breccia @ 30°; pyrite with little cpy.	
										66.4-72.0: lightly fractured @ 30°, 40°, 50° & 60°; FeOx ⁽⁻⁾ alg. fractures.	
										66.8: 1 cm. gouge @ 40°.	
										68.0: 1 cm. calcite with py. @ 50°.	
										68.1: 1 cm. calcite with py., cpy. & sphalerite @ 50°.	
										68.3: 1 cm. calcite with py., arsenopy. @ 30°.	
										68.4: 2 cm. calcite with py., cpy. & sphalerite @ 40°.	
										68.5: 1 cm. calcite @ 80°; Py ⁽⁻⁾	
										68.7: 5 mm. qtz w. py. & little arsenopy. @ 30°.	
										68.9: 5 mm. calcite w. py., little cpy. @ 30°.	
										69.5-70.0: py. with little cpy. in num. thin sms. @ 20° to core; est. 3-5% sulphides.	
										70.6-71.2: calcite stringers (wispy) parallel to core.	
										72.0-77.6: lightly fractured @ 30°, 50° & 60°.	
										76.5-76.8: tuff banding @ 40°.	
										72.3-73.1: siliceous rhyodacite @ 40° w. py, arsenopyr. & little sphal. & cpy. - mainly disseminated.	
										73.4-73.5: calcite - rhyodacite breccia with py. @ 40°.	
										73.6: 7 cm. calcite @ 40°.	
										73.8-74.0: siliceous rhyodacite tuff with disseminated	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE: 98.3%
										77.6 - 82.9: lightly fractured @ 20°, 30°, 50°, 60° & 70°.	
										79.3: 1 cm. calcite @ 20° w. py ⁽⁻⁾ , arsenopy ⁽⁼⁾	
										79.7 - 81.4: silic. rhyodac. tuff with py ⁽⁺⁾ ; little fine arsenopy. & little cpy.	
										79.9: 2 cm. calcite w. py @ 20°	
										82.9 - 88.1: core fairly broken @ 30°, 50°, 60°, 80° & parallel to core.	
										84.1 - 85.0: shearing parallel to core. & @ 20°.	
										83.0 - 83.8: siliceous; thin calcite stringers @ 20°; py ⁽⁺⁾ w. little cpy. & arsenopy.	
										84.2 - 84.8: rhyodacite - calcite breccia with py.	
										85 - 85.3: 1 cm. calcite with fluorite parallel to core.	
										85.3 - 88.1: brown rhyodacite with numerous thin calcite stringers @ 30°-40°; consid. dissem. py. and little cpy; estimate 5% sulphides.	
										88.1 - 93.8: lightly fractured @ 30°, 50° & 60°.	
										88.1 - 92.9: rhyodacite breccia & tuff-breccia; brown & grey mottled; calcite stringers; pyrite as sms & disseminations.	
										89.0: 2 x 1cm veins calcite - rhyodacite breccia @ 70° with py, cpy ⁽⁻⁾	
										90.8: 1 cm. calcite with py. @ 30°.	
										91.0: 1 cm. calcite - rhyodacite bx. with py ⁽⁻⁾ @ 20°.	
										91.5: 1 cm. calcite with py @ 10°.	
										92.9: 1 cm. calcite with py. @ 50°.	
										93.8 - 98.7: moderately fractured @ 20°, 30°, 50°, 60° & 70°.	
										95 - 95.7: shearing @ 30°; falcuse & chloritic.	
										96.5 - 97.5: shearing @ 40°	
										94.8 - 94.9: 1 cm. calcite sm. with py. parallel to core.	
										95.4 - 98.0: andesite & dacite; greenish black; epidote alt'n.; pyrite.	
										98: shearing alg. contact @ 30°; 1cm, chloritic gouge.	
										96.7: 1cm calcite sm. w. py ⁽⁻⁾ @ 20°.	
										97.7: 1 cm. " " w. py @ 20°.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
											98.3%
										98.7-104.3: lightly fractured @ 30°, 40°, 50° & 70°.	
										99.3: 1 cm. calcite with py. @ 20°	
										100.6: 1 cm. calcite @ 50°	
										102.0: 2 cm. band calcite with py. ⁽⁺⁺⁾ @ 10° to core.	
										102.4: 5 cm. band py. ⁽⁺⁾ with calcite @ 50°.	
										103.2-103.6: dacite porphyry; grey, mafic phenocrysts @ 60°.	
										104.3-106.3: heavily fractured @ 10°, 20°, 30°, 50° & 60°.	
										106.7: 5 mm. py. with epidote @ 30°.	
										107.3: 3 mm. py. @ 50°.	
										107.7: 3 cm. py. @ 50°.	
										107.8: 7 mm. py. @ 40°.	
										108.2: 7 mm. calcite with py. @ 30°.	
										108.8: 3 mm. py. @ 30°.	
										109.7-110.6: disseminated pyrite, pyrrhotite & little arsenopyrite.	
										109.5-115.5: lightly fractured @ 50°, 60° & 70°.	
										111.2: 4 cm. calcite - rhyodacite breccia @ 60°.	
										110.6-113.7: dissem. py. with little fine arsenopyrite.	
										114.1-115.5: dissem. py., pyrrhotite ⁽⁺⁾ & fine arsenopy. in rhyodacite tuff.	
										115.5-121.2: lightly fractured @ 30°, 40°, 50° & 60°.	
										115.5-116.1: rhyodacite tuff-bx. w. dissem. pyrrhotite ⁽⁺⁾ , py. & minor arsenopy.	
										116.7-123.5: <u>Dacite tuff & tuff-breccia</u> ; dark brown & green; chloritic	
										118.7: tuff-breccia.	
										116.7-121.2: dissem. pyrrh. ⁽⁺⁾ , py & arsenopy. ⁽⁻⁾	
										119.3: 5 mm. py. @ 50°	
										121.2-126.9: lightly fractured @ 10°, 30°, 40°, 50° & 60°.	
										123.3: 3 cm. calcite with py. & fine arsenopy.	
										123.5: 1 cm. calcite with py. & arsenopy. @ 30°.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE: 98.3%
										123.5-137.4: <u>Rhyodacite Tuff & Tuff-breccia</u> : grey to tan; hard; dissem. py, pyrrhotite, & fine arsenopyrite.	
										126.9-132.2: moderately fractured @ 50°, 60° & 70°.	
										129.5: 2 cm. qtz. with fine arsenopy. @ 60°.	
										132.2-137.4: lightly fractured @ 10°, 30°, 50° & 60°.	
										133.2: 1 cm. calcite sms. with py ⁽⁺⁾ @ 10° & 40°	
										135.0: 1 cm. calcite @ 30° & 3 cm. calcite-rhyodacite breccia.	
										135.9: 3 mm. arsenopy. sm. @ 30°.	
										136.0: 3 mm. qtz with arsenopy. @ 60°.	
										136.2: 3 mm. arsenopy. & py. @ 50°	
										137.4-151.5: <u>Dacite Tuff & Tuff-breccia</u> : as 116.7-123.5 m.	
										137.4-142.9: lightly fractured @ 30°, 40°, 60° & 70°.	
										138.8: 5 mm. seam arsenopy. & qtz @ 50°.	
										142.0: 1.5 cm. qtz-calcite seam w. py ⁽⁺⁾ @ 30°.	
										137.6-139.3: fair arsenopy. as disseminations & narrow seams.	
										139.3-142.3: dissem. pyrrhotite ⁽⁺⁾ & py.	
										143.4-143.8: chloritic & talcose shearing @ 70°.	
										142.9-148.3: light fracturing @ 30°, 40°, 50° & 60°.	
										144.6: 3 mm. sm. arsenopy. @ 70°.	
										144.9: 1 cm. calcite seam with py. @ 70°.	
										145.6: 1 cm. calcite @ 60°	
										146.8-147.2: calcite vein with py ⁽⁺⁾ & arsenopy.	
										148.0-148.1: calcite-rhyodacite breccia with py. @ 50°.	
										142.9-151.5: dissem. py. & pyrrhotite with little arsenopy., also thin seams.	
										149.6: 1 cm. calcite @ 50°; 2 cm. calcite @ 70°.	
										151.5 - END OF HOLE	

Depth Interval		CORE						Depth Interval		SLUDGE					
From	To	Sample No.	Meters Inches Rec.	% Rec.	ASSAY			From	To	Sample No.	Lbs. Rec.	% Rec.	ASSAY		
					Ag		6x1								
6.1	8.2	550	1.4	67											
8.2	10.0	1	1.6	88	.064		.1152								
10.0	12.0	2	2.05	102	.112		.2240								
12.0	14.0	3	2.12	106	.011		.0220								
14.0	15.5	4	1.6	103	.104		.1560								
15.5	17.0	5	1.51	101	.028		.0420								
17.0	19.0	6	1.96	98	.009		.0180								
19.0	21.0	7	1.94	97	.008		.0160								
21.0	23.0	8	2.0	100	.012		.0240								
23.0	25.0	9	2.0	100	.019		.0380								
25.0	27.0	560	2.0	100	Tr		0								
27.0	29.0	1	2.0	100	.009		.0180								
29.0	31.0	2	2.0	100	.008		.0160								
31.0	33.0	3	1.94	97	.020		.0400								
33.0	35.0	4	1.82	91	.005	6.1-35.0	.7292								
35.0	37.0	5	1.94	97	.006										
37.0	39.0	6	2.08	104	.005										
39.0	41.0	7	1.88	94	.016										
41.0	43.0	8	2.0	100	.018										
43.0	45.0	9	2.06	103	.005										
45.0	47.0	570	2.0	100	.012										
47.0	49.0	1	1.96	98	.011										
49.0	51.0	2	1.96	98	.015										

.039
78.9

.027
28.9

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
											98.6%
										0 - 3.3 : <u>Overburden</u>	
										3.3 - 44.9 : <u>Quartz Monzonite</u> : grey-green; porphyritic with well-formed plagioclase feldspar phenocrysts; brown biotite altin.	
										3.3 - 4.3 : well mineralized with cpy, arsenopy., py. & minor pyrrhotite.	
										10.1 - 10.4 : zone of carbonate stringers (15%) @ 50°-70° with parallel stringers of py. & arsenopy.	
										20 - 20.1 : 1 cm. seam of arsenopy., py. & cpy.	
										25 - 44.9 : less biotite alteration; in places 2-3% pyrrhotite.	
										4.3 - 44.9 : varying amounts of arsenopy., cpy & py.; in general quite well mineralized.	
										44.9 - 48.8 : <u>Dacite</u> : med. green with brown biotite; minor stringers carbonate; disseminations & fine stringers of arsenopy., py, pyrrhotite & cpy.	
										48.8 - 53.5 : <u>Quartz Monzonite</u> : as above, with fine grained dissem. py, cpy & pyrrhotite; sharp contacts @ 30°; quartz-carbonate stringers cut through contact.	
										53.5 - 76.2 : <u>Dacite</u> : fine grained, brown to green; fine grained biotite alter'n.; numerous thin qtz-carbonate stringers; finely dissem. py. (7%), pyrrhotite & minor arsenopy. Arsenopy. decreases & pyrite increases with depth. Below 62 metres, very little sulphides.	
										76.2 - 90.9 : <u>Rhyodacite</u> : gray, siliceous with stringers of arsenopyrite in places from 76.2 - 84 m.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
											98.6%
										84 - 90.9: siliceous with 1-2% pyrite & little cpy as disseminating; also little v. finely dissem. arsenopy.	
										90.9 - 117.9: <u>Rhyodacite Tuff-breccia</u> : greenish to brown varying with alteration; web-like qtz-carbonate (80%) stringers; minor arsenopyrite, pyrite, cpy. & pyrrhotite; qtz-carb. stringers cut through breccia clasts; siliceous & brittle.	
										95.8 - 96.1: Fault; gouge @ 20°.	
										98.4 - 98.8: " " @ 20° & 50°.	
										95.8: breccia; carbonate clasts; in zones of finer breccia (1cm) matrix is qtz carbonate	
										96.9 - 97: sheared @ 50°	
										99.3: shearing @ 30°	
										99.5: tuff-breccia banding @ 50°	
										97.6 - 97.7: <u>visible gold</u> in very fine grained qtz seam, 1 cm. wide @ 20° to core; little py. & arsenopy.	
										98.8 - 99.0: rhyodacite-carbonate breccia w. py. @ 20° to core.	
										95.2 - 100.2: mainly diss. py.; Estimate 3% sulphides.	
										102 - 102.2: shearing @ 10° to core.	
										100.2 - 105.4: includes narrow bands siliceous rhyodac. tuff; numerous calcite stringers 2mm - 2cm. wide @ 30° & parallel to core; estimate 3% sulphides mainly py. - disseminated & in seams	
										108.1 - 109.3: shearing @ 20°	
										101.6: rhyodac. tuff-bx faccd w. calcite sms. @ 30°, 40° & parallel to core.	
										106.9 - 107.3: siliceous with fine arsenopy. & py. ⁽⁺⁾	
										107.5 - 108: tuff-bx banding @ 30°-40°.	
										105.4 - 110.4: Estimate 3% sulphides mainly py. - disseminated & in seams.	
										114.4 - 114.6: sheared @ 20° & parallel to core.	
										111.7: tuff-breccia banding @ 20° - 30°.	
										112.3: " " @ 30°.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
											98.6%
										109.4 - 112.4: dacite breccia; brown & grey with banding @ 30°; py. as thin seams & disseminations.	
										112.4 - 113.2: rhyolac. tuff; grey & tan; dissem. py.	
										112.6: tuff banding @ 50°	
										113.2 - 115.4: rhyolac. tuff-bx; brown; dissem. py.	
										113: 5 cm. calcite vein. @ 30°; py ⁽⁻⁾	
										115.1: 5 mm. py, arsenopy. with qtz @ 70°	
										115.4 - 120.5: lightly fractured @ 20°, 30°, 50°, 60° & 70°.	
										115.4 - 117.9: rhyolac. tuff-bx; py.	
										117.9 - 122.7: <u>Rhyolac. tuff</u> : tan & grey; some tuff banding @ 40°; disseminated pyrite	
										117.9 - 118.1: rhyolac. tuff-calcite breccia w. py. @ 30°.	
										119.7 - 125.4: lightly fract. @ 20°, 30°, 50°, 60° & parallel to core	
										122.7 - 127.8: <u>Dacite Tuff-breccia</u> : brown; dissem. py.	
										122.2 color-banding @ 20°	
										122.9 - 123.2: " @ 40°	
										124.7: " @ 30°	
										125.4 - 131.2: light fracturing @ 30°, 50° & 60°.	
										127.8 - 167.4: <u>Rhyolacite tuff-breccia</u> : grey, tan & green with color banding @ 30°; dissem. pyrite.	
										128.6 - 128.8: calcite veining @ 10° with 5 mm. cross-vein @ 60°	
										130.8 - 131.0: " " @ 30°	
										131.2 - 136.8: lightly fractured @ 20°, 30° & 50°; fine pyrite with some fine dissem arsenopy.	
										131.5: 2 cm. calcite @ 40°	
										131.8: 5 mm. calcite sm. w. py ⁽⁺⁾ @ 35°.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE: 98.6%
										133.2 - 133.8: color banding @ 10°-20°.	
										134.2 - 134.6: " " @ 30°-40°.	
										134.1: 1cm calcite with py. @ 50°	
										134.4: 1cm. calcite with py. @ 20°; few specks arsenopy.	
										135.6: tuff banding @ 45°.	
										135.8-135.9: calcite vein @ 35° with py. & a little arsenopy.	
										135.9-136.7: consid. fine py.; little arsenopy.	
										136.8 - 142.5: light fracturing @ 30°, 50° & 60°; finely dissem. py. & arsenopy.	
										137.4: 3 mm. seam. calcite with py. & arsenopy.	
										138.2: 20 cm. calcite with py.; little arsenopy. @ 60°	
										139.5-139.8: calcite - rhyodac. bx @ 30° with pyrite rimming, ^{altered} rhyodacite clasts	
										140.5 - 141.3: " " " @ 30° w. pyrite rimming alt. rhyodac. clasts	
										142.5 - 148.3: light fracturing @ 40°, 50° & 70°; estimate 3% sulphides as fine pyrite dissem. throughout.	
										143.9-144.7: rhyodacite tuff; veined by calcite @ 20° & 30° (5mm-1cm) - almost rhyodac. - calcite bx.	
										145.7-145.9: calcite vein with rhyodacite breccia @ 20°.	
										146.1-148.9: rhyolite tuff; grey, hard, siliceous; upper contact @ 50°; lwr @ 40° (not sharp)	
										149.1 - 149.6: tuff banding @ 20°.	
										151 - 151.2: tuff - bx. banding @ 20°.	
										151.5 - 153.6: tuff banding @ 25°.	
										148.3 - 154.2: light fracturing @ 30°, 50°, 60° & 70°	
										151.2 - 151.4: calcite vein with py., arsenopy. in fine grained bands parallel to contacts @ 60°	
										153.5: 4 cm. calcite @ 40° with py. & little arsenopy. & sphalerite.	
										148.3 - 150.6: dissem. py. with sparse arsenopy.	
										150.6 - 153.5: dissem. py. & pyrrhotite with little arsenopy.	
										153.5 - 154.2: " " & fine arsenopy.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
											98.6%
										154.2-157.0: lightly fractured @ 20, 50 & 70; rhyodac. tuff-bx with dissem. pyrite & pyrrhotite; few specks arsenopy.	
										157-159.5: strongly fractured @ 20, 30, & 40.	
										157.4: 2 cm. sandy gouge @ 20.	
										157.8-158.5: shearing with chloritic gouge @ 10, 30 & 50.	
										157.2-158.7: rhyodacite-calcite bx @ 50 with py ⁽⁻⁾	
										159.1-159.5: rhyodacite tuff with calcite sms. @ 30-40; py. & fine arsenopy.	
										159.5-164.9: moderate fracturing @ 30 & 70; FeOx alq 30 fractures; disseminated pyrite; estimate 3% sulphides.	
										162.2-162.8: light shearing @ 30; talcose.	
										162.8-163: calcite-rhyodacite breccia with py ⁽⁻⁾ @ 20.	
										165.4-167.4: faulting @ 20; strongly sheared & leached rhyodacite-breccia; gougy & talcose; dissem. py.	
										167.4-175.1: <u>Rhyodacite tuff</u> ; lightly fractured @ 40, 50 & 60; dissem. pyrite.	
										168.7: 2 cm. calcite w. py. @ 40.	
										168.9: 2 cm. calcite w. py ⁽⁻⁾ @ 70; 2 cm. calcite-breccia w. py ⁽⁻⁾ @ 40.	
										174.3-174.8: fault @ 40; sheared rhyodac. breccia; chloritic & talcose; also fault breccia.	
										170.4: 1 cm. calcite @ 50 with pyrite ⁽⁻⁾	
										170.6: 2 cm. calcite with py ⁽⁻⁾ @ 60.	
										172.2: 1 cm. talcose gouge @ 50.	
										172.2-172.8: 1 cm. py ⁽⁺⁾ & calcite parallel to core.	
										175.1-187.0: <u>Dacite tuff and breccia</u> : brown, grey & green; fairly hard; gradational with rhyodacite unit above (mainly color differentiation)	
										175.1-175.7: dissem. pyrrhotite.	
										175.7-181: moderately fractured @ 30, 50 & 60; dissem. & patchy pyrrh. w. little pyrite; estimate 4% sulphides.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
											98.6%
										177.0: sheared & chloritic @ 30°.	
										178.1-178.2: " " @ 30°.	
										180.3-180.5: " " @ 30° & 50°.	
										187-197.2: <u>Rhyodacite tuft & tuft-breccia</u> : grey; fairly well mineralized with py & pyrrhotite; pyrrhotite both dissem. & in seams @ 30°.	
										187.4: 10 cm. of py. veins @ 60°.	
										187-191.6: moderately fractured @ 10°, 30°, 50° & 60°; fair pyrrhotite with little cpy.; estimate 4% sulphides.	
										191.4: 6 cm. calcite vein with pyrrhotite ⁽⁺⁾ and little cpy. @ 60°.	
										191.7-193.1: dacite breccia: mottled; grey, brown & green; disseminated pyrrhotite, pyrite ⁽⁻⁾ ; few 1 cm. calcite sms @ 40°.	
										191.6-197.2: lightly fractured @ 30°, 40°, 50° & 60°.	
										197.2-203.3: <u>Dacite breccia</u> : green & brown; dissem. pyrrh. in patches & blobs; estimate 4% sulphides; thin opalescent quartz stringers @ 50°; contacts @ 40°.	
										197.2-202.9: lightly fractured @ 30° & 70°.	
										200.7: 2 cm. calcite sm. @ 60° w. py ⁽⁻⁾ .	
										201.1-203.3: brown & green mottled dacite breccia; pyrrhotite ⁽⁺⁾ & pyrite; estimate > 5% sulphides; upper contact @ 70°.	
										203.3: <u>END OF HOLE</u> .	

Co. - Suk - 906 H NES Locality 40 D Tng
 Hole No. DDH-22 Page No. 1 of 7
 Coordinates: 9984 N 9957 E
 Collar elev. 1475 m Bearing NGS°E
 Inclination -55° Total Depth 145.0 METRES

Date Started SEPT 3/80
 Date Finished SEPT 6/80
 Ref. to Claim Corner
 Logged by R. Hoggatt

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE: 90.4%
										0.0 - 9.1 Overburden.	
										9.1 - 25.1 Siliceous Rhizodaute Breccia Medium green to pinky brown in colour. The breccia pieces have a porphyritic texture. Fe ₂ filling along fracture surfaces. Fine web-like Qtz - carb stringers that cut through the breccia pieces. 9.1 - 11.5 Medium green with 1.4 cm breccia pieces 2% Fe ₂ 11.5 on Pink brown with the breccia pieces to 10 cm 15.5 Minor Pyroxene 18.0 Minor dark crystals (Hornblende, Chlorite?) 20.0 Core matrix changes to a light grey-green. 21.4 7 cm brecciated carbonate stringer, Minor Fe ₂ mineralization Core is very broken from here. 25.0 10 cm Calcite breccia with contact at 70° to AN C.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
										25.1-41.3 <i>Daube</i> light grey-green with minor ϕ -l stringers, minor disc FeS_2 minor disc Chlorite crystals	
										37.0-37.5 Slight alignment of Feldspar crystals at 65° to A.P.C.	
										40.5 <i>Daube</i> is very siliceous. Contains disc FeS_2 and a 5mm stringer containing FeS_2 ZnS at 40.65	
										41.3-43.3 <i>Vein zone.</i> <i>Rhyodacite</i> , very siliceous. Sharp contact at 45° to A.P.C. There is disseminated FeS_2 , ZnS, FeAsS mineralization throughout (5% combined). Contact at 55° to A.P.C. Hood looking mineralization	
										43.3-56.0 <i>Rhyodacite Tuff Breccia:</i> Siliceous light brown green. Sub-rounded 1-4 mm breccia pieces, some altered by Chlorite. Tuff banding causes colour changes in the matrix. Minor stringers of FeS_2 .	
										50.6-51.0 5cm band 75° to A.P.C. of <i>Sty Carb.</i> . Contains 3% FeS_2	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS	AVE. CORE REC'Y/HOLE
										54.0	Tuff banding is quite distinct at 75° to A.D.C.
										56.0	3cm Qtz-Carb stringer with 5% Fe ₂ at bedding contact 80° to A.D.C.
										56.0-59.5	Route. Medium grey-green 1% disc Fe ₂ . Discs dark (Hornblende Chlorite) crystals. May still be a part of the Tuff bands as it gets quite siliceous near the end.
										59.5-74.2	Rhyodacite Tuff Breccia Distinct banding at 45-60° to A.D.C. Altered 1-10mm breccia pieces. Minor web-like Qtz-Carb ^(Fe₂) stringers & minor disc Fe ₂
										59.5-60.0	10-12% Qtz-Carb (80%) stringers 5-8cm in thickness at 60° to A.D.C.
										63.2	Minor disc light brown Feldspar crystals, well formed.
										64.0	There are larger foreign fragments wide spread through the tuff beds.

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS	AVE. CORE REC'Y/HOLE
										74.2-74.7 Rhyodacite Tuff Breccia	
										Same as above but with a some Qtz-Carb stringers mineralized with FeAsS, ZnS, FeS, and minor ZnS diss in Qtz-Carb stringers	
										74.7-75.2 Vein Zone.	
										Rhyodacite with Qtz-Carb stringers (15%) and stringers of ZnS, FeS, FeAsS. Strong vein	
										75.2-81.2 Rhyodacite Tuff Breccia.	
										Light brown-green siliceous with distinct breccia fragments. Same as above vein. Minor web-like Qtz-Carb stringers	
										81.2-81.6 Vein Zone.	
										Brecciated with tuff breccia matrix 75% and stringers of Qtz-Carb 5%, and stringers of FeAsS, ZnS, FeS 20% combined. Sharp contact at 60° to A.R.C. Good looking vein	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
										81.6-90.5 Naute Sulf Breccia	
										Medium green chlorite. Well formed breccia with Minor Q-c. stringers & minor diss Fe ₂	
										90.5 7cm Q-c veinlet with 20% Fe ₂ . Contact at 50° to A&C.	
										90.5-99.5 Rhyodacite Sulf Breccia.	
										Core is light green and a little more siliceous. There is fine diss Fe ₂ throughout (1%) Minor Qtz-carb banding at 20° to A&C. In places there are diss light-brown Feldspar crystals.	
										99.5-99.95 Vein Zone.	
										Brecciated Qtz-carb (60%) with Rhyodacite (30%) and FeAs Fe ₂ & Pyrrhotite (20% combined) mineral- ization. Sharp contact at 30° to A&C. and gougey contact at 45° to A&C. Overall mineralization is quite weak.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
										99.95 - 102.1 Rhyodacite Tuff Breccia light grey-brown green. Minor Qtz. Calc stringers, and. minor disc FeS ₂	
										102.1 - 102.7 Rhyodacite Tuff Breccia with ZnS FeS ₂ FeAsS (?) mineralized Qtz. Calc stringers Also contains minor disc Pyrrhotite	
										102.7 - 103.0 Urem Zone. Weak vein. Brecciated Rhyodacite Tuff (80%) and d-c (20%) with minor ZnS FeS ₂ and Pyrrhotite mineralization	
										1030 - 130.3 Rhyodacite Tuff Breccia light green siliceous containing 1% disc FeS ₂ and minor disc Pyrrhotite. Tuff banding at 50° to ABE.	
										109.2 - 109.9 Very distinct band, almost looks like intrusion or very porphyritic	
										115.5 10cm Calcite breccia with Rhyodacite (brown) breccia pieces. Minor FeS ₂ Pyrrhotite mineralization	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
										118.0 Matrix changes to a light brown	
										128.6 2 cm d-e stringer containing Fe ₂ ZnS Fe As S mineralization	
										128.6-130.3 Minor diss light brown phenocrysts of feldspar.	
										130.3-130.5 Vein zone.	
										Brecciated Qtz-Carb, contact at 35° to ABE. Contains 7% combined FeAsS FeS ₂ ZnS mineralization	
										130.5-137.5 Rhyolite Tuff Breccia	
										light green-brown. Minor diss hornblende crystals Minor fine diss FeS ₂ . Banding at 45° to ABE.	
										137.5 EOH	

Hole No. DDH-23 Page No. 1 of 9
 Coordinates: 9631 N 9765 E
 Collar elev. 1645 Bearing 245°
 Inclination -55° Total Depth 115.8

Date Started SEPT 8/80
 Date Finished SEPT 16/80
 Ref. to Claim Corner
 Logged by K. Hopath

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE: 84.5%
										0.0-7.0 Overburden.	
										7.0-20.0 Andesite	
										Dark green almost black with 5% randomly oriented O-L stringers and 2-3% diss FeS ₂ . Fine grained.	
										12.1- Majority of O-L stringers have a pattern which cut core at 30°, 50° & 70°	
										13.7- FeS ₂ becomes more finely diss throughout core. There is also finely diss brotite	
										15.5-15.7 Brecciated O-L stringer, sharp contact at 20° to N of E. 3% diss FeS ₂ possible minor Fe As S	
										17.5-17.8 Rhyolite suff Breccia Contact 80° to N of E. Fine diss FeS ₂ (3%) and possible Fe As S.	
										19.0-19.2 Rhyolite suff Breccia. Contacts at 60 and 45° to N of E. fine diss FeS ₂ (3%) Possible Fe As S, siliceous.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
										20.0-22.0 Rhyolite Sulf Breccia	
										Siliceous light grey. Hazy fault contact at 40° to A&C. Bedding contacts at 45° to A&C. 3% fine duss FeS ₂	
										21.8 2cm Q-C stringer at 20° to A&C containing FeS ₂ + FeAsS Appears to be very fine FeAsS in the surrounding matrix	
										22.0-23.5 Andesite Breccia	
										98% Andesite (black) with Rhyolite Sulf breccia pieces This cut by thin Q-C stringers at 60-90° to A&C.	
										23.5-24.1 Rhyolite Sulf Breccia	
										Contact at 60° to A&C. Light grey siliceous. Fine duss FeS ₂ (3%) and possible minor fine duss FeAsS.	
										24.1-30.3 Andesite Breccia	
										Dark-green black matrix 90% with breccia pieces up to 30cm of Rhyolite Sulf breccia. Cut by Q-C stringers at angles 45, 55 & 70° to A&C.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS	AVE. CORE REC'Y/HOLE
										30.3-35.0 Quartz Monzonite	
										10 cm brecciated contact at approx 60° to H&C. Intrusive is pink-green with 10% diss Biotite. There is 2-3% fine dis Fe ₂ mineralization	
										35.0-49.4 Interbedded Dacite, Rhyodacite Sulf Breccia	
										35.0-35.6 Dacite dark green, slight brecciation of Rhyodacite Sulf fragments 5% diss Q-C stringers 3% fine dis Fe ₂	
										35.6-35.9 Rhyodacite Breccia. First 5 cm show parallel banding at 60° to H&C. Fe ₂ min does not cut through bands. Breccia is a light grey-green with 5% diss Fe ₂ 2 cm Q-C stringer along further contact, stringers cut core at 45°:60°	
										35.9-37.1 Dacite Breccia 95% matrix 5% fragments. Q-C stringers (5%) 60° to H&C. 8% diss Fe ₂	
										37.1-38.6 Rhyodacite Sulf Breccia. Sharp contact at 45° to H&C. Light green-brown. 3% diss Fe ₂	
										38.0-38.4 Fault zone gauge 60° to H&C.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
										38.6-42.7 Ductile Breccia dark green with 3% chrs FeS ₂ . Minor D-E stringers at 50-70° 40.6-40.8 Fault zone		
										42.7-44.0 Rhyodacite Tuff Breccia. Light green-brown siliceous. Contact at 60° to A&B C. Randomly oriented fine D-E stringers cut through breccia.		
										44.0-45.4 Ductile Tuff Breccia Contact at 70° with 3cm D alternating Ductile, D-E banding. 3% chrs FeS ₂		
										45.4-49.4 Rhyodacite Tuff Breccia. Contact at 70° to A&B C.		
										45.6-48.0 Fault zone - very broken.		
										49.4-50.8 Vein zone gauge, brecciated D-E (50%). Hole lost in vein very little recovery (25%) There is 4% chrs FeS ₂ Minor Pyrrhotite & FeAsS.		
										50.8-54.2 Fault zone. 90% gauge with 3-5cm fragments of siliceous Rhyodacite & vein material.		
										53.5-53.8 Light grey-green siliceous Rhyodacite with fine chrs FeS ₂		

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
										54.2-55.2 Vein zone. Very siliceous brecciated Q-C. with 3% disc Fe ₂ and minor Pyrrhotite, FeAsS, and ZnS. No visible v.c. Contact at 50' to A/C. Both contacts gauge.	
										55.2-56.0 Dacite Brecciated dark green. Contains brecciated pieces of Q-C.	
										56.0-56.3 Quartz Monzonite. Fault zone 50% gauge 50% brecciated Q-M. Minor Fe ₂ mineralization. Pink-green in colour. Both contacts faulted.	
										56.3-60.3 Rhyodacite-Dacite Sulf Breccia. Light grey-green to dark green. Bedding at 65' to A/C. Contains 10% randomly oriented Q-C. Carb stringers & 3% disc Fe ₂ . There is minor fine disc FeAsS. 59.7 Fault gauge.	
										60.3-61.5 Fault zone. Gauge and fragments of Dacite	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
										61.5-64.3 Diabase Dark green with minor Q-C stringers 3-4% dias FeSi. Minor dias Epidote. Fine grained	
										620-630 Fault zone - gauge	
										63.3-63.5 " " "	
										64.1-64.3 " " "	
										643-650 Quartz Monzonite. Pink-green, contact at 20° to N80E. 2% dias FeSi, minor dias Cu FeSi. Contact 90°	
										65.0-65.3 Rhynchonite Tuff Breccia light brown-green siliceous fine grained with 3% dias FeSi and minor Cu FeSi	
										65.3-65.8 Quartz Monzonite Pinkgreen contact at 70° to N50E. Contacts at 70° 45° to N90E. Contains 1-2% dias FeSi and minor Cu FeSi	
										654-657 Fault zone.	
										65.8-67.4 Diabase Dark green fine grained, cut by randomly oriented Q-C stringers Fine dias FeSi (2%) and Cu FeSi (0.2%)	
										67.4-67.8 Quartz Monzonite. Contact 10° to N80E. Pink-green colour. Contains 2% dias FeSi and minor Cu FeSi 7% dias Biotite	
										67.8-68.2 Diabase Dark green fine grained. Randomly oriented Q-C stringers 2% dias FeSi minor Cu FeSi	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
										68.2-71.7 Quartz Monzonite. Contact 90° to AqL. Pink-green colour 7% deers Biotite Core is very close to Qtz-Mon-Daite contact and slips back and forth. Contains 2% deers FeS ₂ and minor Cu FeS ₂ .	
										68.9-69.3 Daite Dark green fine grained 2% FeS ₂ ; minor Cu FeS ₂	
										69.3-69.7 Daite 60% Qtz Mon. 40% parallel to core	
										69.7 Quartz Monzonite	
										71.2-71.6 Fault zone.	
										71.7-72.9 Daite - Dark green, brecciated 20% with 10-15 cm fragments of Rhyolite. Randomly oriented Q-L stringers cut through the breccia. 1% deers FeS ₂	
										72.9-74.7 Rhyolite - light grey siliceous with 20% Quartz & Pink Calcite 2% deers FeS ₂ . There is minor brecciation	
										74.0-74.7 Fault zone gouge 20%	
										74.7-100.4 Daite Breccia Fine grained, dark green matrix (60%) and light brown breccia pieces. 1-2% fine deers FeS ₂ 5% randomly oriented Q-L stringers. Minor deers Epidote.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS	AVE. CORE REC'Y/HOLE
										76.0 Minor Cu FeS ₂	
										76.5-77.0 Fault zone - gauge	
										77.4-78.0 " " "	
										81.0 - Increase in fine class FeS ₂ & C stringers at 30, 60 & 90° Core is getting siliceous.	
										82.8-83.8 Fault zone gauge Core is quite leached up to 84.3	
										84.3 Core is finely brecciated 2% FeS ₂ and C stringers cut through fragments Dark green fine grained.	
										86.0-86.4 Fault zone Core is very broken. Sulfate fragments	
										86.4-89.7 Sulfate leached to a light grey between the two faults	
										89.7-90.5 Fault - gauge, Sulfate fragments. Contact 35° to N 8 E.	
										90.5-91.2 Sulfate - dark green brecciated fine grained.	
										91.2-93.3 Fault zone - gauge Sulfate fragments	
										93.3-96.3 Sulfate Breccia with C stringers predominately at 45° to N 8 E. 4% class FeS ₂	
										96.3-96.6 Fault zone	
										96.6-97.6 Sulfate	
										97.6-98.0 Fault zone	
										98.0-99.1 Sulfate	
										99.1-99.3 Fault zone	
										99.3-99.5 Sulfate	
										99.5-100.4 Fault zone.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
										100.4 - 101.1 Vein zone. Faulted gouge (50%) Contact 55° to A&P. 50% brecciated Quartz - pink Calcite with 5% disse FeS ₂ mineralization.	
										101.1 - 115.8 Ductile Breccia - Dark green. Randomly oriented ϕ -l stringers (7%) with some aligned 30° to A&P. Slight increase in the amount of FeS ₂ . Pore is quite siliceous in short sections (20cm) 104.7 - 105.0 is a siliceous zone.	
										108.3 - 110.5 Fault zone gouge 50% Ductile fragments 50% Contact 15° to A&P.	
										110.5 - 111.2 Ductile	
										111.2 - 113.1 Fault zone 70% Ductile fragments 30% gouge	
										113.1 - 115.8 Ductile Breccia	

Project CONSOLIDATED SILVER RIDGE Location FED DOG
 Hole No. DDH-24 Page No. 1 of 6
 Coordinates: 9500 N 9786 E
 Collar elev. 1645 m Bearing DUE EAST
 Inclination -63° Total Depth 106.4

Contractor LOMBARD CANADA
 Date Started SEPT 29/80
 Date Finished OCT 1/80
 Ref. to Claim Corner
 Logged by T. Hogarth

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE
											88.3%
										0-6.1 Casing	
										6.1-7.9 Daulte Tuff Breccia Dark green with 5% randomly oriented Q-l stringers contains 1% disc Pyrite	
										7.9-12.7 Quartz Monzonite Reddish green with 5% randomly oriented Qtz-larb. stringers. Contact 70° to N80E. Contains minor disc Pyrite, Pyrrhotite	
										10.7-12.7 Daulte Tuff Breccia Dark green with 5% randomly oriented Qtz-larb stringers contains minor Chalcopyrite with Malachite staining close to contact. 1% disc Pyrite and minor Pyrrhotite. Contact 90°	
										12.7-13.7 Quartz Monzonite - Daulte Breccia Pink-green Qtz. Monz matrix with 10% Daulte Breccia fragments. Contains minor Pyrite. Contact's gangue at 60°	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
										13.7-16.8 Saulte Jaff Breccia	
										Medium to dark green with 5% randomly oriented Qtz-Carb stingers 4-5% stingers and disc Pyrite and minor Chalcopyrite. Core is slightly siliceous.	
										16.2 Fault zone - gauge	
										16.6-16.8 Fault zone gauge	
										16.8 From 16.8 there is very little mineralization	
										16.8-32.3 Quartz Monzonite	
										Pink-green colour. Contact 65° to A&C. Fracture surfaces are limonite stained. Minor randomly oriented Qtz-Carb stingers. Minor fine disc Pyrite.	
										22.5-26.0 Several gauge slips 15° to A&C.	
										27.7 Fault zone - gauge	
										28.0-28.7 Fault zone - gauge	
										28.7 Core has been broken and re cemented to form a brecciated Q Mon	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS	AVE. CORE REC'Y/HOLE
										32.3-38.1 Fault Zone. 50% gauge and 50% Qtz Monz and Diacite Breccia contains minor randomly oriented Qtz carb stringers which cut through breccia. Minor disc Pyrite	
										38.1-40.2 Diacite Tuff Breccia Medium green-brown mottled. Cut by randomly oriented Qtz carb stringers Minor disc Pyrite. Contact 75°	
										39.7-40.2 Fault zone gauge	
										40.2-41.4 Quartz Monzonite Pink-green colour. Core is very broken and Limonite stained	
										40.8-41.4 Fault zone 50% gauge.	
										41.4-42.3 Basalt Dyke Black, contact at 45° to N.E. Very white crystals of Carbonate	
										42.3-43.6 Quartz Monzonite (Fault Zone) 50% QM 50% gauge. Fracture surfaces are Limonite stained	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
										43.6-45.0 Ducte Sulf Breccia Medium to dark green with 5% randomly oriented Qtz-larb stringers. Fracture surfaces are limonite stained. Contains minor diss Pyrite	
										447-44.8 10cm banding 30% Qtz-larb at 80° to H&C.	
										450 Minor Arsenopyrite	
										450-106.4 Rhyolite Sulf Breccia Light green-brown mottled. Contains 1% diss Pyrite and minor diss Arsenopyrite. Quite siliceous in places. Contains 3% randomly oriented Qtz-larb stringers	
										461-46.2 Brecciated chloritized banding 80° to H&C.	
										47.0 - This bed looks identical to one cut in 79-2 (67m) and in S-4 (high grade). There is an increase in the amount of diss Arsenopyrite	
										48.6-48.7 Brecciated banding 80° to H&C (bedding?)	
										49.8 Minor Sphalrite in Qtz-larb stringer 50° to H&C.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS	AVE. CORE REC'Y/HOLE
										49.8-50.3 Good strong Arsenopyrite mineralization	
										53.4 Contact at 80° to H&C. Very fine grained (siltstone?) with undulating banding at 20° to H&C.	
										56.6 Finely brecciated zone 40° to H&C.	
										57.0 5cm Qtz-Carb stringer at right angles to H&C containing Arsenopyrite, Sphalerite, & Pyrite mineralization. Slightly offset by Qtz-Carb stringer cutting at 15° to H&C.	
										57.8-58.0 Minor Sphalerite in Qtz-Carb stringers	
										58.3 3cm Qtz-Carb stringer 60° to H&C with Pyrite, Arsenopyrite and Sphalerite mineralization.	
										61.8-61.9 10cm brecciated band 60° to H&C with good Arsenopyrite, Pyrite and minor Sphalerite mineralization	
										63.8-66.0 Very fine grained	
										69.0-69.2 Fault zone	
										70.3-70.5 Fault zone.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS	AVE. CORE REC'Y/HOLE
										72.8-73.0 Fault zone	
										74.4-74.7 Fault zone	
										74.8-74.9 Good Arsenopyrite mineralization 7%	
										82.6-83.0 Good Arsenopyrite mineralization	
										81.6 Bedding 80° to N of E.	
										85.0-85.3 Banding at 30° to N of E.	
										89.5-91.5 Increase in the amount of disseminated Arsenopyrite. Minor Pyrrhotite	
										91.5-97.2 Very siliceous zone. 60% Quartz 4% Pyrite with minor Pyrrhotite & Arsenopyrite	
										97.2-98.2 Very fine grained (siltstone?) light green.	
										98.2-99.4 Fault zone	
										100.8-101.7 Fault zone	
										106.0-106.4 Fault zone.	

Project CONSOLIDATED SILVER PLAGE Location Red Dog
 Hole No. 2A Page No. 1 of 3
 Coordinates: _____ N _____ E
 Collar elev. 1645 m Bearing _____
 Inclination -63° Total Depth 106.4

Contractor LONGYEAR CORP
 Date Started _____
 Date Finished _____
 Ref. to Claim Corner _____
 Logged by H. H. Hough

Depth Interval		CORE						Depth Interval		SLUDGE												
From	To	Sample No.	Inches Rec.	% Rec.	Assay	ASSAY					From	To	Sample No.	Lbs. Rec.	% Rec.	ASSAY						
6.1	7.9	957	1.9	72	.023																	
7.9	10.7	8	1.6	58	.009																	
10.7	12.7	9	1.8	90	.009																	
12.7	13.7	960	1.0	100	.009																	
13.7	16.0	1	2.3	100	.022																	
16.0	18.9	2	2.9	100	.005																	
18.9	20.4	3	1.5	100	.005																	
20.4	22.0	4	1.6	100	.005																	
22.0	24.0	5	2.0	100	.009																	
24.0	26.0	6	2.0	100	.035																	
26.0	28.0	7	2.0	100	TR																	
28.0	30.0	8	1.8	88	.005																	
30.0	32.3	9	2.3	100	.011																	
32.3	35.0	970	2.2	83	.014																	
35.0	38.1	1	2.2	71	.009																	
38.1	40.2	2	1.8	86	TR																	
40.2	41.4	3	1.0	77	.008																	
42.3	43.6	4	.86	86	.001																	
43.6	45.0	5	1.4	100	.010																	
45.0	47.0	6	2.0	100	.028																	

Hole No. 25 Page No. 1 of 4
 Coordinates: _____ N _____ E
 Collar elev. 1645 m Bearing DUE EAST
 Inclination -80 Total Depth 106.1 m

Date Started OCT 1/80
 Date Finished OCT 6/80
 Ref. to Claim Corner _____
 Logged by H. Roggach

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE: 95.0%
0-6.1									Caseing		
6.1-136									Quartz Monzonite		
									Pink-green colour. Minor randomly oriented Qtz carb. stringers 5% dms Biotite 1% dms Pyrite		
136-142									White Sulf Breccia		
									Medium to dark green. Contact 70° contains minor (.5%) dms Pyrite		
142-78.3									Quartz Monzonite		
									Pink-green colour. Minor randomly oriented Qtz carb stringers 5% dms Biotite 1% dms Fe S ₂ .		
15.8-									7cm gauge 90° to N/E		
27.5-29.0									Minor dms Chalcopyrite		
30.3-38.2									Quartz Monzonite has been broken and reoriented to form a breccia. Gauge slips approx every 1/2 m. at 35° contains minor dms Pyrite. 37.3-38.2 fault zone gauge.		

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS	AVE. CORE REC'Y/HOLE
										39.5-39.1 Fault zone gangue	
										40.5-40.7 Fault zone gangue	
										45.7-46.0 Fault zone gangue	
										46-47.0 Core is slightly leached	
										47.0-52.0 Core is fairly fractured and fracture surfaces are Ferruginous stained	
										66.0-66.1 Fault zone gangue	
										66.1 Core is almost barren, only minor Pyrite	
										70.2-78.3 Minor Ankerite = minor Pyrite mineralization	
										76.8-78.3 Core is very fractured and faulted.	
										78.3 - 94.2 Rhynchonella Tuff Breccia	
										light to medium green-brown mottled. Contains 5% randomly oriented P-L stringers. Contact 80°	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS	AVE. CORE REC'Y/HOLE
										78.3-82.0 There is minor Pyrite, Arsenopyrite, Chalcopyrite & Pyrrhotite mineralization	
										82.0-84.1 Mainly Pyrite & Pyrrhotite mineralization	
										84.1- Bedding at 50° to H of C. This bed is much more siliceous. Mineralization is Pyrite 1% & Pyrrhotite 1% Carbonate stringers cut Quartz stringers	
										81.0-87.9 Core is finely brecciated with contact 50°	
										90.0-94.2 Core is very broken 91.0-91.2 Fault zone.	
										91.5 Minor Arsenopyrite mineralization	
										91.8-92.0 Fault zone.	
										93.8-94.2 Fault zone	
										94.2-96.6 Basalt Dyke	
										Black, medium grained, slightly porous with dark white blebs (Carbonate?)	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
										96.6-106.1 Rhyolite Sulf. Breccia light to medium green-brown mottled. Contains 5% randomly oriented N-E stringers	
										97.0-97.4 Fault zone	
										97.4-106.1 Pyrite & Pyrrhotite mineralization 5% combined.	
										98.1-106.1 Minor Chalcopyrite	
										105.8-106.1 Minor Arsenopyrite mineralization.	
										106.1 EOH	

Ordinal 361 N. 08
 Collar elev. 1640 (APPROX) Bearing DUG EAST
 Inclination -63° Total Depth 106.7

Hole 3

Date Jul 21, '92
 Ref. to Claim Carroll
 Logged by P. Hegarth

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
											98.4
										0.0-6.1 Casing	
										6.1-39.7 Quartz Monzonite	
										<p>Grey-green with distinct phenocrysts of Plagioclase. Approx 5% diss Biotite & 1% diss Pyrite. There is minor Chalcopyrite contained in Qtz-lath stringers (3%) which cut 10:1 at 30, 45, & 65°. There is a very minor amount of Chalcopyrite diss in the Monzonite. There is also minor Arsenopyrite in the Qtz-lath stringers</p>	
										12.8-26.0 Good Arsenopyrite & Chalcopyrite mineralization in stringers. There is also 0.5% diss Pyrrhotite. Mineralization is degrading through the Monzonite	
										26.0 Mineralization is not as strong	
										32.6 7cm brecciated Qtz-lath 45° to N of C with Pyrite, Chalcopyrite, Arsenopyrite & Pyrrhotite mineralization	
										36.5-39.7 Q. Monzonite becomes brecciated with 15% Sarcite making an indistinct contact. Minor Epidote along contact & in.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS	AVE. CORE REC'Y/HOLE	
										39.7-59.8	<p>Dacite Tuff Breccia</p> <p>Medium to dark green 2% dias Pyrite 2-3% randomly oriented Styringite</p> <p>47.6-49.0 There is a foliation or banding at 65° to N₂E and minor dias Chalcopyrite & Pyrrhotite</p> <p>54.2 Bedding at 45° to N₂E</p> <p>59.2-59.8 Zone of Chalcopyrite, Arsenopyrite & Pyrrhotite mineralization. Core is slightly more siliceous.</p> <p>59.8-60.0 Quartz Monzonite</p> <p>Pink-green colour. Minor dias Pyrite</p> <p>60.0-106.7 Dacite Tuff Breccia</p> <p>As above.</p> <p>60.8-62.5 Brecciated bed 45° to N₂E 40% Carbonate & 30% Quartz the remainder Dacite with Pyrite, Pyrrhotite Chalcopyrite & Arsenopyrite mineralization</p>	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
										67.8-68.0 Fault zone gouge	
										69.2 1cm stringer with 30% FeHs	
										75.3 Minor Arsenopyrite in 1cm Qtz-Carb stringer	
										76.0-78.4 Minor Arsenopyrite & Chalcopyrite mineralization in Qtz-Carb stringers (5%)	
										78.4-79.8 A re-brecciated siliceous bed with 1% finely dis Pyrite	
										79.8-86.0 Core is slightly more siliceous.	
										86.0 Core is more basic and contains only minor Pyrite	
										104.0-104.1 Fault zone gouge	
										EOH 106.7	

Page No. _____ of _____
 Co. _____ to: 61 _____ 9 _____ E
 Collar elev. 1640 (APPROX) Bearing DUE EAST
 Inclination -60° Total Depth 106.7 M

Date Started 1/6/50
 Date Finished 2/1/50
 Ref. to Claim Corner _____
 Logged by R. H. Gault

Depth Interval		CORE							Depth Interval		SLUDGE				
From	To	Sample No.	Inches Rec.	% Rec.	ASSAY			L & A	From	To	Sample No.	Lbs. Rec.	% Rec.	ASSAY	
6.1	8.0	200	1.5	81	.011			.0209							
8.0	10.0	276	1.6	81	.206			.4120							
10.0	12.0	7	1.8	88	.017			.0340							
12.0	14.0	8	1.9	95	.056			.1120							
14.0	16.0	9	2.0	100											
16.0	18.0	280	2.0	100	.052			.1040							
18.0	20.0	1			.036			.0720							
20.0	22.0	2			.092			.1840							
22.0	24.0	3			.023			.0460							
24.0	26.0	4			.021			.0420							
26.0	28.0	5			.008			.0160							
28.0	30.0	6			.018			.0360							
30.0	32.0	7			.016			.0320							
32.0	34.0	8			.091			.1820							
34.0	36.5	9			.019			.0285							
36.5	38.0	290			.085			.1275							
38.0	39.7	1			.005	6.1-38.0		1.4489							
39.7	42.0	2			.019			29.9							
42.0	44.0	3			.005										
44.0	46.0	4			.030										
46.0	48.0	5		↓	TR										

$\frac{1.4489}{29.9} = 0.49$
 $\frac{0.49}{31.9}$

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
											96.6%
0.0-4.6										Casing	
4.6-39.9										Quartz Monzonite	
										Grey-green colour. Contains minor Pyrite, Chalcopyrite and Pyrrhotite mineralization 2% fine randomly oriented Qtz-Carb stringers	
										17.4 2cm stringer of Arsenopyrite minor Chalcopyrite 50° to H&C.	
										20.0 Increase in the amount of disseminated Chalcopyrite	
										22.5 2cm stringer of Arsenopyrite and minor Chalcopyrite 30° to H&C.	
										23.5 Minor Arsenopyrite	
										24.6-39.9 Minor Arsenopyrite disseminated throughout the core.	
39.9-47.0										Saite Tuff Breccia	
										Medium to dark green. Sharp contact 80° to H&C. 0.5% randomly oriented Q-C stringers. Minor disse Pyrite & Pyrrhotite and Chalcopyrite mineralization	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS	AVE. CORE REC'Y/HOLE
										41.8 Minor disse Arsenopyrite	
										47.0-47.3 Quartz Monzonite	
										Contact 50° to A&C well mineralized with Pyrite (5%) and minor Chalcopyrite, Arsenopyrite & galena	
										47.3-95.2 Sate Tuff Breccia	
										As above.	
										51.6 2cm Qtz-Carb stringer with 10% Arsenopyrite & 2% Chalcopyrite mineralization	
										53.4 10cm Qtz-Carb stringer with 25% Arsenopyrite & 2% Chalcopyrite mineralization	
										59.0-59.5 Good Arsenopyrite and Chalcopyrite min in 3% Q-C stringer	
										63.1 Minor disse Chalcopyrite	
										70.1 2cm Qtz-Carb stringer 45° to A&C with 10% Arsenopyrite and 30% Pyrite.	
										73.1 2cm Qtz-Carb stringer 45° to A&C with 5% Arsenopyrite and 30% Pyrite.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS	AVE. CORE REC'Y/HOLE
										78.5 Minor Chalcopyrite	
										89.1 Minor disc Anseropyrite	
										92.2-92.4 Fault zone gauge contains 10% Pyrite mineralization	
										94.8-95.2 Finely brecciated zone with 20% Chl. Carb. and 10% Pyrite with minor Pyrrhotite, Anseropyrite and sphalerite mineralization	
										95.2-106.4 Rhyolite Tuff Breccia	
										light green-brown mottled. Contains fine disc Pyrite & Pyrrhotite & minor Chalcopyrite mineralization. 5% randomly oriented Chl. Carb. stringers	
										98.3-98.8 Fault zone gauge	
										101.1-101.6 Very siliceous zone with 8% disc Pyrite and minor Chalcopyrite, Pyrrhotite and Anseropyrite mineralization.	
										106.4	

Pr. COR SANDSTONE ation VE 106
 Hole No. DDH-28 Page No. 1 of 4
 Coordinates: 9645 N 9840 E
 Collar elev. 1610 (APPROX) Bearing DUE EAST
 Inclination -58° Total Depth 811 metres

Director LANGRISH PHOENIX
 Date Started Oct 11 1980
 Date Finished Oct 12 1980
 Ref. to Claim Corner
 Logged by P. Hignorth

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE: 93.0%
										00-6.4 Casing	
										6.4-11.1 Ductile Sulf Breccia Medium to dark green-brown mottled. 1% disc Pyrite and 3% Quartz-lath stringers mainly at 30°-50° to H.C. Cu is very broken and Limonite stained	
										11.1-14.1 Quartz Monzonite Contact 50° to H.C. Grey-green colour. Minor disc Pyrite & 3% disc Biotite	
										14.1-14.7 Ductile Sulf Breccia Medium to dark green-brown mottled. 2% disc FeS ₂ 1% randomly oriented Qtz-lath stringers	
										14.7-15.0 Quartz Monzonite As above.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS	AVE. CORE REC'Y/HOLE
										150-350 Rhyolite Tuff Breccia light gray, non-sorted, 5% randomly oriented oriented quartz-lath strings. 2% finely disseminated epidote, minor pyroxene.	
										150-165 Same as well mineralized with 3% disseminated and 6% arsenopyrite with minor epidote Chalcopyrite, and pyroxene.	
										18.0 Quartz-lath strings aligned along bedding at 18.0	
										27.5 Minor arsenopyrite	
										28.7 Minor arsenopyrite. Very siliceous zone.	
										31.4 Minor arsenopyrite. Very siliceous zone.	
										33.0-341 Breccia Tuff Breccia Medium green-brown, sorted. 5% randomly oriented Qtz-lath strings 1% finely disseminated. Minor disseminated epidote (minor disseminated) pyroxene.	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE. CORE REC'Y/HOLE:
										38.2 20% Arsenopyrite in 1cm Al ₂ -carb stringer	
										38.5-41.9 Core is very broken.	
										43.7-46.9 Siliceous zone of distinct brecciation. Light grey matrix with 30% brown breccia pieces. Initial contact is indistinct but bottom contact is sharp at 60° contains Pyrite (1%) and minor Arsenopyrite & Pyrrhotite mineralization throughout.	
										48.8 7cm Al ₂ -carb stringer 80% to H ₂ C with 30% Pyrite & 1% Arsenopyrite.	
										50.3-51.0 Siliceous zone with good Pyrite, Arsenopyrite, Chalcopyrite & Pyrrhotite mineralization.	
										52.5-58.0 Core is very broken.	
										60.3 Minor dust Arsenopyrite	
										61.6-61.9 Fracture zone gangue	
										63.4-64.4 Siliceous zone. Contact & banded at 70° to H ₂ C with good Pyrite (7%) and Arsenopyrite (2%) mineralization, and minor dust Sphalerite	

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS	AVE. CORE REC'Y/HOLE
										71.5 3cm stringer at 60° to H.P.C. with 50% Pyrite 90% Arsenopyrite and 10% Sphalerite mineralization	
										72.4-73.4 0.5% diss Arsenopyrite mineralization in Calcite	
										73.4-78.0 Gradual change to a siliceous zone. Banding at 70° to H.P.C. at 75.9 & 77.4. There is good Pyrite Arsenopyrite, Chalcopyrite & Pyrrhotite mineralization diss & few stringers	
										81.7 EOH (frozen cut)	

Project ESM

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Hole No. 28

Page No. 1 of

Date Started October

Coordinates: 9645

N 9840 E

Date Finished Oct 12 1960

Collar elev. 1610 (APPROX)

Bearing DUE EAST

Ref. to Claim Corner

Inclination -58°

Total Depth 861

Logged by R. H. Haggall

Depth Interval		CORE						Depth Interval		SLUDGE									
From	To	Sample No.	Inches Rec.	% Rec.	Av. σ_{27}	ASSAY				From	To	Sample No.	Lbs. Rec.	% Rec.	ASSAY				
6.4	9.0	380	2.2	86	.052														
9.0	11.1	1	2.1	100	.114														
11.1	12.5	2	1.4	100	.005														
12.5	14.1	3	1.6	100	TR														
14.1	14.7	4	0.6	100	.007														
14.7	15.0	5	0.3	100	TR														
15.0	16.5	6	1.5	100	.014														
16.5	18.0	7	1.5	100	.006														
18.0	20.0	8	2.0	100	.013														
20.0	22.0	9	2.0	100	TR														
22.0	24.0	390	2.0	100	.005														
24.0	26.0	1	2.0	100	.007														
26.0	28.0	2	2.0	100	.016														
28.0	30.0	3	2.0	100	.024														
30.0	32.0	4	2.0	100	.054														
32.0	33.0	5	1.0	100	.463														
33.0	35.0	6	2.0	100	.009														
35.0	37.0	7	2.0	100	.041														
37.0	39.0	8	2.0	100	.005														
39.0	41.0	9	1.7	93	.007														
41.0	43.7	400	2.4	89	.129														

Depth Interval		CORE					Depth Interval		SLUDGE				
From	To	Sample No.	Inches Rec.	% Rec.	ASSAY	From	To	Sample No.	Lbs. Rec.	% Rec.	ASSAY		
43.7	45.2	401	1.5	100	TR								
45.2	46.9	2	1.7	100	.118								
46.9	49.0	3	2.1	100	.051								
49.0	51.0	4	2.0	100	.005								
51.0	53.0	5	2.0	100	TR								
53.0	55.0	6	2.0	100	.005								
55.0	57.0	7	2.0	100	TR								
57.0	59.0	8	2.0	100	TR								
59.0	61.0	9	2.0	100	.005								
61.0	63.4	410	2.4	100	.033								
63.4	64.4	1	1.0	100	.026								
64.4	66.0	2	1.6	100	.026								
66.0	68.0	3	2.0	100	.012								
68.0	70.0	4	1.7	85	.007								
70.0	72.0	5	2.0	100	.012								
72.0	73.4	6	1.3	93	.007								
73.4	75.0	7	1.2	75	.007								
75.0	77.0	8	2.0	100	.007								
77.0	78.0	9	1.0	100	.028								
78.0	79.5	420	1.5	100	TR								
79.5	81.1	421	1.6	100	.019								