

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT



REPORT ON TRENCHING

ON

STERLING 1-3, 5, 6, 9-11, 13, 14 MINERAL CLAIMS

SITUATED AT

63°49'N; 136°58'W

MAYO MINING DISTRICT, YUKON TERRITORY

NTS: 115P/15

August 20 to August 26, 1980



15 DECEMBER 1980

A.S. DENTON

TABLE OF CONTENTS

	<u>Page</u>
Claim List	1
Introduction	3
Location and Access	4
Geology	4
Trench Geology	4
Mineralization	4
Conclusion and Recommendations	5
Appendix	
A Printout of Assays	
B Affidavit	
C Statement of Expenditures	
D Statement of Qualifications	
Plates	
80-1 Location Map	Scale: 1:2,500,000
80-2 Claim Map	½ mile to 1 inch
80-3 Trench Location Map	1:5,000
80-4 Trench Geology	1:50

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

NTS: 115P/15

15 DECEMBER 1980

REPORT ON TRENCHING

ON

STERLING 1-3, 5, 6, 9-11, 13, 14 MINERAL CLAIMS

SITUATED AT

63⁰49'N; 136⁰58'W

MAYO MINING DISTRICT, YUKON TERRITORY

Located claims on which assessment credits are requested:

<u>Claim</u>	<u>Record No.</u>	<u>Date Recorded</u>	<u>Date Due</u>	<u>Assessment Credit</u>	<u>Amount</u>
Sterling 1	Y56122	16 August 1971	16 May 1981	2 years	\$ 200
Sterling 2	Y56123	16 August 1971	16 May 1981	"	"
Sterling 3	Y56124	16 August 1971	16 May 1981	"	"
Sterling 5	Y56126	16 August 1971	16 May 1981	"	"
Sterling 6	Y56127	16 August 1971	16 May 1981	"	"
Sterling 9	Y56120	12 August 1971	12 May 1981	"	"
Sterling 10	Y56121	12 August 1971	12 May 1981	"	"
Sterling 11	Y56130	16 August 1971	16 May 1981	"	"
Sterling 13	Y56132	16 August 1971	16 May 1981	"	"
Sterling 14	Y56133	16 August 1971	16 May 1981	"	"

Trenching was done on these claims between 20 August and 26 August 1980.

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

NTS: 115P/15

15 DECEMBER 1980

REPORT ON TRENCHING

ON

STERLING 1-3, 5, 6, 9-11, 13, 14 MINERAL CLAIMS

MAYO MINING DISTRICT, YUKON TERRITORY

INTRODUCTION

The STERLING claims were staked in August 1971 to cover the source area of anomalous Ag geochemistry in silt samples collected from the headwaters of Fortymile Creek (Northern Cordilleran Mineral Inventory, 1972; Archer, Cathro and Associates Ltd.).

The region is underlain by Proterozoic sericite-chlorite schists and quartzites. This sequence is intruded by granitic plugs believed to be Cretaceous in age.

This report covers the results of trenching done between 20 August and 26 August 1980.

The object of the work was to determine the extent of a zone of rusty brecciated quartz-tourmaline rock discovered on the banks of Fortymile Creek and to test it for tin mineralization.

Personnel employed during this program were:

<u>Name</u>	<u>Period</u>	<u>Address</u>
A.S. Denton	20 August - 26 August	5110 B - 5th Avenue Whitehorse, Yukon Y1A 1L4
G.I. Heminsley	20 August - 26 August	5110 B - 5th Avenue Whitehorse, Yukon Y1A 1L4
J.D. Kapusta	20 August - 26 August	5110 B - 5th Avenue Whitehorse, Yukon Y1A 1L4
M. MacLean	20 August - 26 August	5110 B - 5th Avenue Whitehorse, Yukon Y1A 1L4
M.E. Naylor	20 August - 26 August	5110 B - 5th Avenue Whitehorse, Yukon Y1A 1L4

LOCATION AND ACCESS

The STERLING claims are located 60 km northwest of Mayo, Yukon Territory at the headwaters of Fortymile Creek. The claims are in the Mayo Mining District at 63°49'N latitude and 136°58'W longitude, NTS 115P/15. The claims are located above and below tree line in mountainous terrain. Access is by helicopter based at Mayo.

GEOLOGY

The STERLING group is underlain by silvery-grey, brown and black sericite-chlorite schists and quartzites. These metasediments are part of the Yukon Group schists of Proterozoic age. Schistosity and bedding, which appear to be roughly coincident, dip gently to the north.

Intruding this unit are granitic plugs, probably of Cretaceous age. This unweathered intrusive is tan to grey in colour, fine to medium grained and occasionally contains phenocrysts of biotite and hornblende in a fine grained groundmass of quartz and feldspar. Locally, this unit contains up to 5% pyrite and lesser amounts of arsenopyrite.

Near vertical quartz veins cut the schist and tourmalinization is common along parts of the creek near the trench.

TRENCH GEOLOGY

The trench is located 670 m in a direction of 176° from Post #1 of Sterling 3, (See Plate 80-3). An area 6.5 x 10.5 m was trenched to a depth of approximately 1 m along the bank of Fortymile Creek. Approximately 68 m³ or 90 yd³ of material were removed. Overburden consisting of soil, roots and rock fragments was removed, both manually, and with the aid of a high pressure water hose. (See Plate 80-4).

The breccia is composed mainly of angular fragments of white quartz, usually less than 10 cm in diameter suspended in a fine grained black matrix. Some fragments of quartz schist and silvery black phyllite are also present. The matrix consists of tourmaline, chlorite, sericite, quartz and pyrite. The rest of the rock in the trench consists of weakly brecciated, rusty quartz schist and phyllite frequently cut by minor quartz veins.

The schists regionally dip 10 - 20° to the north and do not appear to have been deformed during emplacement of the breccia zone. Silicification and tourmalinization appear to be the main effects of alteration in this local area.

MINERALIZATION

Veins of massive pyrite up to 0.5 m wide outcrop in the creek about 350 m upstream from the trench. These carry minor sphalerite, galena and chalcocopyrite. Cassiterite was not observed in the trench and the source area of cassiterite-bearing boulders found in the creek has not been located.

Twenty-three rock samples from the trench were analysed by the fire assay method. The Cu, Pb, Zn and Sn assays were performed at Cominco's Exploration Research Laboratory in Vancouver under the supervision of Mr. Frank Kiss, Senior Chemist. The Ag assays were performed at Chemex Labs Ltd. in North Vancouver. The results are listed on computer printout sheets, copies of which are attached to this report. No tin mineralization was observed and assays of rock samples taken from the trench are geochemically highly anomalous (100 - 700 ppm range), but far short of ore grade.

CONCLUSION AND RECOMMENDATIONS

Trenching uncovered a breccia zone, however no significant tin mineralization is associated with it. Although assays were discouraging, the rocks are geochemically anomalous in tin and further trenching is recommended to follow the breccia zone and to locate possible associated tin mineralization.

Submitted by:



A.S. Denton
Geologist

Endorsed by:



D.L. Cooke, P. Eng.
Senior Geologist

Approved for Release by:



G. Harden
Manager, Western District
Exploration

ASD/cs

COMINCO LTD.

EXPLORATION

NTS: 115P/15

WESTERN DISTRICT

15 DECEMBER 1980

APPENDIX A

PRINTOUT OF ASSAYS

NEL

JOB V80 - 114

REPORTING DATE 25 NOV 1980

SAMPLE NUMBER	FIELD NUMBER	TYPE	Cu(1) %	Pb(1) %	Zn(1) %	Ag(1) oz/t	Sn(1) %
R80 20735	JDK 1	R	<.01	<.01	0.01	0.08	0.01
R80 20736	JDK 2	R	<.01	<.01	0.05	0.10	0.03
R80 20737	JDK 3	R	<.01	0.11	<.01	0.20	0.02
R80 20738	JDK 4	R	<.01	0.05	0.01	0.10	0.03
R80 20739	JDK 5	R	<.01	0.02	0.02	0.10	0.01
R80 20740	JDK 6	R	<.01	0.01	0.02	0.14	0.01
R80 20741	JDK 7	R	0.01	<.01	0.04	0.10	0.03
R80 20742	JDK 8	R	<.01	0.01	0.02	0.08	0.01
R80 20743	JDK 9	R	<.01	0.01	0.02	0.10	0.03
R80 20744	JDK 10	R	<.01	<.01	0.02	0.02	0.02
R80 20745	JDK 11	R	0.01	<.01	<.01	0.16	0.02
R80 20746	JDK 12	R	<.01	0.01	<.01	0.08	0.04
R80 20747	JDK 13	R	<.01	<.01	<.01	0.06	0.02
R80 20748	JDK 14	R	<.01	0.01	<.01	0.02	0.03
R80 20749	JDK 15	R	<.01	<.01	0.02	0.14	0.01
R80 20750	JDK 16	R	0.01	0.01	0.04	0.16	0.03
R80 20751	JDK 17	R	<.01	0.01	<.01	0.12	0.04
R80 20752	JDK 18	R	<.01	<.01	<.01	0.02	0.02
R80 20753	JDK 19	R	<.01	<.01	<.01	0.06	0.03
R80 20754	JDK 20	R	0.01	0.01	<.01	0.12	0.05
R80 20755	JDK 21	R	<.01	0.02	<.01	0.02	0.03
R80 20756	JDK 22	R	<.01	0.01	0.01	0.14	0.07
R80 20757	JDK 23	R	<.01	<.01	<.01	0.10	0.04

REC
DEC
REC

WHERE ANALYSIS REQUESTED BUT NO VALUES SHOWN, RESULTS ARE TO FOLLOW

ANALYTICAL METHODS

Ag(1) FIRE ASSAY
Cu(1) Pb(1) Zn(1) Sn(1) ASSAY

COMINCO LTD.

EXPLORATION

NTS: 115P/15

WESTERN DISTRICT

15 DECEMBER 1980

APPENDIX B

IN THE MATTER OF THE YUKON QUARTZ
MINING ACT AND IN THE MATTER OF
TRENCHING CARRIED OUT ON MINERAL
CLAIMS STERLING 1-3, 5, 6, 9-11,
13, 14 LOCATED IN THE MAYO MINING
DIVISION, YUKON TERRITORY, MORE
PARTICULARLY NTS: 115P/15

AFFIDAVIT

I, A.S. Denton, of the City of Whitehorse, in the Yukon Territory, Geologist,
make oath and say -

- 1) THAT I am employed as a geologist by Cominco Ltd. and, as such have a personal knowledge of the facts to which I hereinafter depose;
- 2) THAT annexed hereto and marked as "Appendix C" to this my affidavit is a true copy of expenditures for trenching carried out on mineral claims STERLING 1-3, 5, 6, 9-11, 13, 14;
- 3) THAT the said expenditures were incurred between the 20th day of August 1980 and the 26th day of August 1980, for the purpose of mineral exploration on the above noted claim group.

A.S. Denton

A.S. Denton
Geologist

APPENDIX "C"

STATEMENT OF EXPENDITURES

STERLING MINERAL CLAIMS

MAYO M.D., YUKON

TRENCHING AUGUST 20 - 26, 1981

Salaries			
	8 Man days	@ \$80.96/Day . . . \$	647.68
	3 Man days	@ \$87.12/Day . . .	261.36
Camp Cost			419.89
Helicopter			310.48
Geochemistry	23 rocks	@ \$25.25 . . .	580.75
			<u>580.75</u>
			\$ 2,220.16

COMINCO LTD.

EXPLORATION

NTS: 115P/15

WESTERN DISTRICT

15 DECEMBER 1980

APPENDIX D

STATEMENT OF QUALIFICATIONS

I, Alexander Denton, with business address at 5110 B - 5th Avenue, Whitehorse, Yukon Territory, do hereby certify that I have supervised the field work and have assessed and interpreted the data resulting from the trenching on the STERLING mineral claims.

I also certify -

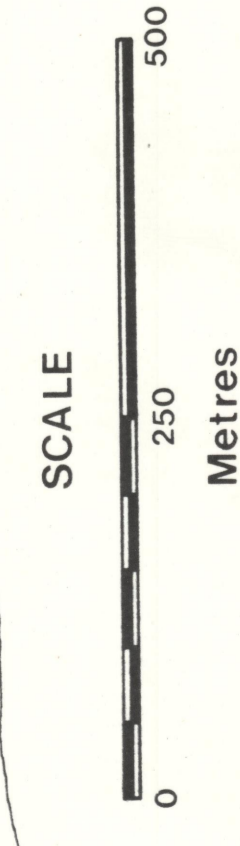
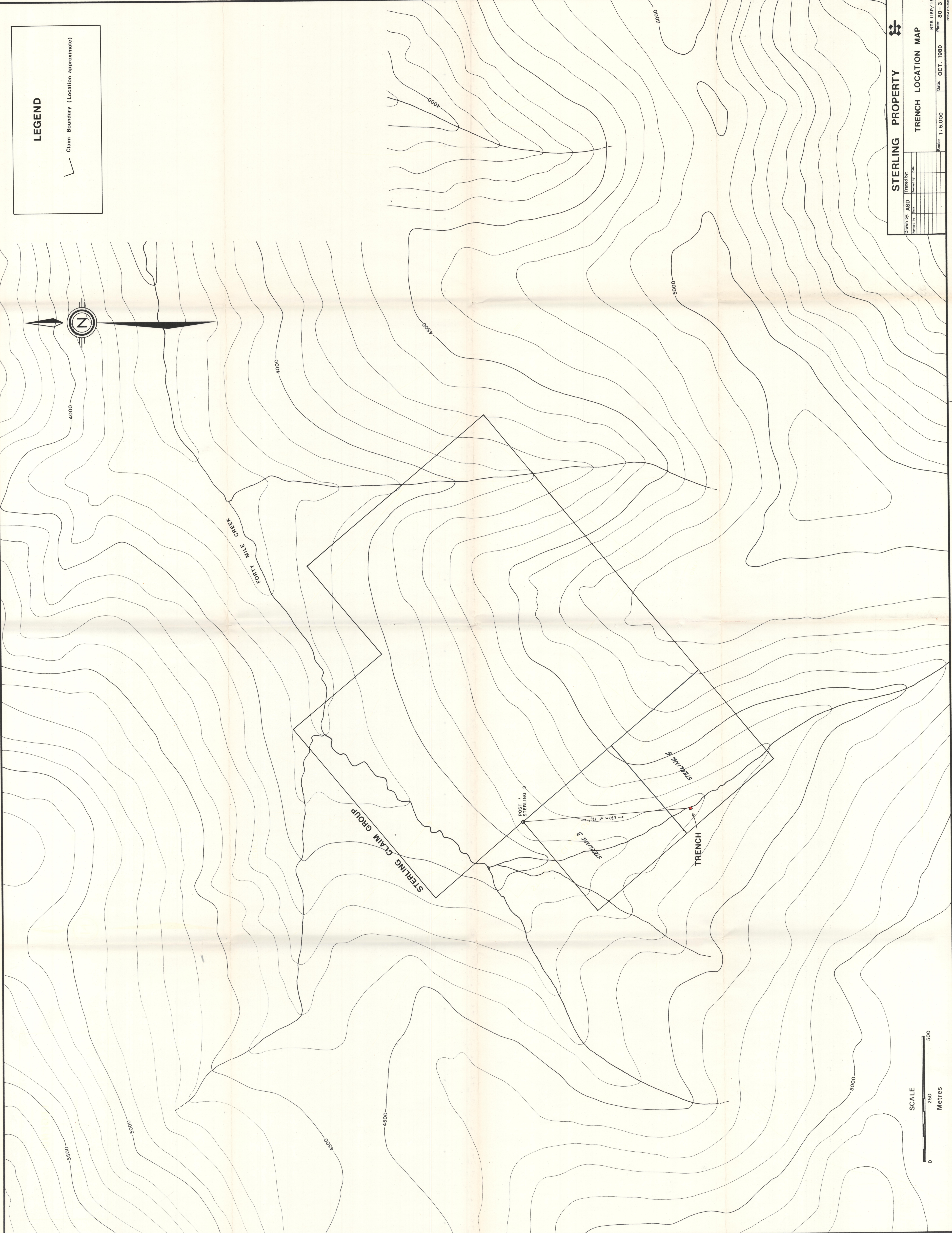
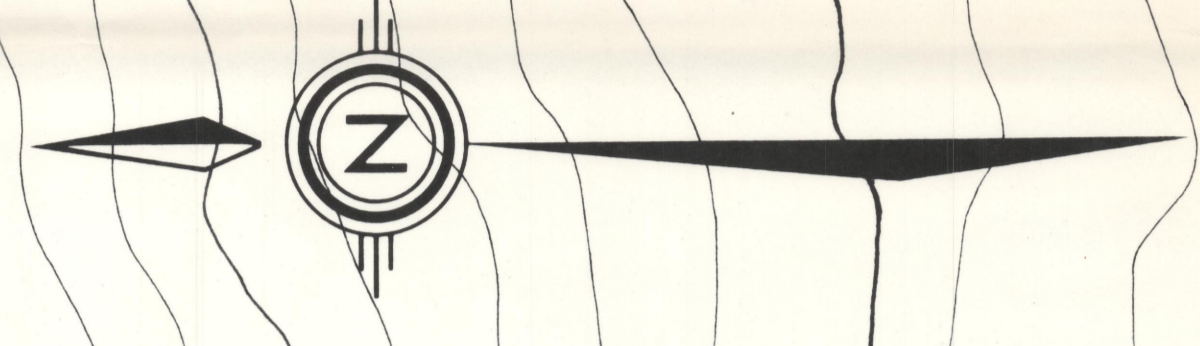
- 1) THAT I am a graduate of the University of Calgary, B. Sc. Geology (1978).
- 2) THAT I have engaged in mineral exploration in Canada since graduation.

Respectfully Submitted: Alexander S. Denton

Alexander S. Denton

LEGEND

Claim Boundary (Location approximate)



SCALE
Metres

STERLING PROPERTY

Drawn By: ASD	Traced By:
Checked By:	Reviewed By:
Issue:	Date:

TRENCH LOCATION MAP

NTS 1157/15
Scale: 1:5,000
Date: OCT. 1980
Form 80-3
FORM 80-300