

**1995 ASSESSMENT REPORT**

**Dolores-Iota Properties**

**MAYO MINING DISTRICT,  
YUKON TERRITORY, N.T.S. 106C 13 & 14**



**GEOLOGICAL , GEOCHEMICAL & GEOPHYSICAL**

**IOTA Mineral Claims 1 to 40  
RUBY Mineral Claims 1 to 40**

**Exploration program conducted between:  
July 22 to October 02, 1995**

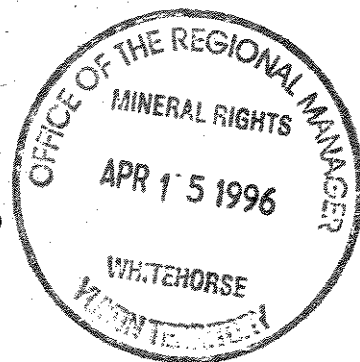
**Prepared for**

**WEST LAKE LTD.**

**St. Vincent and Grenadines Corp.  
office at 50 Talker, CH 8001, Zurich SWITZERLAND**

**by JOHN. H. HAJEK  
Mining & Metallurgical Consultant**

**ZELON ENTERPRISES LTD.  
4440 Regency place,  
WEST VANCOUVER, B.C. V7W 1B9  
(604) 926 0593 & 926 1401**



# DOLORES-IOTA EXPLORATION PROJECT

## TABLE of CONTENTS

	Page
<b>I INTRODUCTION . . . . .</b>	<b>2-11</b>
1. Property and ownership . . . . .	2-8
2. Location and Exploration Objectives . . . . .	9-10
3. Personnel and field time distribution . . . . .	.10-11
<b>II GEOLOGICAL &amp; MINERAL OCCURRENCES . . . . .</b>	<b>.12-22</b>
1. Regional Geology and structure . . . . .	12-17
a) Regional Geology . . . . .	.12
b) Breccia Bodies and Intrusives . . . . .	.16
c) Geological Structure . . . . .	.16-17
2. Property Geology . . . . .	17-18
3. Conclusion . . . . .	18-19
<b>III GEOPHYSICAL SAMPLING . . . . .</b>	<b>23-25</b>
1. Instrumentation . . . . .	23
2. Property Coverage . . . . .	23-25
<b>IV GEOCHEMICAL ORIENTATION SURVEY . . . . .</b>	<b>26-36</b>
1. Scree Slope Soil Geochemical Enrichment . . . . .	26-31
2. Rock Litho geochemistry . . . . .	.31-35
<b>V RESULTS EVALUATION . . . . .</b>	<b>36</b>
<b>VI AFFIDAVIT OF EXPENDITURES . . . . .</b>	<b>37-38</b>
<b>VII CONCLUSION AND RECOMMENDATIONS. . . . .</b>	<b>39</b>

## LIST OF FIGURES & ILLUSTRATIONS

		Page #
Figure 01.	YUKON location map . . . . .	01
“ 02	IOTA- RUBY claims . . . . .	06
“ 02B	IOTA Work . . . . .	07
“ 02C	RUBY Work . . . . .	08
“ 03	Ogolvie & Wernecke Mtn. Inlier . . . . .	13
“ 04	Yukon Regional Geology . . . . .	14
Figure 05	Intrusive & Stratiform Breccias . . . . .	15
“ 06	Dolores - IOTA Geology . . . . . Indian & Northern Affairs O.F. 1995-6(G)	20-22
“ 07	Magnetometer Survey Location . . . . .	24
“ 08	IOTA Soil & Rock Coverage . . . . .	27
“ 09	RUBY Soil & Rock Coverage . . . . .	28
“ 10	Geochemical Dispersion . . . . .	34-35
Table 01	Table of Formations, Dolores cr. . . . . IOTA-RUBY claims	40-41

## **LIST OF APPENDICES**

### **APPENDIX A**

- Geophysical Magnetic field procedure
- Corrected Field Data and Graphs

### **APPENDIX B**

- 1995 rock sample description
- 1995 assays & geochemical analysis

### **APPENDIX C**

- Petrographic report, Iota locale trench 1

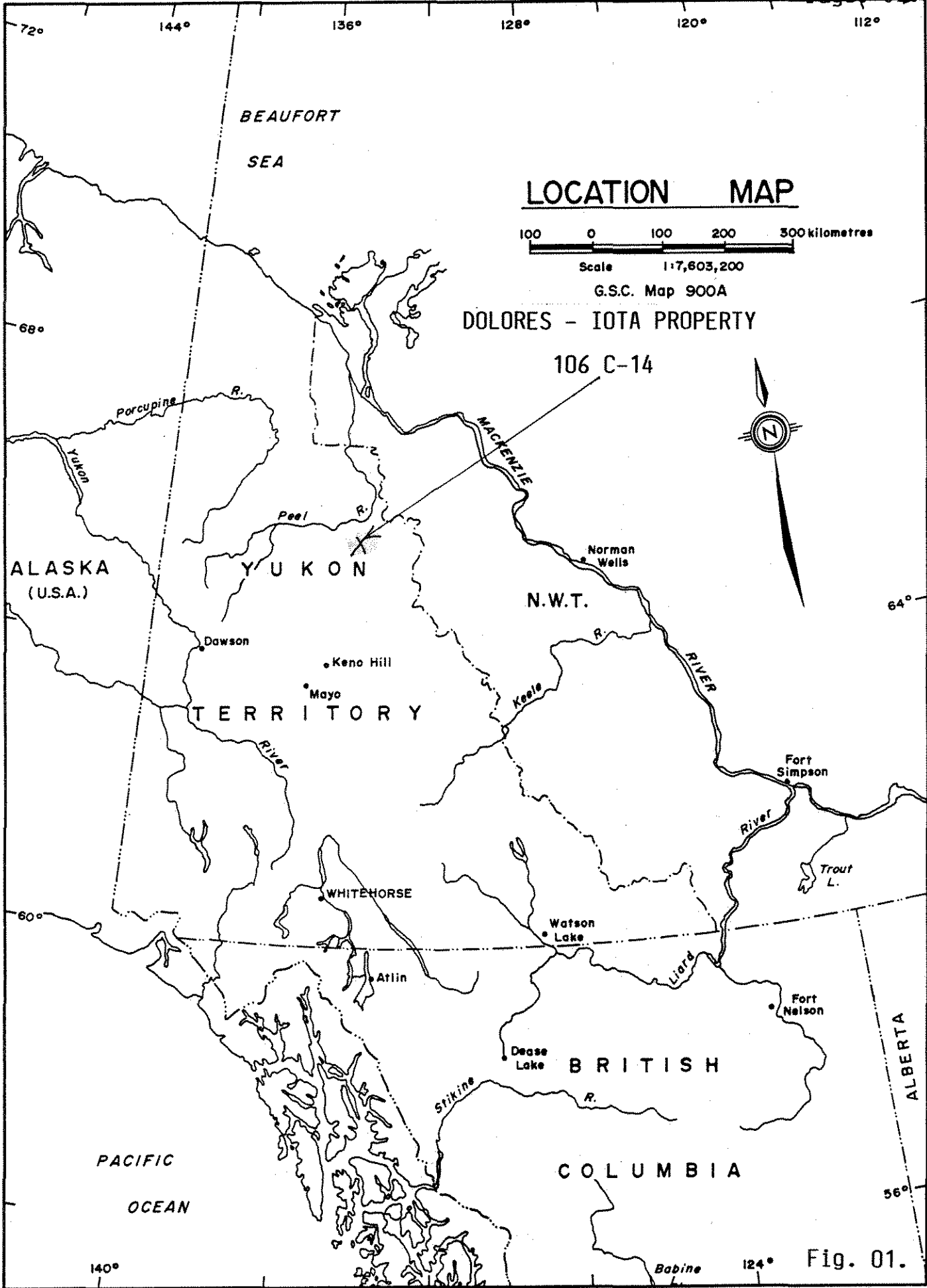


Fig. 01.

## DOLORES-IOTA PROJECT, YT. N.T.S. 106C 13/14

### Summary

- High grade copper and polymetallic ore covers a large area adjacent to a magnetic high iron carbonate stock intrusive breccia at the head water of Tetrahedrite Creek. This zone is cut by the Iota fault, which is also well mineralized with copper-gold-silver, lead-zinc-antimony, and other trace elements such as cobalt occurring in commercial quantities within a certain zoning.

- Exceptional values of gold (2 to 5oz./ton gold & 50 to 300oz./ton silver), are concentrated to the east of tetrahedrite creek and east of the iron rich breccia, along the 2 kilometers of the Iota fault.

### I. INTRODUCTION

The geology of precious metal and copper-antimony-cobalt prospects covered by the Dolores-Iota properties under option to WEST LAKE Ltd. is outlined in this report. The data is based on the exploration program carried out by Zelon Enterprises Ltd. during the period of July 22, 1995 to October 02, 1995 under the direction of J.H. Hajek --a mining Consultant/Geochemist and the writer of this report, (Fig. 1).

This report details geophysical, geological, physical trenching, and geochemical prospecting data taken during the summer of 1995. Mineral occurrences along with copper prospects have attracted exploration projects since 1960 and has been pursued within this program.

It also details expenditures made on behave of a joint venture consisting of MONTORO RESOURCES LTD, a VANCOUVER stock exchange listed company and WEST LAKE LTD.

#### **1. Property and ownership**

The properties are comprised of 64 mineral claims, covering approximately 3200 acres. The claims are registered in the Mayo Mining District, Yukon Territory (Figures 02).

West Lake Ltd., a St. Vincent and Grenadines Corp. office located at 50 Talker, CH 8001, Zurich SWITZERLAND, is in the process of acquiring 80% ownership through an agreement with both Zelon Enterprises Ltd. and the owners who retain a 20 % interest in the group of claims. Original claim ownership are as follows:

**1. Iota Claim Group. 106C-14**

Claim	Grant #	Located	Recorded	Lapse Date	Ownership
IOTA 1	YA43419	Nov 14 1980	Nov 17, 1980	Nov 17, 1996	J.H.
IOTA 2	YA43420	Nov 14 1980	Nov 17, 1980	Nov 17, 1996	J.H.
IOTA 3	YA43421	Nov 14 1980	Nov 17, 1980	Nov 17, 1996	J.H.
IOTA 4	YA43422	Nov 14 1980	Nov 17, 1980	Nov 17, 1996	J.H.
IOTA 5	YA43423	Nov 14 1980	Nov 17, 1980	Nov 17, 1996	J.H.
IOTA 6	YA43424	Nov 14 1980	Nov 17, 1980	Nov 17, 1996	J.H.
IOTA 7	YA43425	Nov 14 1980	Nov 17, 1980	Nov 17, 1996	J.H.
IOTA 8	YA43426	Nov 14 1980	Nov 17, 1980	Nov 17, 1996	J.H.
IOTA 9	YA43427	Nov 14 1980	Nov 17, 1980	Nov 17, 1996	J.H.
IOTA 10	YA43428	Nov 14 1980	Nov 17, 1980	Nov 17, 1996	J.H.
IOTA 11	YA43429	Nov 14 1980	Nov 17, 1980	Nov 17, 1996	J.H.
IOTA 12	YA43430	Nov 14 1980	Nov 17, 1980	Nov 17, 1996	J.H.
IOTA 13	YA43431	Nov 14 1980	Nov 17, 1980	Nov 17, 1996	J.H.
IOTA 14	YA43432	Nov 14 1980	Nov 17, 1980	Nov 17, 1996	J.H.
IOTA 15	YA43433	Nov 14 1980	Nov 17, 1980	Nov 17, 1996	J.H.
IOTA 16	YA43434	Nov 14 1980	Nov 17, 1980	Nov 17, 1996	J.H.
IOTA 17	YA43435	Nov 14 1980	Nov 17, 1980	Nov 17, 1996	J.H.
IOTA 18	YA43436	Nov 14 1980	Nov 17, 1980	Nov 17, 1996	J.H.
IOTA 19	YA43437	Nov 14 1980	Nov 17, 1980	Nov 17, 1996	J.H.
IOTA 20	YA43438	Nov 14 1980	Nov 17, 1980	Nov 17, 1996	J.H.
IOTA 21	YB43502	Sept 24 1994	Oct 4, 1994	Oct 4, 1995	J.H.
IOTA 22	YB43503	Sept 24 1994	Oct 4, 1994	Oct 4, 1995	J.H.
IOTA 23	YB43504	Sept 24 1994	Oct 4, 1994	Oct 4, 1995	D.H.
IOTA 24	YB43505	Sept 24 1994	Oct 4, 1994	Oct 4, 1995	D.H.
IOTA 25	YB43506	Sept 26 1994	Oct 4, 1994	Oct 4, 1995	D.H.
IOTA 26	YB43507	Sept 26 1994	Oct 4, 1994	Oct 4, 1995	D.H.
IOTA 27	YB43508	Sept 26 1994	Oct 4, 1994	Oct 4, 1995	D.H.
IOTA 28	YB43509	Sept 26 1994	Oct 4, 1994	Oct 4, 1995	D.H.
IOTA 29	YB43510	Sept 26 1994	Oct 4, 1994	Oct 4, 1995	D.H.
IOTA 30	YB43511	Sept 26 1994	Oct 4, 1994	Oct 4, 1995	D.H.
IOTA 31	YB43512	Sept 26 1994	Oct 4, 1994	Oct 4, 1995	J.H.
IOTA 32	YB43513	Sept 26 1994	Oct 4, 1994	Oct 4, 1995	J.H.
IOTA 33	YB43514	Sept 26 1994	Oct 4, 1994	Oct 4, 1995	J.H.
IOTA 34	YB43515	Sept 26 1994	Oct 4, 1994	Oct 4, 1995	J.H.
IOTA 35	YB43516	Sept 26 1994	Oct 4, 1994	Oct 4, 1995	J.H.
IOTA 36	YB43517	Sept 26 1994	Oct 4, 1994	Oct 4, 1995	J.H.

IOTA 37	YB43518	Sept 26 1994	Oct 4, 1994	Oct 4, 1995	J.H.
IOTA 38	YB43519	Sept 26 1994	Oct 4, 1994	Oct 4, 1995	J.H.
IOTA 39	YB43520	Sept 26 1994	Oct 4, 1994	Oct 4, 1995	J.H.
IOTA 40	YB43521	Sept 26 1994	Oct 4, 1994	Oct 4, 1995	J.H.
IOTA 41	YB43522	Sept 26 1994	Oct 4, 1994	Oct 4, 1995	J.H.
IOTA 42	YB43523	Sept 26 1994	Oct 4, 1994	Oct 4, 1995	J.H.
IOTA 43	YB43524	Sept 26 1994	Oct 4, 1994	Oct 4, 1995	D.H.
IOTA 44	YB43525	Sept 26 1994	Oct 4, 1994	Oct 4, 1995	D.H.

IOTA 1 to 44 = 44 CLAIMS

## 2. RUBY CLAIM GROUP. 106C14

Claim	Grant #	Located	Recorded	Lapse Date	Ownership
Ruby 5	YB43662	Sept 23, 1994	Oct 05, 1994	Oct 05, 1995	J.H.
Ruby 6	YB43663	Sept 23, 1994	Oct 05, 1994	Oct 05, 1995	J.H.
Ruby 7	YB43664	Sept 23, 1994	Oct 05, 1994	Oct 05, 1995	D.H.
Ruby 8	YB43665	Sept 23, 1994	Oct 05, 1994	Oct 05, 1995	D.H.
Ruby 13	YB43670	Sept 23, 1994	Oct 05, 1994	Oct 05, 1995	J.H.
Ruby 14	YB43671	Sept 23, 1994	Oct 05, 1994	Oct 05, 1995	J.H.
Ruby 15	YB43672	Sept 23, 1994	Oct 05, 1994	Oct 05, 1995	J.H.
Ruby 16	YB43673	Sept 23, 1994	Oct 05, 1994	Oct 05, 1995	J.H.
Ruby 17	YB43674	Sept 23, 1994	Oct 05, 1994	Oct 05, 1995	J.H.
Ruby 18	YB43675	Sept 23, 1994	Oct 05, 1994	Oct 05, 1995	J.H.
Ruby 19	YB43676	Sept 23, 1994	Oct 05, 1994	Oct 05, 1995	D.H.
Ruby 20	YB43677	Sept 23, 1994	Oct 05, 1994	Oct 05, 1995	D.H.
Ruby 21	YB43678	Sept 23, 1994	Oct 05, 1994	Oct 05, 1995	D.H.
Ruby 22	YB43679	Sept 23, 1994	Oct 05, 1994	Oct 05, 1995	D.H.
Ruby 23	YB43680	Sept 23, 1994	Oct 05, 1994	Oct 05, 1995	J.H.
Ruby 24	YB43681	Sept 23, 1994	Oct 05, 1994	Oct 05, 1995	J.H.
Ruby 49	YB43706	Sept 24, 1994	Oct 05, 1994	Oct 05, 1995	D.H.
Ruby 50	YB43707	Sept 24, 1994	Oct 05, 1994	Oct 05, 1995	D.H.
Ruby 51	YB43708	Sept 24, 1994	Oct 05, 1994	Oct 05, 1995	D.H.
Ruby 52	YB43709	Sept 24, 1994	Oct 05, 1994	Oct 05, 1995	D.H.

RUBY 5 to 52 = 20 claims

A TOTAL OF 44 + 20 = 64 claims

Application is herewith made with the MAYO mining recorder to record the 1995 year representation of work for an additional one year period on the following claims grouping, (Fig 02):

(A) IOTA 1, 9, 10, 31, & 32 representing IOTA  
1,2,3,4,5,6,7,8,9,10,31,32,33,34,35 & 36.

\$1,600.00 of WORK to be filled which started August 3, 1995.

31 cubic yards of rock blasting over 8 showings.

each trench is 2 meters long x 1m wide x 0.6m deep

4 men x 5 days = 20 man days/days

line cutting, flagging: 2 men x 1 day = 2 man/days

Geological, geochemical & geophysical = 4 man/days

**TOTAL: 26 man/days with expenditures of \$ 16,316.65**

- (B) IOTA 19, 17, 42, 43, & 44 representing IOTA 11,12,13,14,15,16,17,19,37, 39,40,41,42,43 & 44.

\$1,600.00 of WORK to be filled which started August 3,1995.

82 cubic yards of rock blasting over 6 showings.

each trench is 5 to 15 meters long x 1 to 2 meters wide x 1m deep

4 men x 5 days = 20 man /days

line cutting, flagging: 2 men x 1 day = 2 man/days

Geological & geochemical = 6 man/days

**TOTAL: 28 man/days with expenditures of \$ 17,573.05**

- (C) IOTA 18,20, 21, 23, 24, representing IOTA 18,20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, RUBY 49,50,51 & 52.

\$1,600.00 of WORK to be filled which started August 3,1995.

84 cubic yards of rock blasting over 12 showings.

each trench is 2 to 5 meters long x 1 to 1.5 meters wide x 1m deep

4 men x 10 days = 40 man /days

3000 meters of line cutting, flagging: 2 men x 2 day = 4 man/days

Geological & geochemical = 8 man/days

**TOTAL: 52 man / days with expenditures of \$ 30,053.55**

- (D) RUBY 5, 6, 7, 8, 29 & 30 representing RUBY 5, 6, 7, 8, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23 & 24.

8 cubic yards of rock blasting over 4 showings.

\$1,600.00 of WORK to be filled which started August 03,1995.

each is 2 meters long x 1m wide x 1m deep

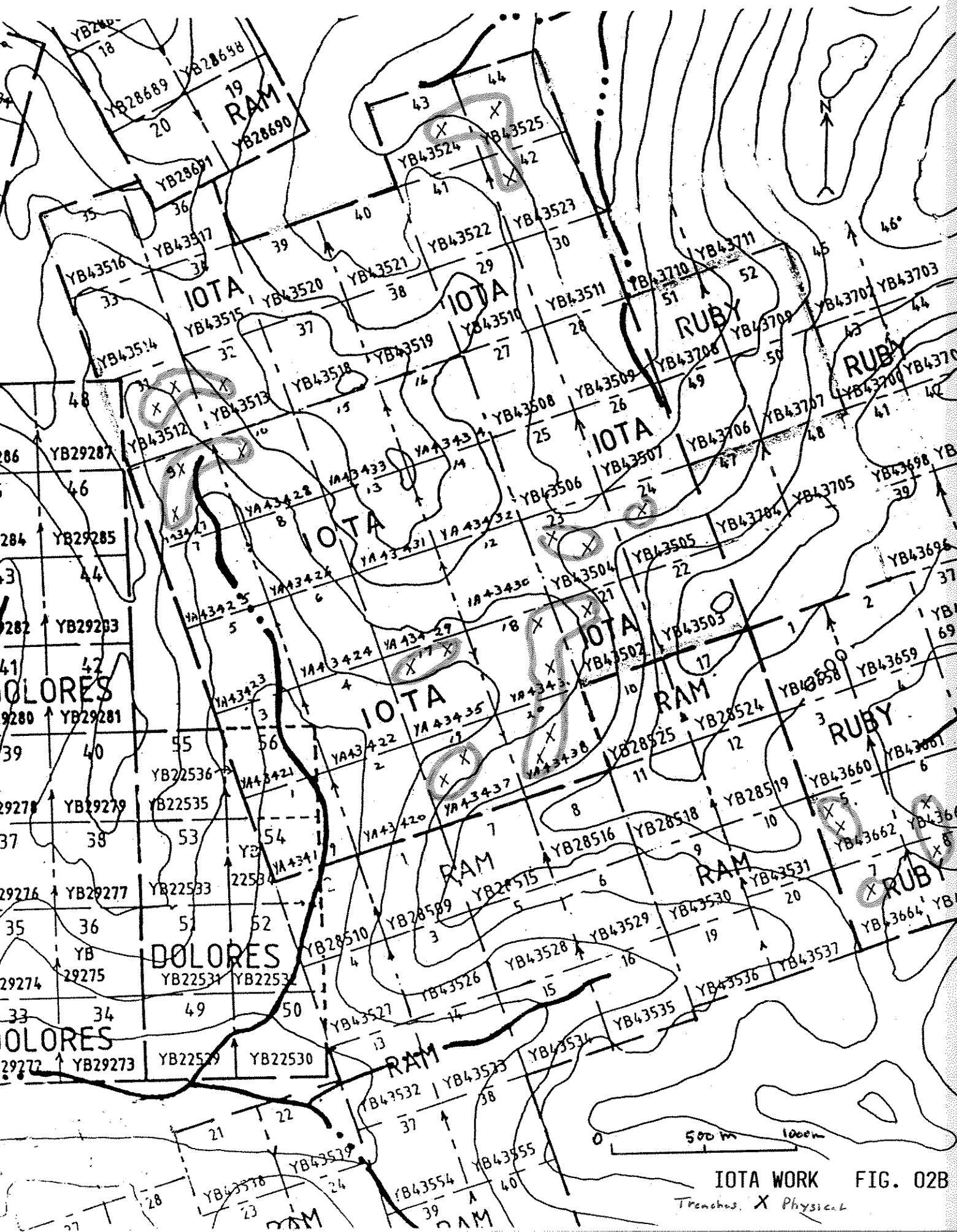
2 men x 1 day = 2 man/days

2000 meters of line cutting, flagging: 2 men x 1 day = 2 man/days

Geological & geochemical = 6 man/days

**TOTAL: 10 man / days with expenditures of \$ 9,806.66**





IOTA WORK FIG. 02B

Trenches. X Physical

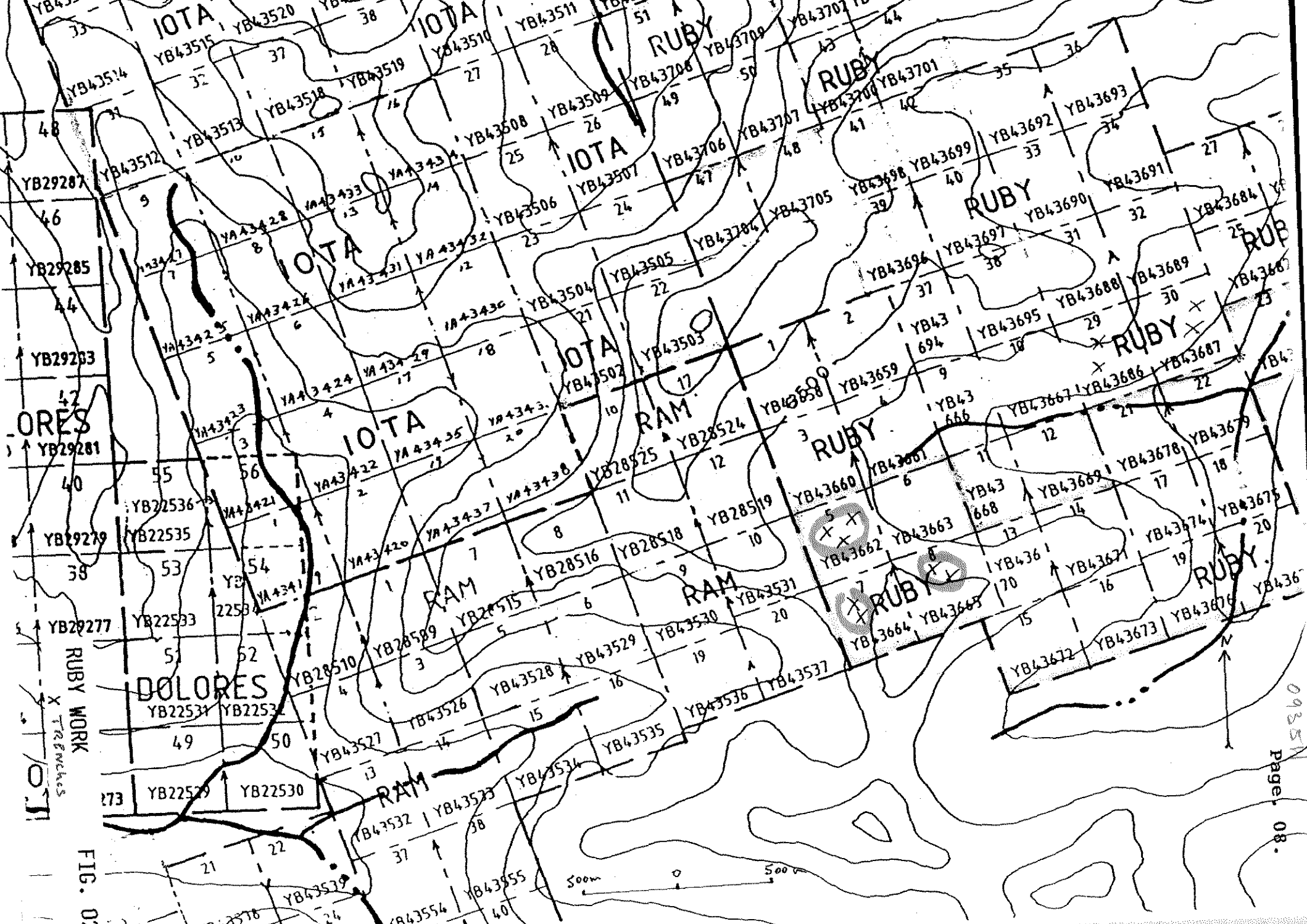


FIG. 007

## 2. Location and Exploration Objectives

The Iota project is located at the headwater of the north fork of the Dolores Creek and comprises of 2 claim groups.

Iota claims are joined to the east by the Ruby claims which are on the Snake River divide. The Dolores-Iota properties present numerous prospects with cobalt, copper, gold, silver and massive sulfides, occurring along fault contacts and often within breccias margins.

The 1995 program concentrated on geological mapping/prospecting, geophysical magnetic data gathering, and geochemical evaluation. Geological mapping are concentrated on the fault breccias and their structural setting.

Geochemical evaluation took into account the overall rock-soil-water movement. The orientation sampling of scree soils is adequate to outline mineral enrichment and areas of interest. Litho-geochemistry of rocks, especially when mineralized is a must along with thin and polished sections in areas of interest.

A total of 185 samples were taken and divided into 90 soil and 95 rocks samples; most of these samples were sent for multi-elemental analysis and the others were kept as geological witnesses.

The project is located 150 kilometers North-East of Keno Hill (Mayo mining district) in the Bonnet Plume range (400 kilometers north of Whitehorse, Yukon Territories, fig. 01).

The Iota claims are in map area 106C/14, at 64° N latitude, 133° W longitude. The Ruby claims are adjoining to the east on the same map 106C/14 and cover the divide to the Snake River drainage.

The claims are accessible by float or ski equipped aircraft to Glacial Lake, which is 12Km. S-E of FAIRCHILD LAKE or by helicopter from MAYO airport.

A good winter road access to the area from Keno Hill is being used by several operators and follows the Dolores creek to an old airstrip 3 kilometers from tetrahedrite creek. It continues upstream and forks to both headwater streams and could provide a gravel road access to the Iota camp.

The physiography of the Dolores Creek region is mountainous with peaks up to 2,200 meters separated by " U " shape glacial valleys, which are of all size and shape; most valley floor are at 1,000 meters above sea level.

Vegetation is alpine sub-arctic with some boreal forest and grass in the sheltered valley floors. There is some soil and moss, but the organic cover is thin even in timbered areas; restricting soil sampling to talus fines.

### 3. Personnel and field time distribution

The following personnel took part in the 1995 exploration program on the **Iota-Ruby** (106-C-14) properties:

Hajek, J.H.	Project Manager Geochemist July 22 to October 02,1995.	Zelon Enterprises Ltd. Vancouver, B.C.
Mc Gowan, Ed.	Senior Geophysicists Consultant July 22 to August 30, 1995	Diamond E Explorations Ltd. Calgary, Alberta
Hajek, Patrick	Engineering Physics Programmer/Operator July 22 to October 01,1995.	Zelon Enterprises Ltd. Vancouver, B.C.
Engelbert, M	Geophysical Operator Sampler July 22 to August 19,1995.	Zelon Enterprises Ltd. Vancouver, B.C.
Hajek, Daniel	Mining Technician Drilling/Blasting July 22 to September 05,1995.	Zelon Enterprises Ltd. Vancouver, B.C.
Kraft, Troy	Field Assistant Drilling/Blasting July 22 to September 05,1995.	Zelon Enterprises Ltd. Vancouver, B.C.
Keyser, Harmen	Helicopter Pilot Base Manager July 28 to September 17, 1995	Trans North Helicopters Mayo, Yukon



## II. GEOLOGY & MINERAL OCCURRENCES

Regionally the area is predominantly underlain by middle to Late Proterozoic clastic & carbonate sedimentary rocks lying within the Wernecke Inlier, fig.03 . Four principal stratigraphic geological units occur in the region bounded by unconformities, table 01. From oldest to youngest, they are:

- Middle Proterozoic Wernecke Supergroup
- Middle to Upper Proterozoic Pinguicula group
- Upper Proterozoic Windermere Supergroup
- Upper Proterozoic to lower Paleozoic carbonate and sandstone.

### 1. Regional Geology and structure

Geological mapping has been conducted in the region by the Geological Survey of Canada (Blusson 1974, Delaney 1980) and the Yukon geoscience office (1981-1993), fig. 04.

#### a. Regional geology

Proterozoic rock are divided into an Helikian sequence known as Wernecke Supergroup (Fig. 03). Three groups define the Wernecke Supergroup representing 13,000 meters of Middle Proterozoic sediments and have the following type of deposition, starting with the lower sequence (Table 01):

- Fairchild Lake Group: the lowermost, includes 4,000 meter sequences of shales, slates or siltstone with minor carbonate interbeds.
- The Quartet Lake Group: 5,000 m. of overlying slates, argillites & siltstones.
- Gillespie Lake Group conformably caps the sequence and is comprised of 4,000 meters of orange weathering dolomites, limestones & argillites.

Hadrynian rocks of late Proterozoic age lie unconformably over the previous units and are divided into the Pinguicula & Rapitan Group. They are host of massive sulfide zinc & lead deposits with silver & gold.

Ogolvie & Wernecke Mtn. Inlier

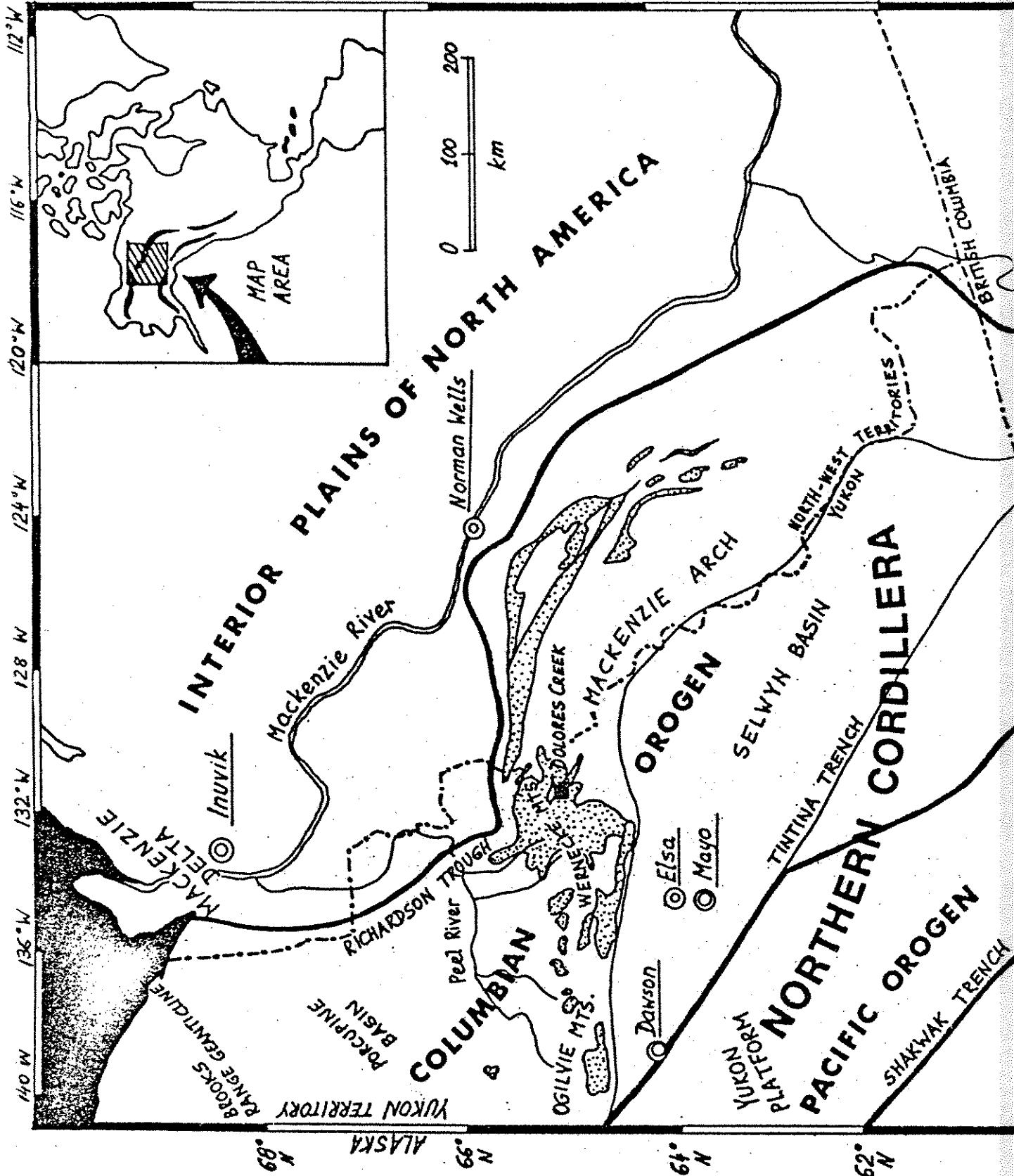
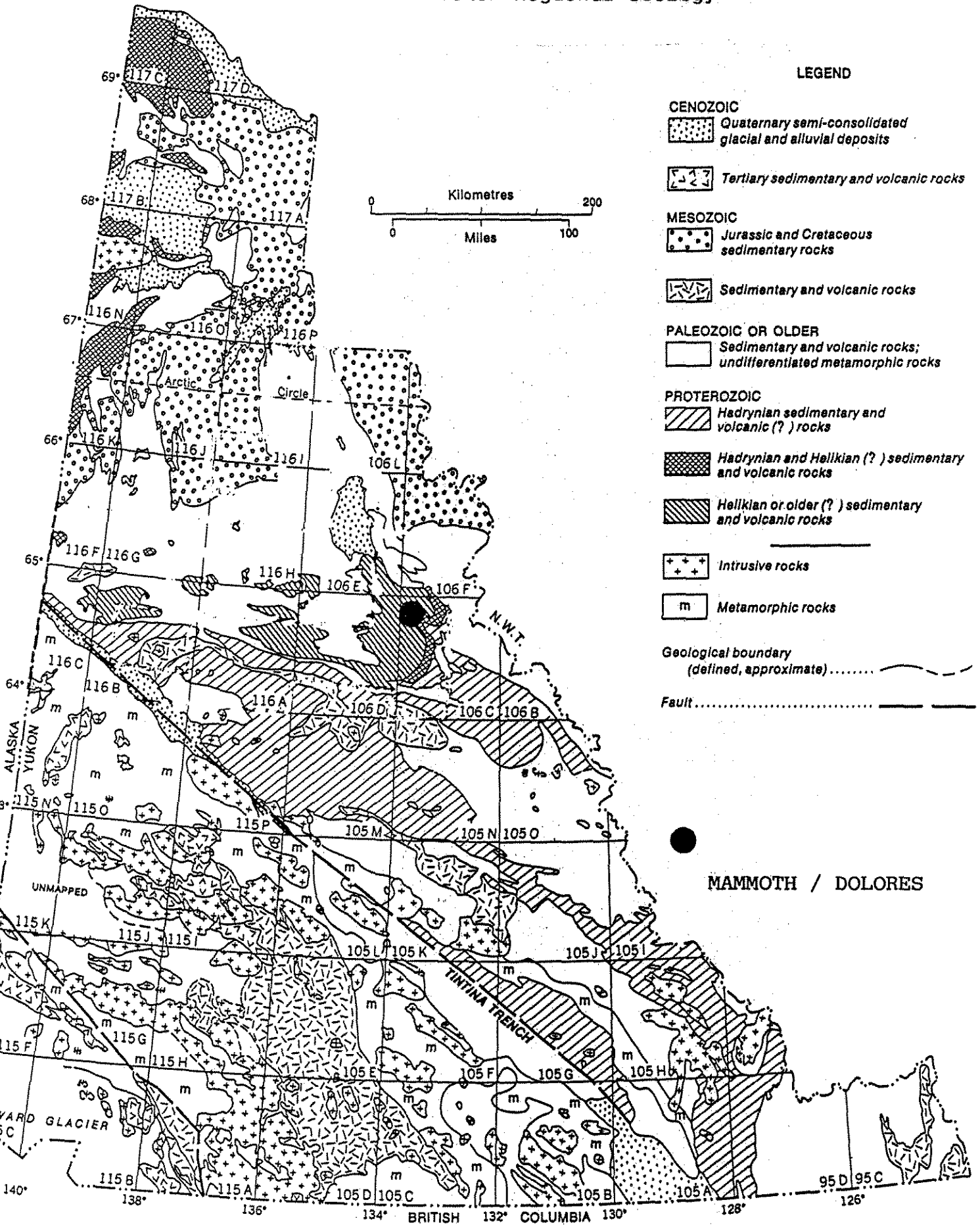


Fig. 03

# YUKON Regional Geology



## LEGEND

### CENOZOIC

Quaternary semi-consolidated glacial and alluvial deposits

Tertiary sedimentary and volcanic rocks

### MESOZOIC

Jurassic and Cretaceous sedimentary rocks

Sedimentary and volcanic rocks

### PALEOZOIC OR OLDER

Sedimentary and volcanic rocks; undifferentiated metamorphic rocks

### PROTEROZOIC

Hadrynian sedimentary and volcanic (?) rocks

Hadrynian and Hekikian (?) sedimentary and volcanic rocks

Hekikian or older (?) sedimentary and volcanic rocks

Intrusive rocks

Metamorphic rocks

Geological boundary (defined, approximate) .....

Fault .....

General geology of the Yukon showing the location of the study area

Fig. 04

INTRUSIVE AND STRATIFORM BRECCIAS

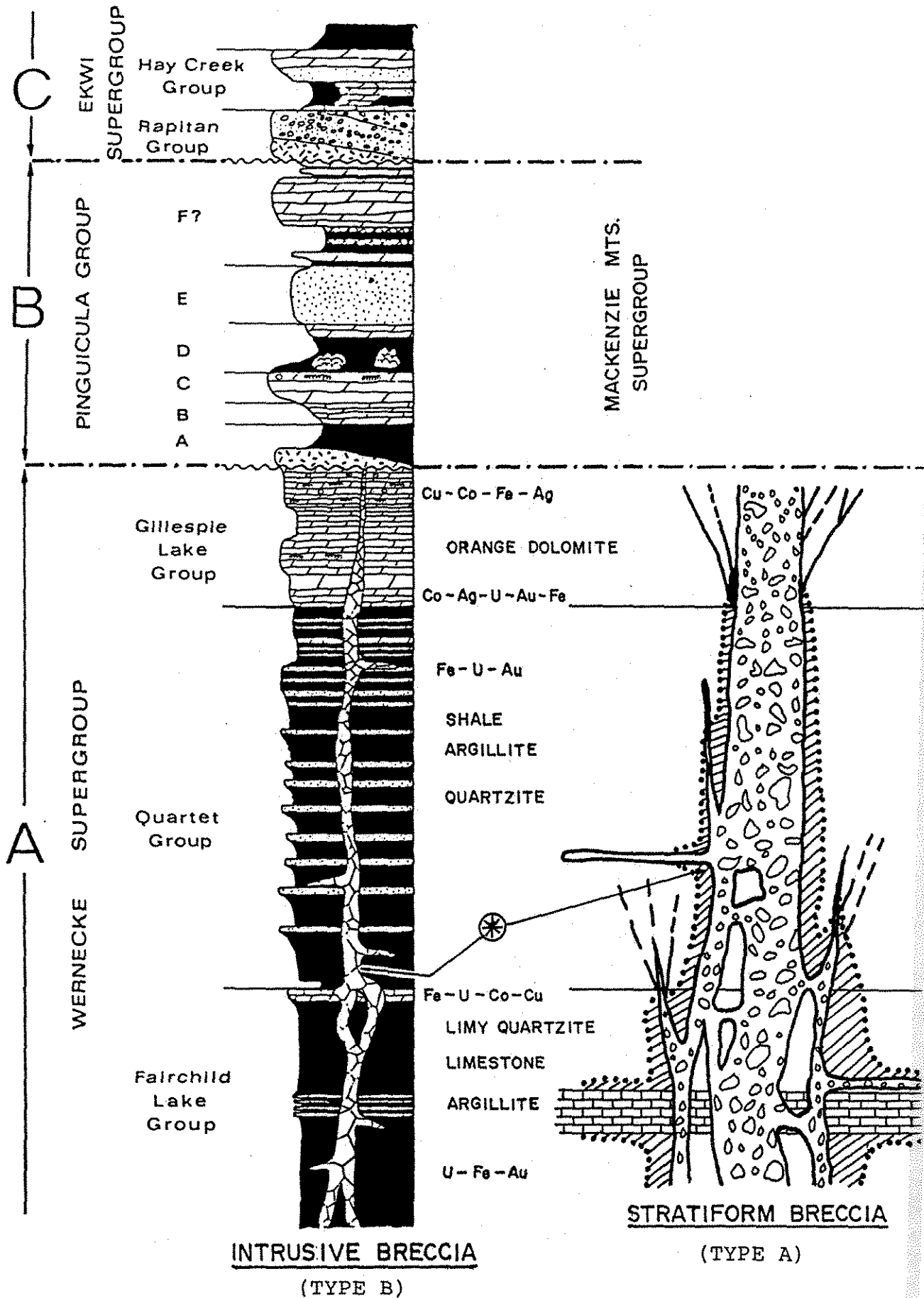


FIG. 05

b. Breccia bodies and Intrusives

Numerous breccia bodies and igneous rocks intrude the Wernecke Supergroup. The igneous bodies are considered older than the breccias and form various stocks and dikes; many of which have been altered during subsequent breccia emplacement (Fig 05). Igneous rocks are fine to medium grained, greenish to gray, equigranular plagioclase-pyroxene diorite. Coarse grained pegmatitic segregation occur in some diorite dykes.

Breccia bodies cut Helikian Wernecke Supergroup strata (Fig.05). They are irregularly shaped to pipe-like and often have stratabound apophyses of breccia. Fragments within the breccia are angular to rounded and the matrix is comprised of milled rock piece. The margins of the breccia complexes vary from sharp to gradational, with breccia and fractures gradually dying out into the host rock.

Alteration minerals associated with breccias include sodic-feldspar, hematite, calcite and quartz with accompanying enrichment in copper, cobalt, uranium, barium and iron. The iron could present itself as hematite or as large bodies of iron carbonates (Laznicka and Edwards, 1979).

Altered diorite, dolerite dykes and sills cut Wernecke Hadrynian strata and breccia bodies. However some dykes are known to terminate at the Helikian-Hadrynian unconformity and some of the breccias include fragments of diorite. Some Lamprophyre and/or peridotite dykes have been found. Delaney, in 1981, suggested that several ages of intrusive rocks exists and provide an explanation for this.

c. Geological Structure.

The structural style of the region is dominated by normal faults, trust faults and open to tight folds. **Eight phases** of deformation occurred during the interval Middle Proterozoic to Paleozoic or younger.

- **Phase 1** was contractional producing fold and cleavage in the Wernecke Supergroup strata. Steeply dipping faults that cut both Helikian and Hadrynian strata trend west to northwest, offsets include both vertical and horizontal displacement. Locally, strata are intensely faulted, causing complex structural relationships.
- **Phase 2** also contractional, produced kinbands in phase 1 cleavage and are considered manifestation of the Racklan orogenic.

- **Phase 3** involves fracturing, brecciation and faulting during development and emplacement of Wernecke breccia.
- **Phase 4** foliation consisting of fractures in Wernecke breccia and Gillespie Lake group. The fabric postdates breccia emplacement, but is truncated by the unconformity with the overlying Pinguicula group.
- **Phase 5** was contractional, producing thrust faults and folds in the Pinguicula group before the deposition of the Windermere supergroup
- **Phase 6** was extensional, producing normal faults.
- **Phase 7 and 8** occurred after the deposition of the Windemere supergroup, and Upper Proterozoic to Lower Paleozoic strata.
- **Phase 8** produced normal faults which cut Windemere and younger strata.

## 2. Property Geology:

The Dolores Creek region has been mapped and well documented by P. Laznicka, and shows two main zones of alteration and mineralization. The Dolores area has been partially prospected and has many interesting mineral occurrences (Fig 06).

The IOTA-RUBY claims are underlain by carbonate rich *Gillespie Lake Group* and subdivided Hadrynian rocks of late Proterozoic age lie unconformably over the previous units in five distinct lithological sub-units on the basis of lithological and textural characteristics (Table 01). In the Eastern section, younger Hadrynian rocks of the *Pinguicula Group* overlie unconformably, the *Gillespie Lake group* (Fig. 06).

Malachite has been found in green shale of the lowermost Hadrynian strata. Laznicka ( 1977 ) suggests this is a "copper shale" type mineral occurrence. It is also a potential host for strata bound base metals deposits with gold-silver enrichment.

Numerous diorite-dolerite dykes & sills with minor lamprophyre exposures are found throughout the property and is suggesting the presence of a common larger

intrusive source. High grade cobalt veins, replacement, and dissemination occurs with or near basic and acidic intrusives.

High grade gold (1 to 10 oz./ton) & silver veins (20 to 300 oz/ton), replacement and dissemination occurs with or near basic and acidic intrusive contact. Quartz, calcite, dolomite and siderite veins are associated with faults in carbonate rocks. The various veins often contain tetrahedrite, bithmuth-galena complexes and sulphantimonite crystals. Pyrite, chalcopryrite, bornite, galena, sphalerite, and native gold are abundant in the claims area and make the bulk of the sulphide mineralization found to day.

A major westerly zone of faulting and alteration constitutes the Iota fault zone and can be traced for kilometers to the Snake river drainage basin. Several other westerly and northerly faults related to the Iota shear zone appear to be well mineralized and worth some exploration efforts.

### **3. Conclusion:**

Mineral occurrences are abundant in the project area and consist of high grade copper, gold, and silver. These high grade exposures extends the previously known occurrences grouped under "The 1966 Mammoth Copper-Cobalt Porphyry alteration halo."

Three type of dolostone alteration is found along or near fault zones. Each of the four gold and/or silver discoveries along the Iota fault zone, comprises of sulphide bearing veins hosted by dolostone or replacement within iron carbonate matrix. Five predominant types of mineralization have been found:

- Type I Tetrahedrite (with or without pyrite), and chalcopryrite in dark red siderite.
- Type II Comprise one or more of galena, sphalerite, stibinite, tetrahedrite in quartz, calcite and dolomite.
- Type III Transitional between I & II
- Type IV Intrusive related mineralization
- Type V Non vein, non intrusive type related occurrence

Petrographical study of specimen rock samples from the initial 1980 gold discovery zone (done from local #1), provided some light as to the origin of the rich mineralization:

- Three sulphide bearing vein specimens from trench I-1 contain stibinite, sphalerite, galena, covellite, pyrite, gold, quartz, carbonate, and potassium-feldspar.
- The contact relationships between the grains indicate that a complex paragenetic sequence exists.
- The sequence contains two periods of gold deposition, one of which postdate a deformational period that affected sphalerite, stibinite and galena.
- Deformed sulphides indicate that mineralization occurred prior to or during a tectonically active period.
- Visible gold in TS1 & TS2 samples occur as:
  - Associated with covellite and gangue
  - At the contact between sphalerite and stibinite
  - In fractures, in the covellite, and quartz



DOLORES - IOTA CLAIMS GEOLOGY

SCALE: 1:50,000

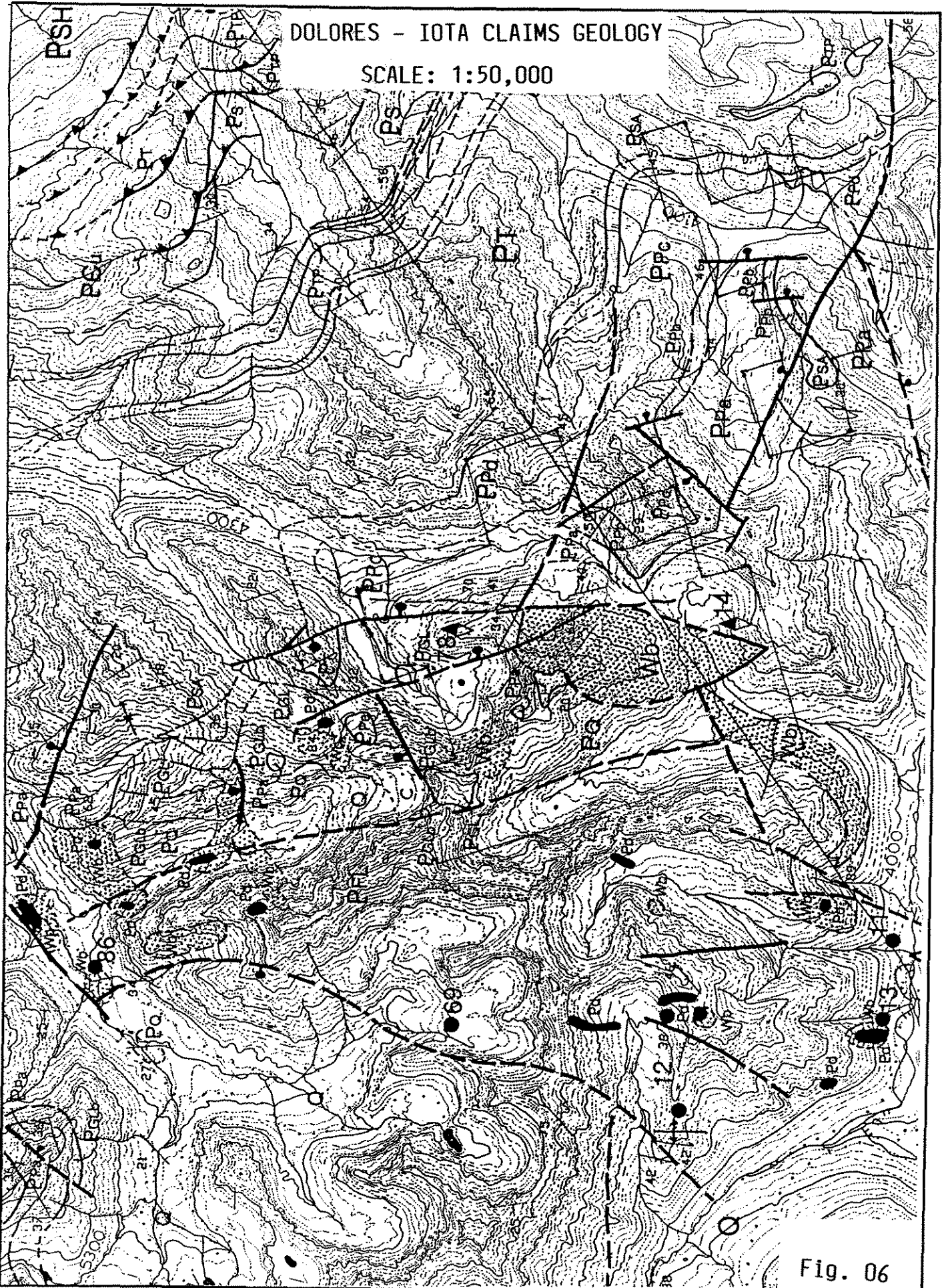


Fig. 06

**LEGEND****DOLORES CREEK 106 C14****Quaternary**

**Q** Alluvium, colluvium, and glacial deposits

**Upper Proterozoic to Lower Paleozoic**

**PEu** Rusty to grey weathering quartz arenite; pinkish orange and grey weathering white carbonate; pebble conglomerate; siltstone and shale

**Upper Proterozoic****Windermere Supergroup**

**PS** **Sheepbed Formation:** recessive, black weathering shale and siltstone; minor grey weathering limestone near top of unit

**PK** **Keele Formation:** thin bedded to massive, light orange to brown weathering micritic dolostone. Minor brown weathering diamictite locally forming base of unit may belong to Ice Brook Formation

**PT** **Twitya Formation:** thin bedded, brown weathering siltstone interbedded with sandstone, granule to pebble conglomerate ("grit"), and light grey weathering dolostone

**PTP** **Profelt dolostone (facies of Twitya Formation):** massive to thick bedded, light grey weathering dolostone commonly containing vugs, stromatolites, oncoides, oolites and micritic intraclasts; commonly fetid; minor siltstone, sandstone and grit

**PSH** **Shezal Formation:** massive, green weathering diamictite containing rounded to subrounded pebbles and cobbles of carbonate, sandstone and (?)greenstone

**PSA** **Sayunei Formation:** thick bedded to massive, orange to brown weathering sandstone, and conglomerate containing rounded to subrounded pebble to boulder sized clasts of carbonate, siltstone and quartz arenite

**Middle to Upper Proterozoic**  
**Pingicula Group**

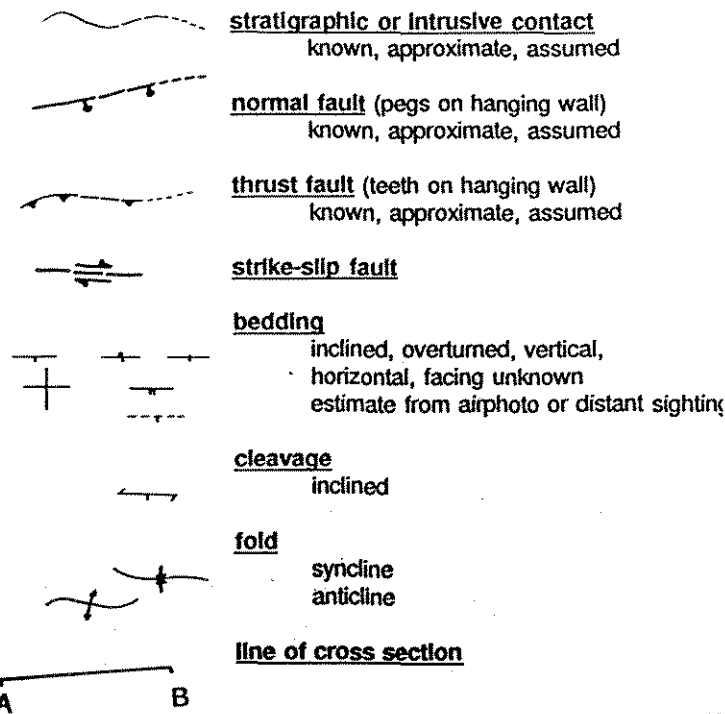
**PPd** **Unit D:** medium to very thick bedded buff, orange, brown and grey weathering dolostone, interbedded with black, grey and maroon weathering shale, micaceous siltstone, nodular limestone, and light grey weathering quartz arenite. Stromatolites are locally abundant in basal and upper parts of succession

**PPdq** **Corn Creek quartz arenite (facies of Unit D):** thick to very thick bedded, light grey weathering quartz arenite, minor siltstone and carbonate; abundant in upper parts of Unit D; formerly termed "Corn Creek quartzite"

**PPc** **Unit C:** thin to very thick bedded and massive, grey weathering dolostone and limestone; abundant "zebra" texture and pods of coarse grained sparry dolomite; minor intraclast conglomerate and interbeds of black shale

**PPb** **Unit B:** medium bedded, orange weathering dolostone; minor grey weathering limestone and maroon weathering siltstone. Local crossbedding and intraclast conglomerate

**PPa** **Unit A:** thin bedded, laminated; maroon, green and black weathering siltstone and shale; minor basal sandstone and conglomerate



**Middle Proterozoic**

**Wernecke Supergroup**

PGL

**Gillespie Lake Group:** orange, brown and grey weathering dolostone and silty dolostone, locally stromatolitic, locally hosting chert nodules and sparry karst infillings; minor siltstone and shale, and light grey weathering quartzose sandstone

PGLb

**Basal Gillespie Lake Group:** cross laminated, orange weathering silty to sandy dolostone interbedded with black weathering shale and grey to white weathering, quartzose, fine grained sandstone

PQ

**Quartet Group:** black weathering shale, finely laminated dark grey weathering siltstone, and planar to cross laminated light grey weathering siltstone and very fine grained sandstone. In upper part of succession, siltstone and fine grained sandstone interbedded with subordinate orange weathering dolostone grades upward into basal Gillespie Lake Group

PFL

**Fairchild Lake Group:** thinly bedded, laminated to cross-laminated, black to greenish-grey weathering siltstone and limy siltstone; minor black to grey weathering slate and kinked slate; minor brown weathering dolostone

PSH

**Shezal Formation:** massive, green weathering diamictite containing rounded to subrounded pebbles and cobbles of carbonate, sandstone and (?)greenstone

PSA

**Sayunei Formation:** thick bedded to massive, orange to brown weathering sandstone, and conglomerate containing rounded to subrounded pebble to boulder sized clasts of carbonate, siltstone and quartz arenite

BELL, R.T., 1986. Geological map of northeastern Wernecke Mountains, Yukon Territory. Geological Survey of Canada, Open File 1207.

BLUSSON, S.L., 1974. Geology of Nadaleen River, Lansing, Nidderly Lake, Bonnet Plume Lake and Mount Eduni map areas, Yukon Territory; Geological Survey of Canada, Open File 205, scale 1:250 000.

DEAN, P.M., 1974. Report on geological and geochemical field work; I.N.A.C. Assessment Report # 061207.

DELANEY, G.D., 1981. The mid-Proterozoic Wernecke Supergroup, Wernecke Mountains, Yukon Territory. In: Proterozoic Basins of Canada, F.H.A. Campbell, (ed.). Geological Survey of Canada Paper 81-10, p. 1-23.

EISBACHER, G.H., 1981. Sedimentary tectonics and glacial record in the Windermere Supergroup, Mackenzie Mountains, northwestern Canada. Geological Survey of Canada, Paper 80-27 p. 1-40.

INAC, 1993. Yukon MINFILE, 1993. Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada.

LAZNICKA, P. AND EDWARDS, R.J., 1979. Dolores Creek, Yukon--a disseminated copper mineralization in sodic metasomatites. Economic Geology, Vol. 74, p. 1352-

### III GEOPHYSICAL SAMPLING

Edwin B. McGowan, a Geophysicist from Calgary Alberta, has been in charge of setting the instrumentation package for testing the response of various geophysical tools in detecting buried breccias and mineralization of economical importance. From 1980 onwards, J. H. Hajek has been successful in mapping with ground and airborne radiometrics and using VLF-EM on vein type mineralization.

#### 1. Instrumentation

An EDA Total Field Magnetometer system comprise of two recording field magnetometers units and an auto recording base station have been used on this project. The field data is unloaded to a field computer at the end of each day's survey; either at the Glacial Lake field camp or at the base in Mayo. Drift and noise correction data has also been collected concurrently to account for any background disturbances. Both sets of data was correlated during the data transfer process.

The magnometers are capable of recording to 0.10 gammas( $\gamma$ ) with an average deviation of plus or minus 0.20 $\gamma$  to 0.30 $\gamma$  on repeat stations during each survey. Computer equipment includes a Compaq (used in the field), an IBM Aptiva, DMP plotter, an Epson printer, and a UPS power supply. An EM-16R Geonics VLF receiver, has been modified and is used in the measuring of the VLF and the near surface ground resistivities

Mineral occurrences are very abundant in the project area and consist of high grade copper, gold, silver, cobalt, and various sulphides found in sedimentary units (made of argillite, siltstone, and limestones with replacement mineralization) which seems to be concentrated in the vicinity of N-W trending fault systems.

#### 2. Property coverage

The Iota-Ruby fault zone area has been used for an orientation survey with a proton magnetometer; refer to fig. 7. Appendix B outlines field data with detailed line magnetic variation. Readings were taken at 12.5 meter intervals, unless specified otherwise, over a distance of 1150 meters.

The base line has a relative background in Helikian sediments at a relative 400 gammas ( $\gamma$ ) level with a variation of 100  $\gamma$  representing the contrasts between

# MAGNETOMETER SURVEY LOCATION

IOTA FAULT 106C-14 LOCALE 1

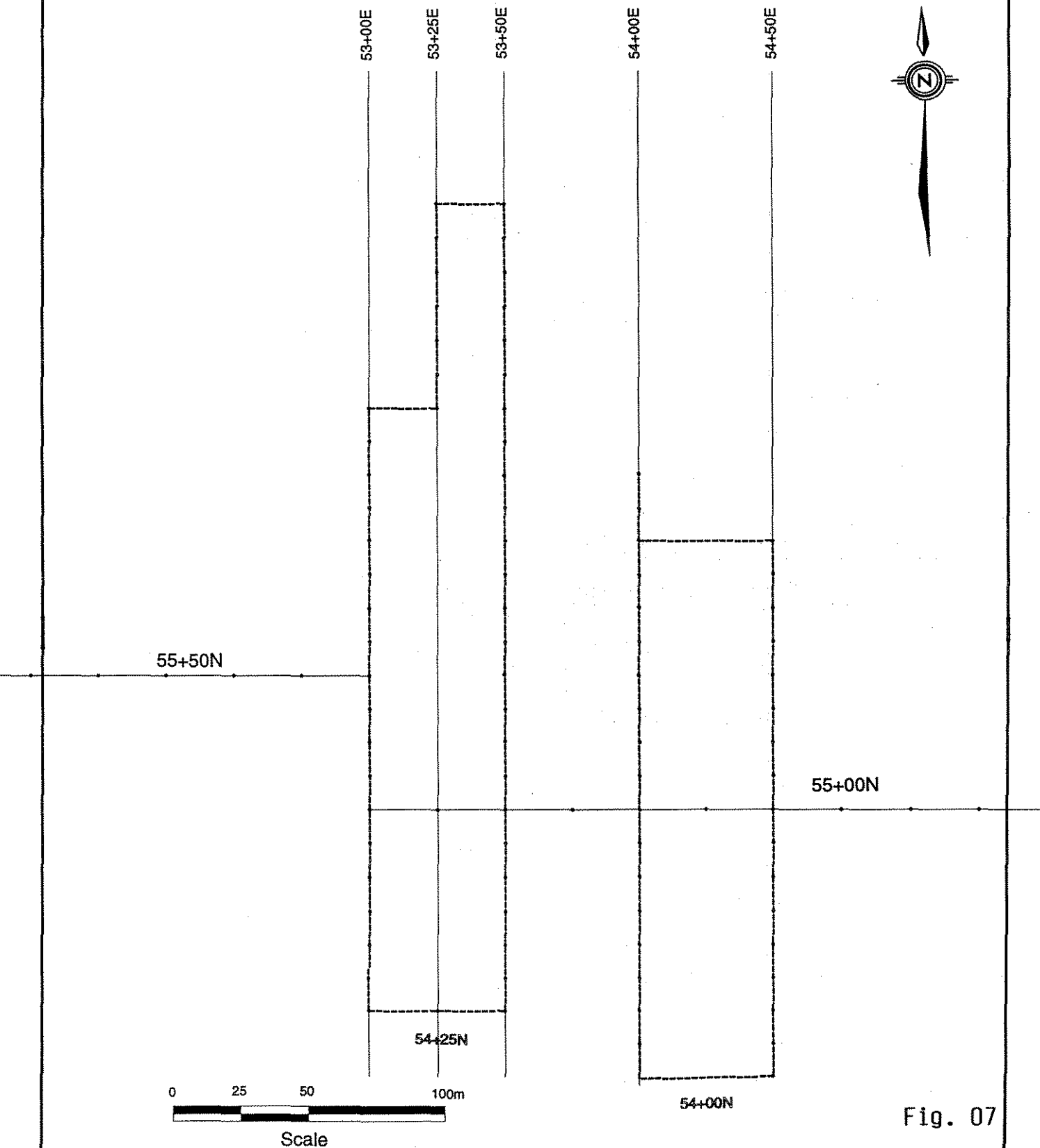


Fig. 07

barren sedimentary rocks and veins or mineralized zones with magnetic mineral enrichment.

Line 5325 reflects a stable magnetic background at a relative 400 $\gamma$  level with minor peak variations of 404 $\gamma$  and 408 $\gamma$ .

Line 5300 indicates a background of 400 gammas with an increase of 100 $\gamma$  in the alteration zone and a 30 meter wide peak with a +800 $\gamma$  variation. It appears to locate the Iota iron rich breccia contact (from the sharp increase in the magnetic susceptibility due to an increase in magnetite and other minerals).

Line 5350 indicates a 100 gamma variation over a distance of 75 meters. The relative threshold within this line is at 400  $\gamma$  (of magnetic variation). It reflects a breccia / intrusive / sedimentary geological sequence and is located in locale 1, discovery trench 1. This area is very complex with a zone of high iron mineral contents cut by faults, veins, and basic and potassium-phelspar dikes.

On Line 5400, the relative 408 gammas ( $\gamma$ ) background indicates a 25 meter depression reflecting a chemically leached zone (10 $\gamma$  lower than the threshold of 408 $\gamma$ ). From station 5400 (428 $\gamma$ ), to station 5487.5 (428 to 418 $\gamma$ ), a rise of 20-30  $\gamma$  occurs over this region. At the end of the high plateau, an increase of 15 $\gamma$  occurs over 20 meters and represents a magnetic increase due to a compositional change (reflected by the magnetic susceptibility increase). A detail ground examination must relate the various magnetic field changes to the geology and to the alteration zones.

#### **IV. GEOCHEMICAL ORIENTATION SURVEY**

The object of this orientation survey is to extend the discovery zone (locale 1 trench 1), to map the various alteration zones, metal contents of various rock units, and to locate possible drill targets.

A total of 140 geochemical samples were collected and sent to NAL laboratory of Whitehorse, YT. and duplicate samples sent to both Chemex of Vancouver and Loring Labs of Calgary.

Assays were done for gold-silver on one assay ton (or fraction of), on -80 or -100 mesh of fines pulverized samples. Selected samples of rock specimen and soils were sent for 32 elements I.C.P. analysis to provide a basis for lithological correlation.

Exploration pits and small trenches were blasted and cleared out, totaling approximately 210 cubic yards of rocks and debris (done mainly on older excavation work); refer to fig. 2B & 2C.

Chemical characteristics of the Olympic Dam copper-gold mineralization and intrusive/breccias related mineralization are conducive of a geochemical exploration search within similar stratigraphy. Trace element zoning related to the gold-silver ore, cobalt, copper, and massive sulphide ore stratigraphy is desirable to evaluate the economical importance of the property.

##### **1. SCREE SLOPE SOIL GEOCHEMICAL ENRICHMENT**

Mechanical and chemical erosion of bedrock results in metal enrichment in talus accumulations and scree slopes. Mechanical erosion along fractured surfaces or veins which contain disseminated ore minerals releases the metal rich fines which are accumulated within sand, silt, and clay size fraction of talus deposits.

Talus anomalies genesis may also reflect hydromorphic processes. Water flowing along bedrock surfaces or through talus fans may dissolve the ore minerals and subsequently depositing the metals where conditions are favorable (such as at the base of slope).

# SOIL SAMPLE LOCATION

IOTA FAULT 106C-14 LOCALE 1

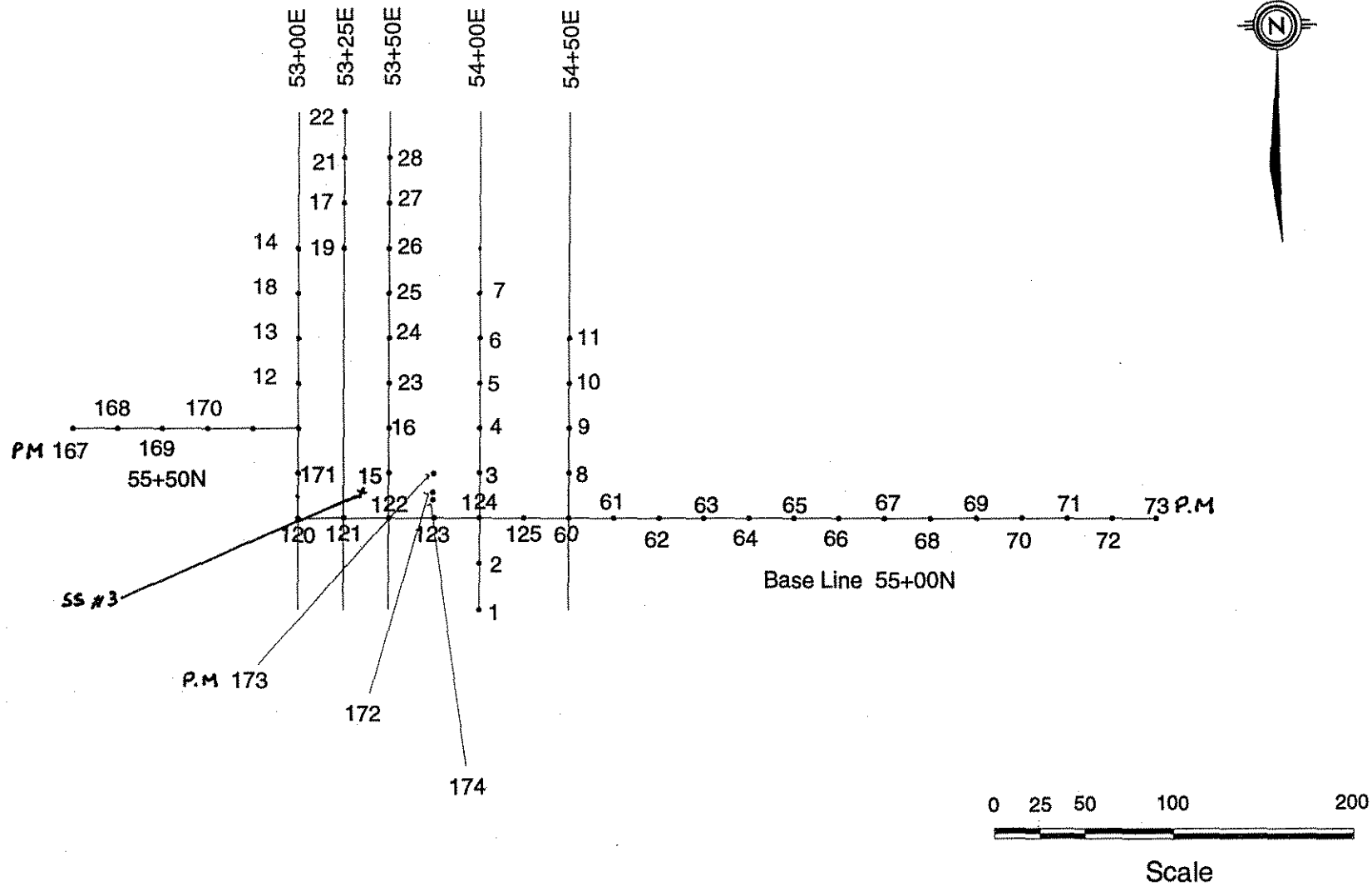


Fig. 08

Ruby 4

Ruby 3

SOIL SAMPLE LOCATION  
RUBY PASS 106C-14 LOCALE 3 & 4

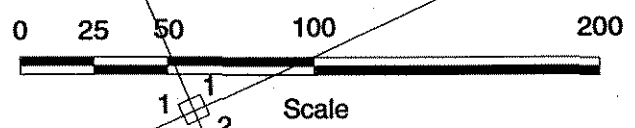
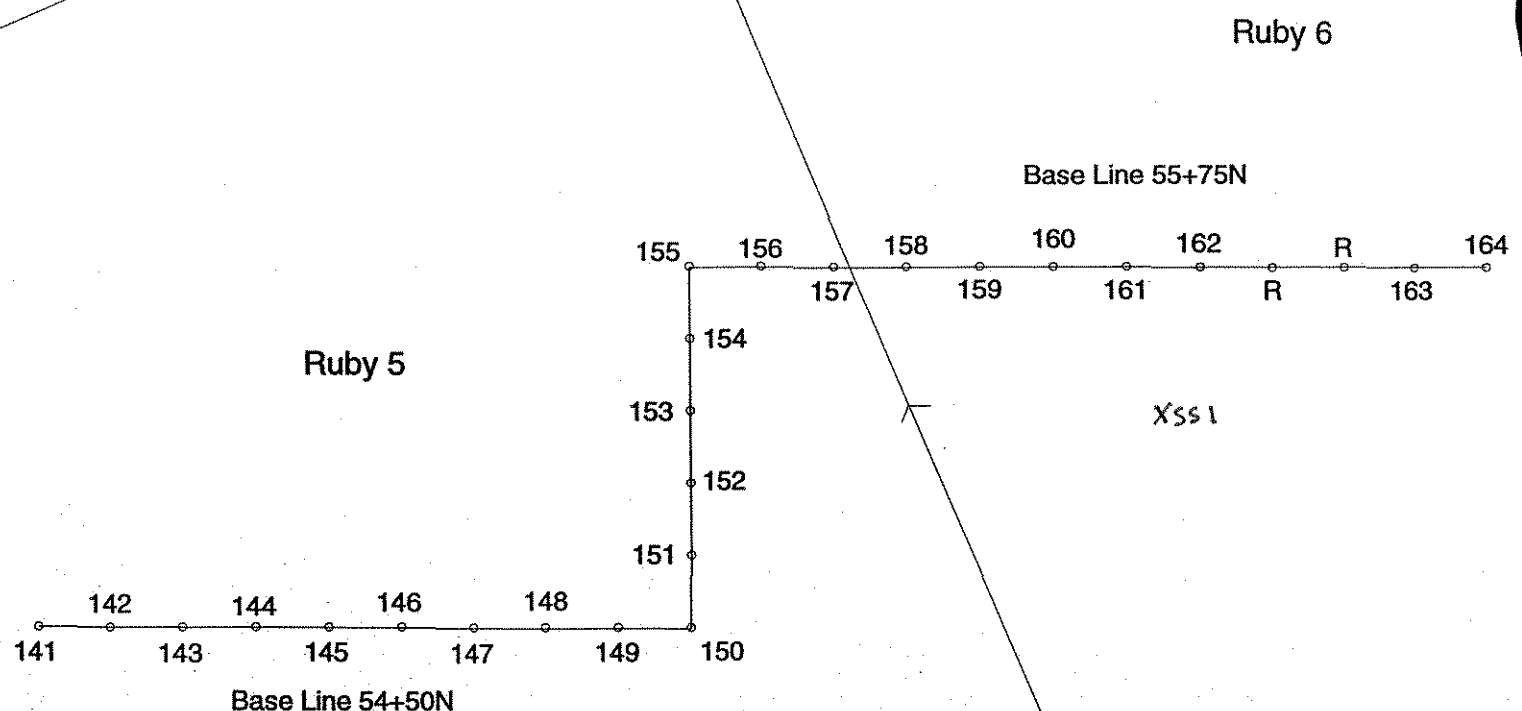


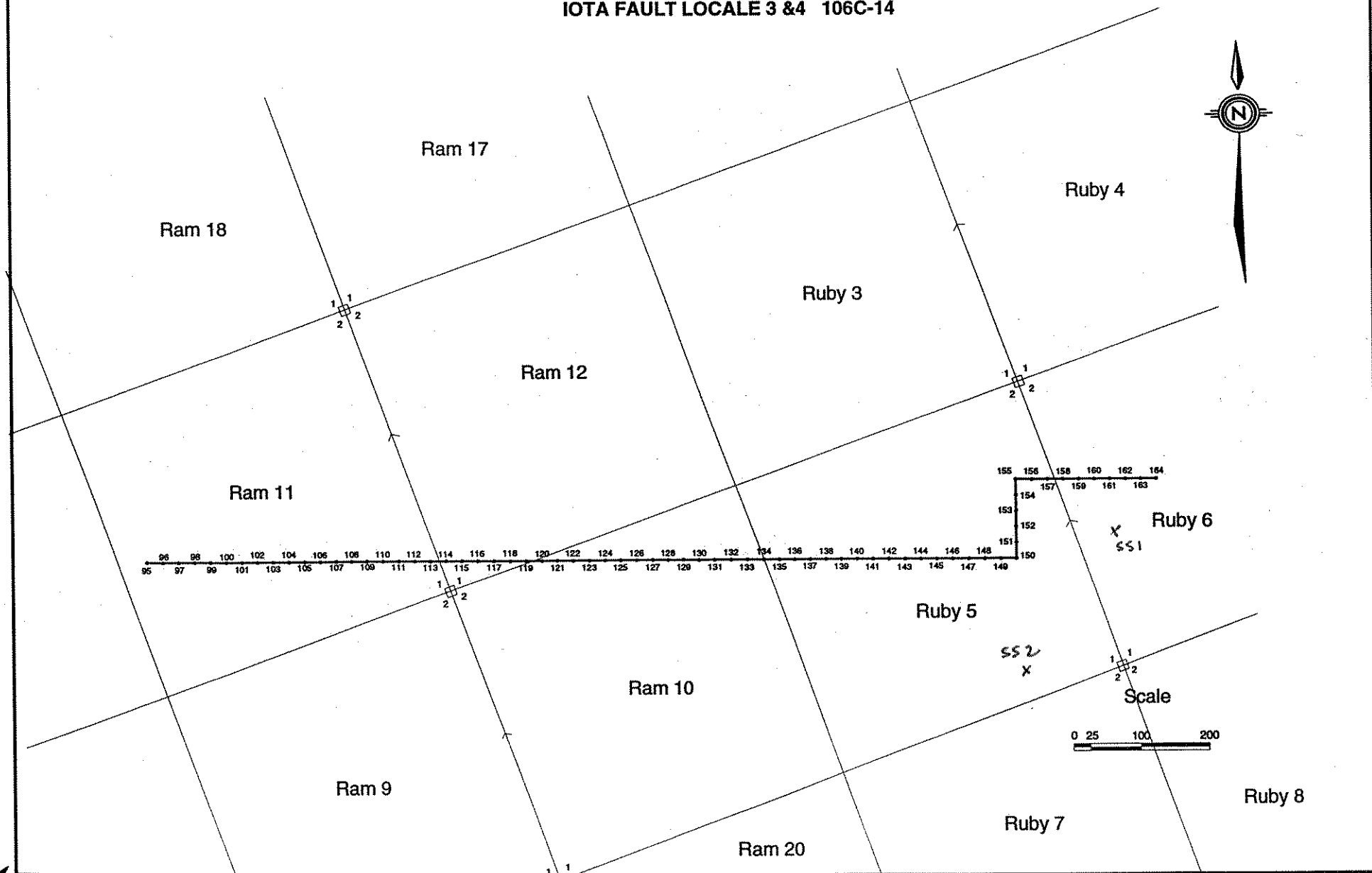
Fig. 09

Ruby 8

Ruby 7

# SOIL SAMPLE LOCATION

IOTA FAULT LOCALE 3 & 4 106C-14



Talus fines are collected at regularly spaced intervals of 12.5 meters or 25 meters. Talus fine surveys are not equivalent to the soil surveys. However, talus fines are derived from bedrock lying 50 to 400 meters or more upslope.

Principal objectives of the survey is the assessment of the mineral potential of the claims and delineating areas which justify subsequent detailed exploration work.

#### a ) Soil sample collection and interpretation

Talus fines mixed with rocks are taken from each location (at 12.5 meters intervals, from holes of varying sizes) and are placed through a plastic strainer. 1/4 of one inch material is collected through this procedure and is stored into a standard craft envelop provided by the assay labs.

An East-West base line of over 2000 meters along the IOTA fault has been systematically soil sampled resulting in several gold/copper/antimony/arsenic/potassium zones of enrichment (Fig. 08 & 09).

#### b ) Interpretation

Scree slope samples collected along a "B-C" horizon is of a mixed content, mainly in the case of gold of solifluction enrichment. It has its sources in nearby mineralized sediments, shears, quartz veins, etc. Therefore, it is not representative of the true gold content of any rock, but points to an area to be investigated further.

Buried bedrock units that often including entire stratigraphical section will not be represented by the top surface samples. It explain the erratic nature of many single point anomalies, but is indicative of a certain minimum of metal content. It also implies that the area of gold enrichment is often larger than the one analytically detected.

Gold and silver assay are done on (-80 and +80) oversized fraction in order to differentiated between the in-place and moved metal enrichment. Results are consistent in the -80 fraction and low in the +80 size with minor exceptions.

#### Sample

PM-19: 164ppb Au & 0.4ppm Ag in a -80 size fraction, Au=0.03oz. / ton  
in +80 size fraction

PM-23: 78ppb Au & 4.5ppm Ag in a -80, Au=0.005oz./ton in the +80

PM-24: 14ppb Au & 1.2ppm Ag in -80, Au & Ag low detection level

PM-112: 317ppb Au & 1.1ppm Ag in -80, Au=0.010oz./ton in +80 fraction

PM-113: 1,270ppb Au & 5.4ppm Ag in -80, Au=0.036oz. & Ag=0.10oz./ton

PM-114: 246ppb Au & 0.3ppm Ag in -80, Au=0.009oz./ton in +80 fraction

PM-169: 358ppb Au & 7.6ppm Ag in -80, Au=0.013oz./ton & 0.29oz./ton  
Ag in +80 fraction

PM-172: 342ppb Au & 2.2ppm Ag in -80, Au=0.025oz./ton in +80 fraction

PM-173: 474ppb Au in -80 mesh, Au = 0.006 oz./ton in +80 mesh

Trace elements association varies according to mechanical and solution movement due to slope angle, geology, and rock chemical composition; the values are in part per million if not specified otherwise:

PM-23: Ag, Cu, Pb 194, Zn, As, Sb, Co 335, Ni 434, Ca 13%,  
Fe 5.8% & Mg 8.4%.

PM-152: Ag, Cu 522, Sb, Pb 558, Zn 2497, As, Cd & K.

PM-153: Ag, Cu, Sb, Pb, Zn, As, Co & K.

PM-159: Ag, Cu 490, Sb, Pb 479, Zn 1.8%, As, Cd 13 & K.

PM-169: Ag 6, Cu 986, Sb 462, Pb, Zn, As.

PM-172: Ag, Cu, Sb, Zn, As, Co 102, Ni 556.

PM-174: Cu, Co 93, Ni 784, Cr, V & K 0.12.

Trace element analysis outlines several weak but promising area of interest. Precious metal enrichment appears to be related to several igneous sources as indicated by potassium, cobalt/nickel and bithmuth values.

## 2. ROCK LITHOGEOCHEMISTRY

Assays results from rock outcrop samples indicate sub-economical to high grade ore values ranging from 0.01 to 0.57 oz. gold/ton to a high range of 1.8 to 5.0 oz. gold/ton average (Fig. 10).

### a) *Locale 1 trench 1, on The Iota Fault Structure*

High gold value in quartz veins vary from 5.3 to 8.7 oz./ton with or without sulphides. The fractures in quartz and the visible gold appears to account for the

discrepancy. Sphalerite in the 10% range, when not associated to other metals, will have a low gold content at best of 0.10 to 0.60oz./ton or near background level.

Sample DH-2 & DH 9:

Wall rock of altered diorite with lead-zinc enrichment, high gold background of 0.016oz./ton, 0.64 to 2.9 % K, 8-14 % Fe, As, Sb, enrichment.

Samples DH-1-95:

Quartz vein in carbonate sediments of the upper trench, gold 8.7 oz./ton, Cu 1%, Pb 3.8 %, Zn 1.4%, Sb 1.7%, Bi and Fe 1.9%.

Samples DH-7-95:

Quartz matrix with +20% sulphides, gold 6.7oz./ton. Cu 4.3%, Sb 5.4%, Pb 4.3%, Zn 9.4%, Bi, Mg 5%, Fe 14% & K 0.6%. Sample were done in duplicate with good repeatability.

Sample DH-17-95:

Wall rock only, Au 0.011oz./ton, Ag 28 ppm, As +1%, Pb 0.2%, Sb 0.19% & Zn 0.5%.

Sample DH-18-95:

Quartz with mixed sulphides, gold 10.58oz./ton, Ag 1oz/ton, Pb 0.48%, As, Bi, Cd & Cr.

**b) Sample Io-160 to 172. Trench 4 elevation 5710 feet.**

The above samples mainly consisted of Quartz with sulphides and wall rock material. Most samples were taken as pair to differentiate high gold from low gold values. Fire assay gave a better understanding to values differentiation, since a large 15 to 30 gr. sample is more representative than 0.2gr. I.C.P.

Samples IO-150/151:

Gold 0.05 to 0.14oz./ton. with silver 1.0 to 1.5oz./ton for fractured white and red quartz/ same with leached box work.

Samples IO-152/152B:

Gold 0.32 to 0.84oz./ton with low silver for sheared quartz contact with copper (cpy & secondary malachite ...) / selected quartz as above.

Samples IO-153/162/172:

Gold 0.04, 0.03 & 0.01oz./ton in carbonates with sphalerite and quartz.

Samples IO-154/155:

Gold 0.03 to 0.14oz./ton with low silver for wall rock with 10% iron and quartz/wall rock 1% sulphides with copper

Samples IO-156/157:

Gold 0.06 to 0.81oz./ton for 20-40% sulphides in quartz matrix the rest is made of silicified wall rock with copper minerals.

Samples IO-163/163B:

Gold 1.01 to 0.08oz./ton in black sediment from wall rock/sulphides and quartz within sericitic alteration zone.

Samples IO-164/167:

Gold 0.30 to 2.59oz./ton with silver 1.6 to 1.4oz/ton for wall rock with sulphides/black lead contact as quartz with sulphides. This zone was used for the size fraction investigation.

c) *Sample I-201 to 208. Trench 4 elevation 5710 feet.*

These samples consists mainly of Quartz and sulphides (chalcopyrite and solid solution gangue metals) within iron carbonates. The following values were obtained:

Gold range from 0.04oz to 0.05 oz./ton in wall rock mixed with crushed quartz and Ag=9oz. (for 1/3 quartz/sulphides/carbonates).

Gold range from 0.19 to 0.24oz./ton and Ag=24 to 27oz./ton in (1/2 iron carbonates and 1/2 sulphides with chalcopyrite "blebs").

Gold=0.24oz./ton with silver=24oz./ton in iron carbonates mixed with crushed smoky quartz and chalcopyrite.

d) Size Fraction Analysis:

Sample IO-165 and IO-166 are larger than usual (from 2 to 5 lb.) and have been used for the following 3 size fraction analysis:

- Coarse defined as (-1/4 +100) mesh size
- Fines powder of (-100 +150) mesh size
- Powder dust defined as -150 mesh

Sample IO-165-95:

gold content in +100 mesh = 21.223 mg. or **42.35oz./ton**

gold in (-100 +150) mesh = 3.203 mg. or 3.7oz./ton

gold in -150 mesh = 0.40oz./ton

Average gold on sample : **1.88oz./ton**

I.C.P. analysis value in separate fraction have a range of:

copper 0.4 to 2.0%, Pb 1.5 to 1.94%, Zn 2.9 to 23%, Sb 0.7 to 2.6% & Fe 1.7 to 3%.

Sample IO-166-95:

gold content in +100 mesh = 0.061 mg. or 0.07oz./ton

gold in (-100 +150) mesh = 0.077 mg. or 0.10oz./ton

gold in -150 mesh = 0.053oz./ton

Average gold on entire sample : 0.057oz./ton

I.C.P. analysis values in separate fraction have a range of :

copper 3.1 to 4.3%, Pb 1.5 to 1.6%, Zn 2.1 to 7.8%, Sb 2.1 to 3.1% & Fe 2.4 to 2.9%.

Conclusion :

Coarse gold occurred in large amount in IO-165 with both samples having similar matrix but slight zoning differences which will have to be evaluated in the field.

Commercial grade of gold is either 90% coarse, in (-35 + 150) mesh, in quartz veins or associated to lead-zinc with copper and antimony.

# GEOCHEMICAL DISPERSION

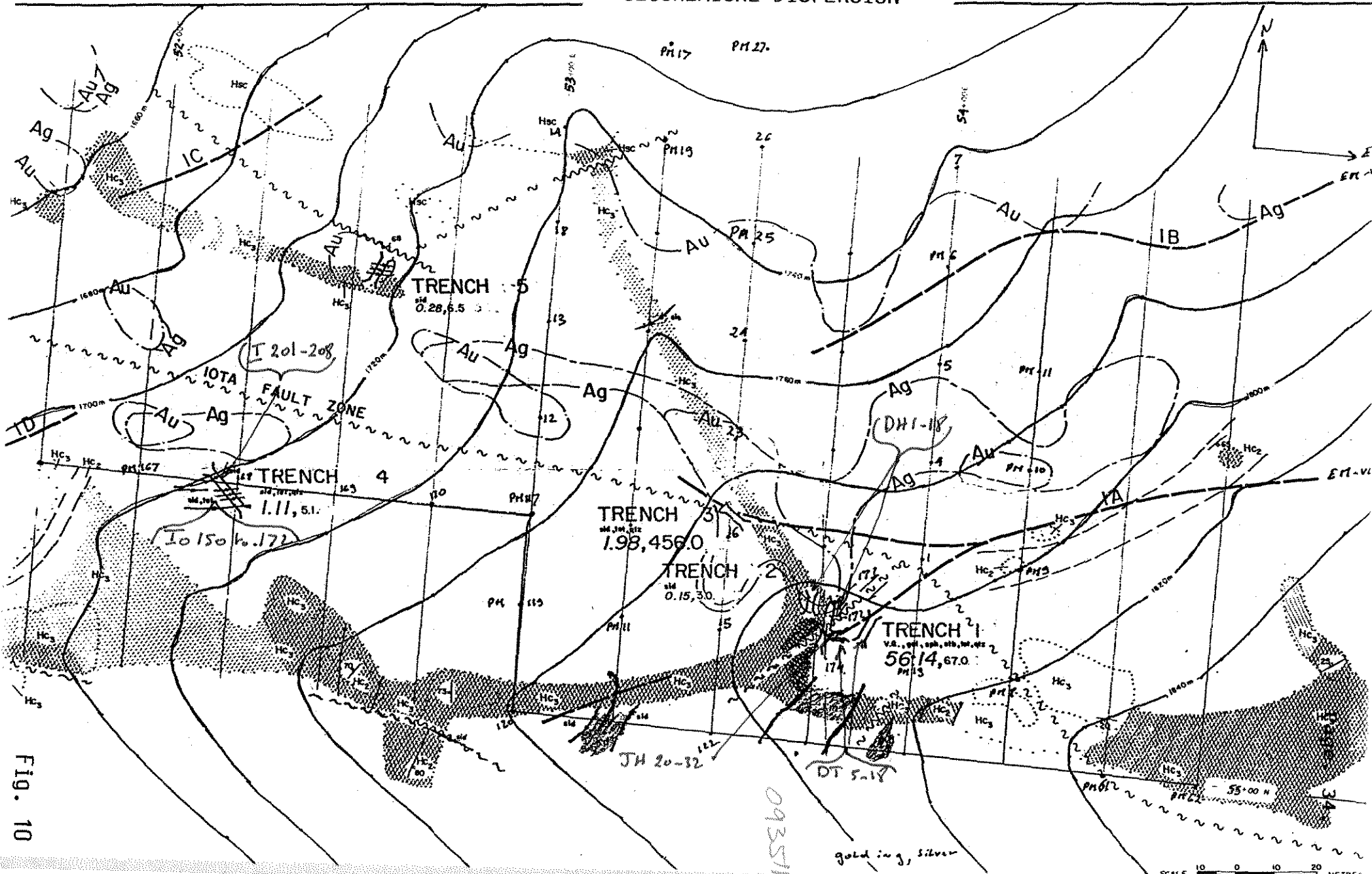


Fig. 10

093571

gold in g, silver

SCALE 0 10 20 METRES

QUATERNARY

7 Overburden

NTS 106C/14  
MAYO MINING DISTRICT, YUKON TERRITORY

SCALE  METRES

HELIKIAN OR YOUNGER

6 Quartz vein: contains native gold, tetrahedrite, sphalerite and galena

5 Fault gouge: yellow and/or reddish, clayey fault gouge with dolostone fragments

HELIKIAN

WERNECKE SUPERGROUP


Gillespie Lake Group

4 Argillaceous dolostone: grey, fractured; 4a, highly fractured and silicified

3 Silicified dolostone: cream coloured, fractured, contains clayey fault gouge


2 Dolostone: brown, highly fractured, contains clayey fault gouge


1 Crystalline dolostone: buff to brown; 1a, highly fractured equivalent


 Trench outline


 Geological contact: defined

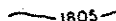
 Trend of bedding

 Vein attitude: inclined

 Rock chip sample: identifier (prefix 106C8 omitted), gold in grams per tonne

22K0007 107.93  Sample with gold greater than or equal to 1.00 grams per tonne

2485004 Au, tet, gal, sph, qtz 188.6, 87.8  Rock grab sample: identifier (prefix 106C8 omitted); minerals present, gold in grams per tonne, silver in grams per tonne

 1805 Topographic contour: elevation in metres above sea level with respect to datum of 1,800 m established for station 1

Mineral Abbreviations

Au	visible gold	sph	sphalerite
gal	galena	tet	tetrahedrite
qtz	quartz		

## V. RESULTS EVALUATION

The Dolores-Iota property consists of Iota and Ruby claims and covers very promising gold and copper-gold-cobalt outcrops with potential for large deposits such as the Olympic Dam type of S-W Australia.

1992-95 rock assays confirmed the wide spread of gold enrichment in areas with base metals association; some of the metal values are outlined below.

Gold values range from 0.3 to 0.6 oz./ton with copper (1% to 9%) associated to poly-metallic elements, mainly antimony and lead. Gold values are not always consistent and are influenced by location, quartz flooding & alteration.

Gold values of 0.5 to 0.7oz./ton are related to 15% iron in quartz veinlets or to the Tetrahedrite creek iron breccia contact. When iron is low (in the 2% range), gold (0.7oz./ton) is found with 3% copper and a polymetallic suite of metals.

Gold values are twice as high (1.40oz./ton) when copper drops within the 0.8% range with low iron contact; gold value averages + 2oz./ton in contact with shear zones as indicated by 90% coarse (-35, +150) mesh size which holds 90% of the total gold.

Distinction between 5 types of mineral assemblage based on geology and metal values may lead to a better zoning definition. Elements like Sb, Cd, Pb, Ag, and zinc are indicative of zoning and will help in qualifying the various ore zones.

We have confirmed the presence of intrusive below 2,000 feet of meta-sedimentary units; therefore the strong possibility of several major feeder systems relating to separate ore zones.

The eastern portion of the 3 kilometers Iota fault seems to be the location of an ancient feeder zone with high gold values and is cross cut by intrusive dikes of various ages. Metal deposition of gold, copper, lead, zinc, and antimony occurs in the areas of cross cutting and silicification and massive rock fracturing.

## V. AFFIDAVIT OF EXPENDITURES

Some 116 man days were expended on this exploration project in 1995. The following list represents invoice expenditures paid for the exploration program conducted on the IOTA-RUBY in 1995.

### A. Exploration Expenses Per Claim Grouping

#### 1. IOTA: 1,2,3,4,5,6,7, 8, 9, 10,31,32,33,34,35, & 36.

\$1,600.00 WORK to be filled which started July 28, 1995.  
 26 man days x \$ 485 /per deum \$ 12,610.00  
 Helicopter & plane / grouping 3,480.55  
 Assays for 11 samples 225.50

Total Expenditure Claimed: \$ 16,316.65

#### 2. IOTA: 11,12,13,14,15,16,17,19, 37, 38, 39,40,41,42,43 & 44.

\$1,600 WORK to be filled which started 29 July, 1995.  
 28 man days x \$ 485 /per deum \$ 13,580.00  
 Helicopter & plane / grouping 3,480.55  
 Assays for 25 samples 512.50

Total Expenditure Claimed: \$ 17,573.05

#### 3. IOTA : 18,20,21,22,23,24,25,26,27,28,29,30 and RUBY 49,50,51 & 52.

\$ 1,600 WORK to be filled which started 3 august, 1995.  
 52 man days x \$ 485/per deum \$ 25,220.00  
 Helicopter & plane/grouping 3,480.55  
 Assays for 66 samples 1,353.00

Total Expenditure Claimed: \$ 30,053.55

#### 4. RUBY : 5,6,7,8,13,14,15,16,17,18,19,20,21,22,23 & 24

\$ 1,600 WORK to be filled which started 3 August, 1995.	
10 man days x \$ 485/per deum	\$ 4,850.00
Helicopter & plane/grouping	4,177.66
Assays for 38 samples	779.00

Total Expenditure Claimed: \$ 9,806.66

**TOTAL EXPENDITURES: \$ 73,749.91**

**B. ZELON EXPLORATION EXPENSES From July 22 to October 02, 1995**

**a) Cost of Assaying**

An average cost of \$ 20.50/Sample has been used

**b) Field Personnel Salaries, Transportation, and Camp Expenses**

The total employees remuneration together with mobilization costs, camp costs, geophysical equipment costs were summarized, and then divided by 116. It represents the best estimate of the actual man days spent by Zelon personnel on this project. This gives us a per deum rate of \$ 485.00.

Helicopter costs as per actual billings and related cost as jet fuel expenses were added to float plane costs. The total was pro rated to each claim groupings.

Each claim, for the cost of work performed on any claim group, represents a combination of a per deum rate as well the cost of flying the men to camp. Therefore, whether the crew was prospecting, blasting, performing geophysics/geochemical surveys or mapping, they are charged at the lowest rate.

Considerable expense was incurred on helicopter and plane travel, but this was inevitable as it is the means of prospecting and ferrying the crew to the claim areas.

## VI. CONCLUSION AND RECOMMENDATIONS

The Dolores IOTA-RUBY project covers several large areas with numerous copper, cobalt, lead, hematite showings with potential for several deposits with ore grade material, similar to the model of the "Olympic Dam" copper deposits of S-W Australia.

However it present a variation of this model with very high lead-zinc and antimony with high precious metal content.


Exploration should incorporate a regional geophysical and sampling survey covering most of the property to tie down promising prospects; followed by detailed ground work to outline the best drill targets.

Trenching geological mapping each anomaly area should be followed by bulk sampling; 10 to 50 lb. per site, then 200lb.per area with economical potential.

- Phase I            Surface exploration and mapping, 45 days, \$280,000**  
 To cover the property with a grid to be soil sampled and used by the geophysical crew.  
 To evaluate the present land holdings in terms of stratigraphy, geology and potential tonnage.
- Phase II            Trenching and Drilling, 8 weeks, \$ 390,000**  
 Select, locate and trench future drill site then run EM Vertical loop and resistivity. Drilling of 10 best rated EM targets throughout the claims area.  
 Drill approximately 30 holes, 1.5 inches by 250 feet long or 7,500 feet of B.Q.drilling.

Respectively submitted,

March 31,1995  
 Zelon Enterprises Ltd.  
 Vancouver, B.C.



John H. Hajek, Project Manager.

# DOLORES CREEK; 106C13-14

## GEOLOGICAL LEGEND

### QUATERNARY

**Q** Alluvium, colluvium and glacial deposits

### UPPER PROTERZOIC to LOWER PALEZOIC

**Peu** Rusty to grey weathering quartz arenite, pinkish orange & grey weathering white carbonate; pebble conglomerate; silstone & shale

### HADRYNIAN

#### Rapitan Group or Windermere Supergroup

5 formations, total 2,500m Ps, Pk, Pt

**Hr** Conglomerate and breccia

**Hr<sub>2</sub>** Conglomerate: well-rounded dolostone cobbles in a silty matrix

**Hr<sub>1</sub>** Breccia: angular slate and dolostone clasts in a clast supported breccia

#### Angular unconfrimity

#### Pinguicula Group;

**Hc<sub>2</sub>** miogeoclinal to platformal PPA to PP

**Hc<sub>1</sub>** Dolostone and limestone: grey weathering, resistant, massive

**Hs** Dolostone: buff weathering, resistant, medium bedded

Slate: maroon and grey slate, shale and siltstone

#### unconformity, Racklan Orogeny

### HELIKIAN

#### WERNECKE SUPERGROUP

##### 1.) Gillespie Lake Group PGL & PGLB

**Hc<sub>5</sub>** Pebbly dolostone: orange weathering, pebbly or sandy dolostone

**Hc<sub>4</sub>** Grey dolostone: grey weathering, grey, massive dolostone

**Hc<sub>3</sub>** Laminated dolostone: laminated- to medium-bedded, buff weathering, grey to white dolostone with minor or no argillite laminae; stromatolites and ripples abundant

**Hc<sub>2</sub>** Thin bedded dolostone & argillite: buff- to orange-weathering, grey dolostone with abundant black argillite, thinly bedded

**Hc<sub>1</sub>** Massive dolostone: buff weathering, grey or white dolostone, thick bedded to massive

## 2.) Quartet Lake Group PQ

**Hsc** Slate, siltstone and argillite: dark grey; minor limy beds

## 3.) Fairchild Lake Group PFL

**He** Silstone with minor carbonate interbed

# HADRYNIAN AND/OR HELIKIAN

## Intrusive rocks

**+Kd+** Diorite and dolerite: brown-weathering, medium grained, altered to chlorite and carbonate, locally pegmatitic, **Pd.**

**Km** Mafic dyke: dark green to greenish grey weathering, dark green, fine- to medium-grained, plagioclase-pyroxene diorite

**Wb** Wernecke Breccia, grey, green and washed red, hematitic & dolomitic breccia with related metasomized & bleached contry rocks.

**++** Intrusive rocks, pegmatite, quartz syenite stock, **Pd.**

## ALTERATION

**--** Iron carbonate alteration: injection of iron to carbonate which produced a reddish-brown colour on weathering

**L** Recrystallization: recrystallization of dolostone and limestone to massive crystalline dolostone

**Si** Silicification: pervasive and/or veinlet silicification

\* Modified after Blusson 1974, Delaney & O.F. 1995-6

## STATEMENT OF QUALIFICATION

I, John Henry Hajek of 4440 Regency Place, West Vancouver, B.C. do hereby declare that I am a professional geochemist and geologist practicing since 1969.

1. My experience includes services as an exploration Geochemist with Rio Tinto of Vancouver, B.C. 1968-72.  
Since 1973, I have conducted and directed property examinations and exploration programs on behalf of companies as a geochemist and geologist in the employment of ZELON ENTERPRISES LTD. VALOR VENTURES LTD. & ZELON CHEMICALS LTD. of which I am part owner.
2. I have practiced continuously as an exploration geochemist - geologist since 1969.
3. This report is based on result of work carried out on the IOTA & RUBY claims, 106 C14, Y. T. under my direct supervision during July 28 to October 06, 1995.
4. Zelon Enterprises Ltd./Valor Ventures Ltd./ Zelon Chemicals Ltd  
1050-1185 W. Georgia  
Vancouver, B.C.

March 30, 1996  
VANCOUVER, B.C.



John H, Hajek  
Geochemist/Mining Consultant

## REFERENCES

ARCHER, A.R.

1968: Assessment Report, September 7, 1968 on the Mammoth 1-108 and 201-250 claims, Yukon; Prepared for Bonnet Plume River Mines Ltd.

GRIGORIAN, S.V.

1977: Geochemical Exploration Methods for Mineral Deposits, Applied Publishing Ltd., p. 76-82, p. 92-94, p. 130-134

HAJEK, J.H.

1980-81 Yukon Territory 1981, Uranium Exploration Program; Zelon-Texaco Internal Report

LAZNICKA, P.

1977: Geology and Mineralization in the Dolores Creek Area, Bonnet Plume Range, Yukon. Geol. Surv. Can. Paper 77-1/A

SMITH, P.M.

1968: Geology and Geochemistry Report on the Bonnet Plume River Area from the Bonnet Plume Pass to Fairchild Lake, Yukon; Prepared for Bonnet Plume River Mines Ltd.

Archer, A. R. T. Bell, and R. I. Thorpe

1986: Age relationships from U-Th-Pb isotope studies of uranium mineralization in Wernecke breccias, Yukon Territory; in Current Research. Part A, Geological Survey of Canada. Paper 86-1A. p.385-391.

Bell, R. T.

- 1978: Megabreccias in northern Wernecke Mountains, Yukon Territory; in Current Research, Part A, Geological Survey of Canada Paper 86-1A, p.375-384.
- Lhotka, P. G. and Olson, R. A.  
1983: Texaco Canada Resources Ltd. Dolores Creek Area, Yukon. Yukon Assessment Reports 091700, NTS: 106C/14; Confidential.
- Cuttle, J.  
1988: Cypress Gold (Canada) Ltd., Wernecke Mountains Area, Yukon. Yukon Assessment Report 092519; NTS:106C/14; Confidential.
- Roberts, D. E. and Hudson, G. R. T.  
1983: The Olympic Dam Copper-Uranium-Gold Deposit; Roxby Downs, South Australia; Economic Geology And The Bulletin Of The Society Of Economic Geologists; Vol. 78, No. 5.
- Grant, F. S. and West, G. F.  
1965: Interpretive Theory in Applied Geophysics p. 307-373. McGraw Hill.
- Walker, R. T. and Walker, W. J.  
1956: The Origin and Nature of Ore Deposits. Colorado Springs, Colorado.
- Laznicka, P. and Edwards, R. J.  
1979: Dolores Creek, Yukon - a Disseminated Copper Mineralization in Sodic Metasomatites. Economic Geology, Vol. 74.

**APPENDIX A**  
**IOTA-RUBY CLAIMS**  
**GEOPHYSICAL FIELD DATA**

***I Iota CLAIM COVERAGE***

Iota Claim 106C-13 Magnetometer Survey Coverage Map

**II. IOTA1A.XLS Magnetic Data File**

Covering Lines 5300, 5325, 5350, 5400, and 5450

Graph (Magnetic Variation vs. Station Location) of Line 5300

Graph (Magnetic Variation vs. Station Location) of Line 5325

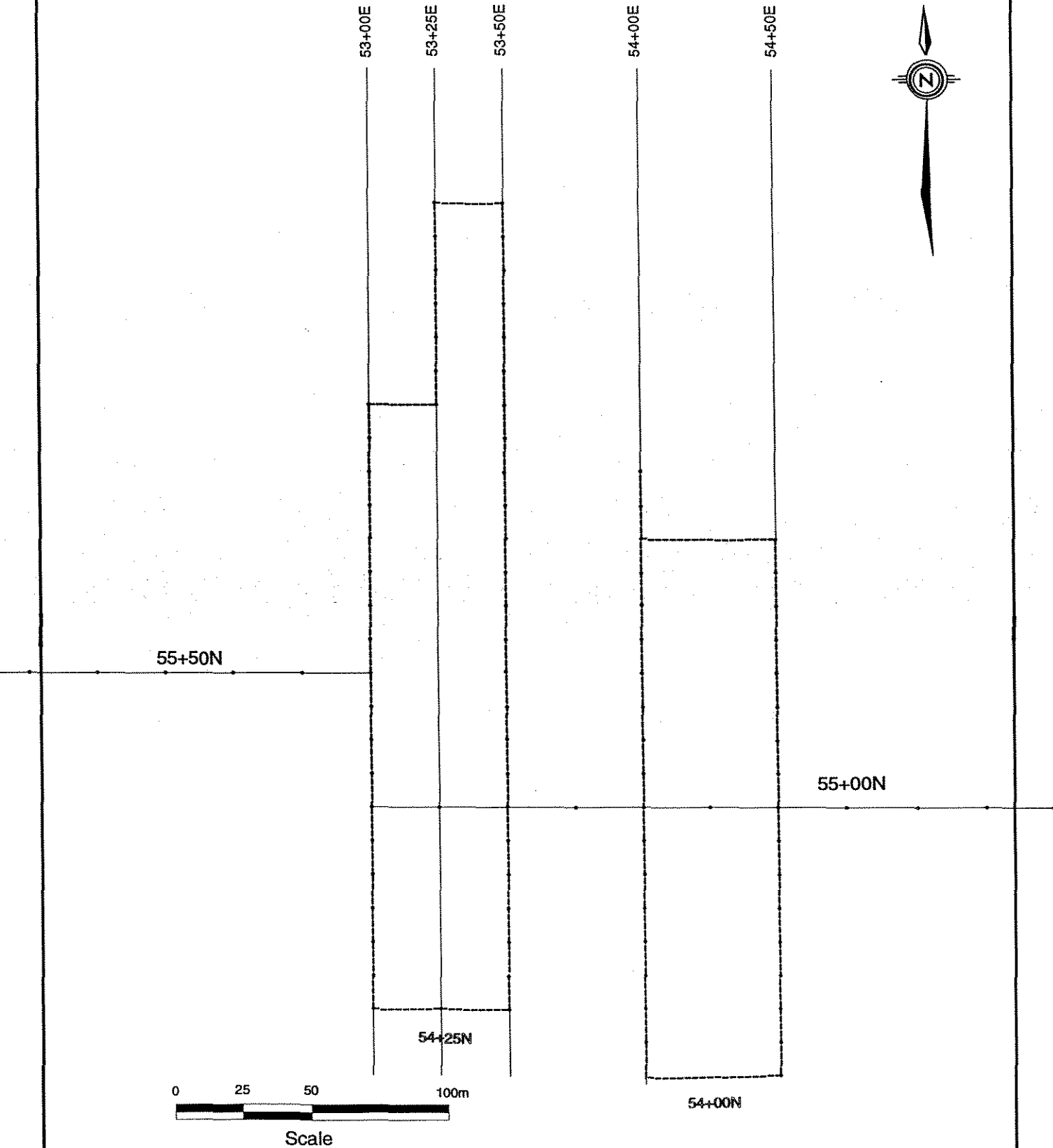
Graph (Magnetic Variation vs. Station Location) of Line 5350

Graph (Magnetic Variation vs. Station Location) of Line 5400

Graph (Magnetic Variation vs. Station Location) of Line 5450

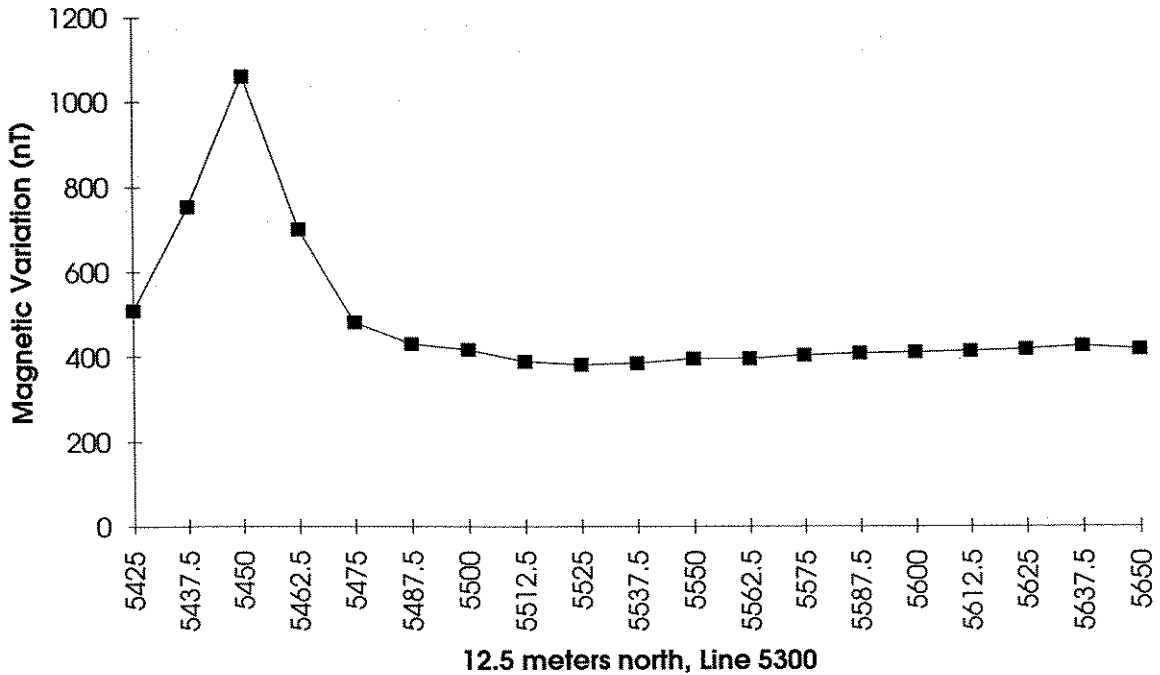
# MAGNETOMETER SURVEY LOCATION

IOTA FAULT 106C-14 LOCALE 1

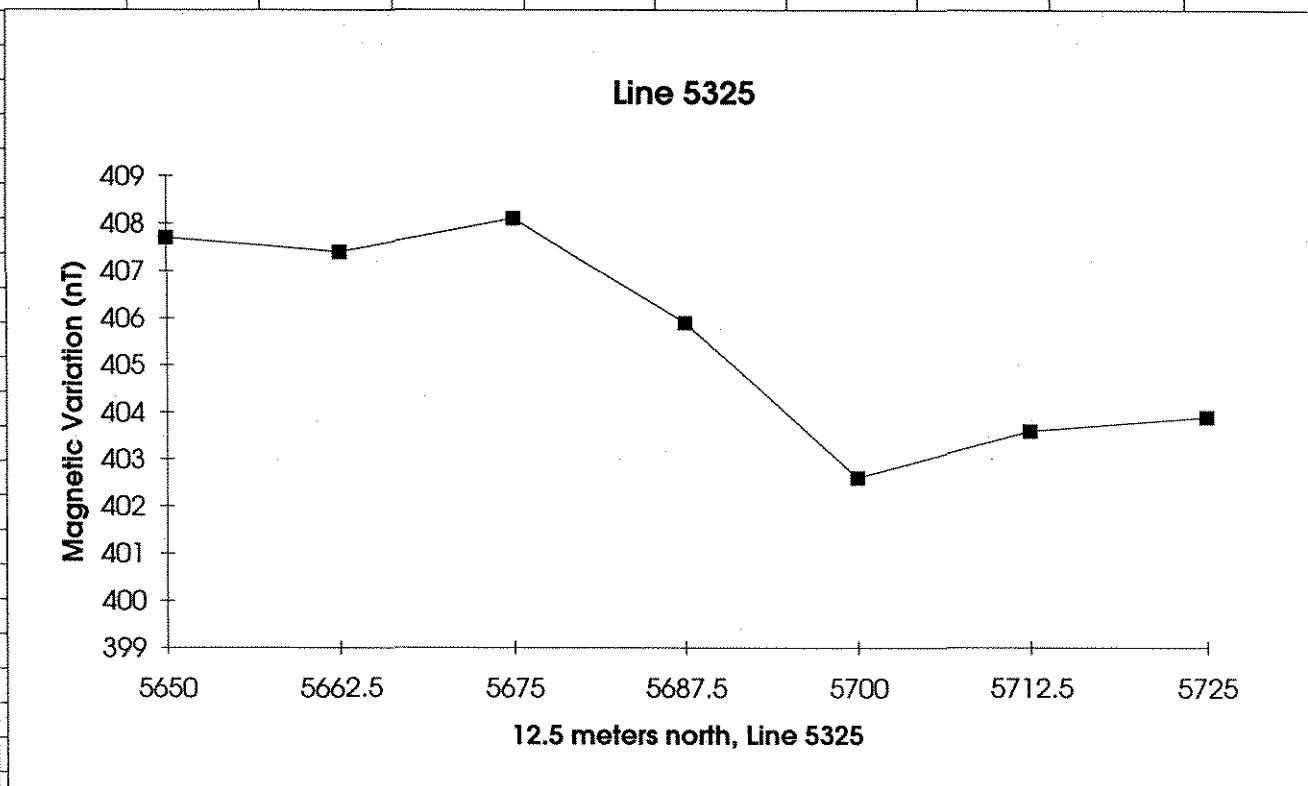


Line 5300			
Total Field	Station, N		Variation
59009.5	5425	58500	509.5
59253.2	5437.5	58500	753.2
59560.4	5450	58500	1060.4
59200.6	5462.5	58500	700.6
58981.8	5475	58500	481.8
58930.7	5487.5	58500	430.7
58917	5500	58500	417
58889.4	5512.5	58500	389.4
58881.2	5525	58500	381.2
58885	5537.5	58500	385
58895.6	5550	58500	395.6
58895.6	5562.5	58500	395.6
58903.7	5575	58500	403.7
58908.3	5587.5	58500	408.3
58910.5	5600	58500	410.5
58914.2	5612.5	58500	414.2
58918.4	5625	58500	418.4
58926.6	5637.5	58500	426.6
58920.2	5650	58500	420.2

Line 5300

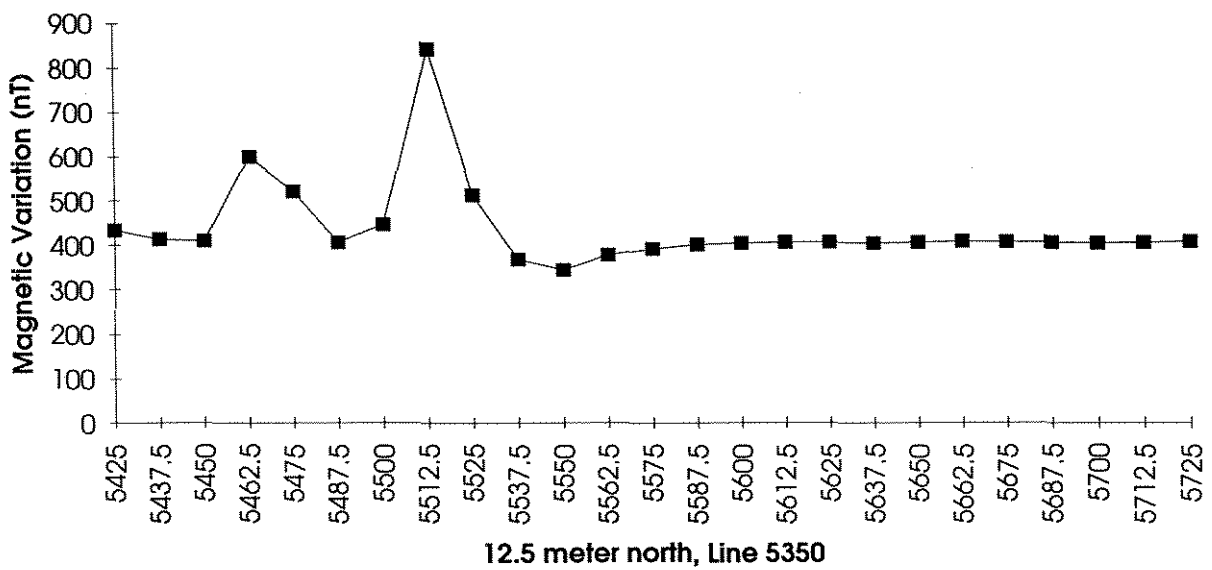


Line 5325			
Total Field	Station, N		Variation
58907.7	5650	58500	407.7
58907.4	5662.5	58500	407.4
58908.1	5675	58500	408.1
58905.9	5687.5	58500	405.9
58902.6	5700	58500	402.6
58903.6	5712.5	58500	403.6
58903.9	5725	58500	403.9

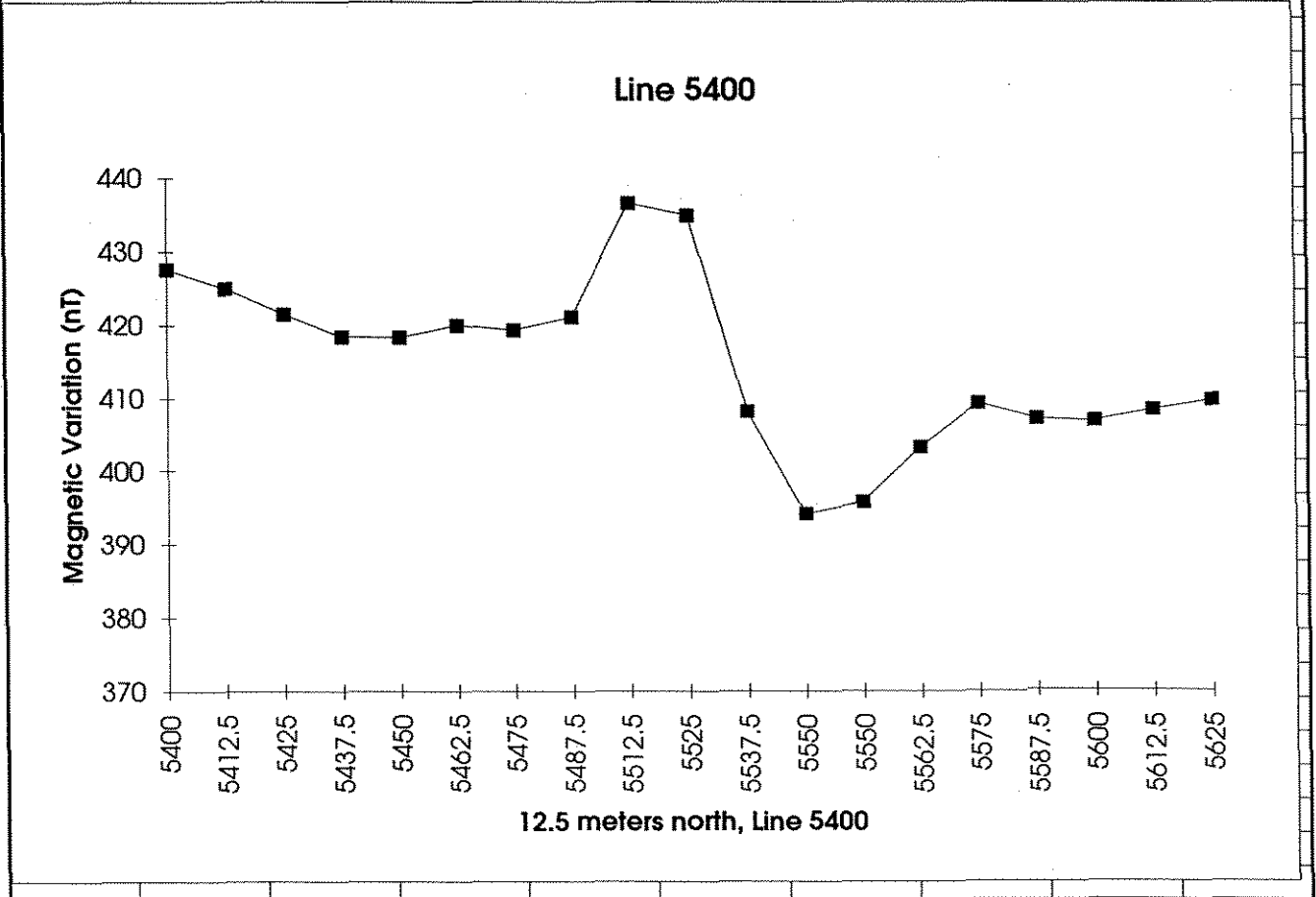


Line 5350	Station, N		Variation
58932.8	5425	58500	432.8
58912.8	5437.5	58500	412.8
58908.6	5450	58500	408.6
59098.8	5462.5	58500	598.8
59020.9	5475	58500	520.9
58905.5	5487.5	58500	405.5
58945.9	5500	58500	445.9
59341.1	5512.5	58500	841.1
59013.2	5525	58500	513.2
58867.9	5537.5	58500	367.9
58843.3	5550	58500	343.3
58878	5562.5	58500	378
58892.5	5575	58500	392.5
58901.1	5587.5	58500	401.1
58904	5600	58500	404
58906.6	5612.5	58500	406.6
58906.3	5625	58500	406.3
58904.3	5637.5	58500	404.3
58906.5	5650	58500	406.5
58908.3	5662.5	58500	408.3
58907.1	5675	58500	407.1
58906.6	5687.5	58500	406.6
58905.4	5700	58500	405.4
58906.5	5712.5	58500	406.5
58908.3	5725	58500	408.3

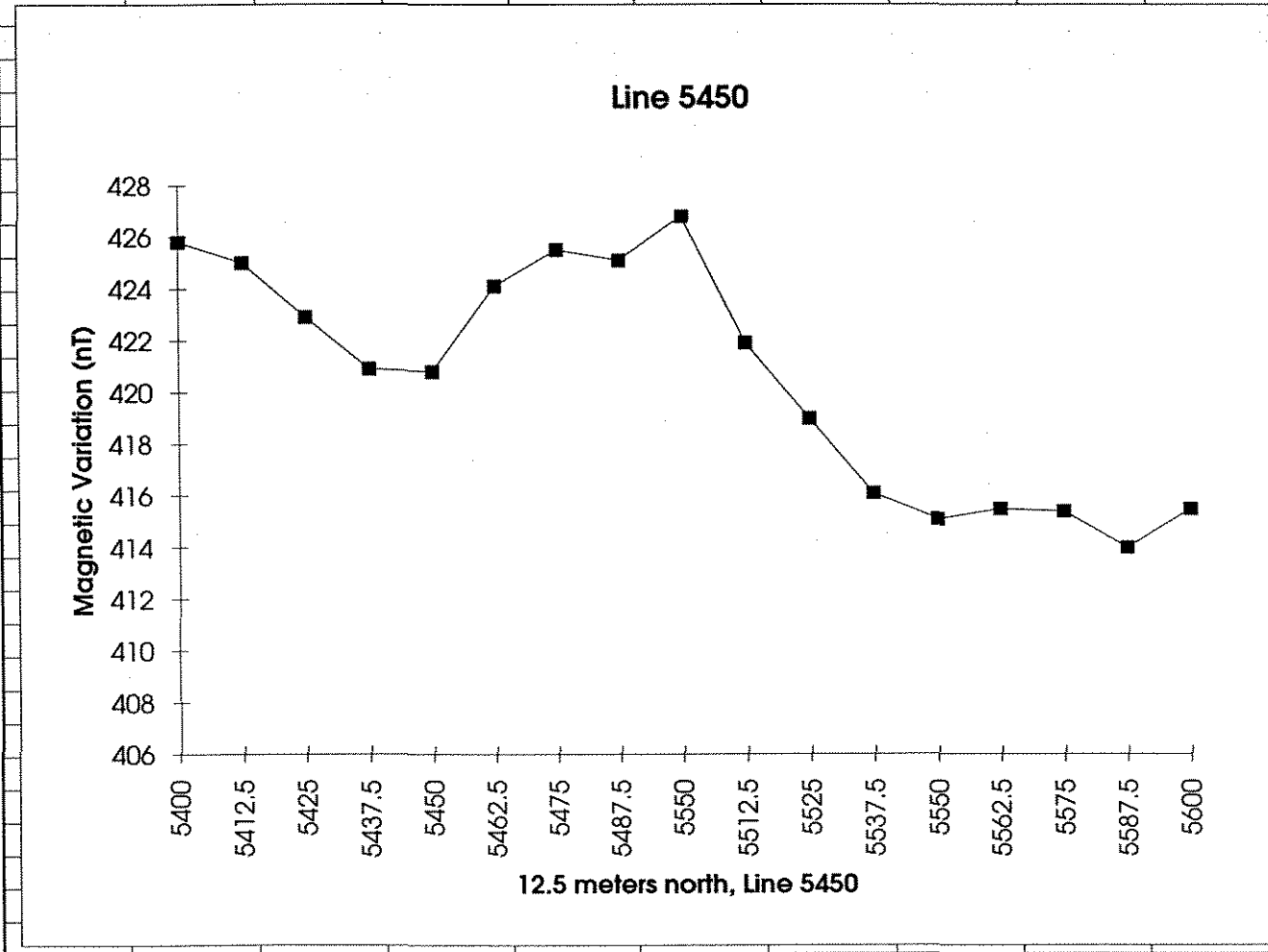
Line 5350



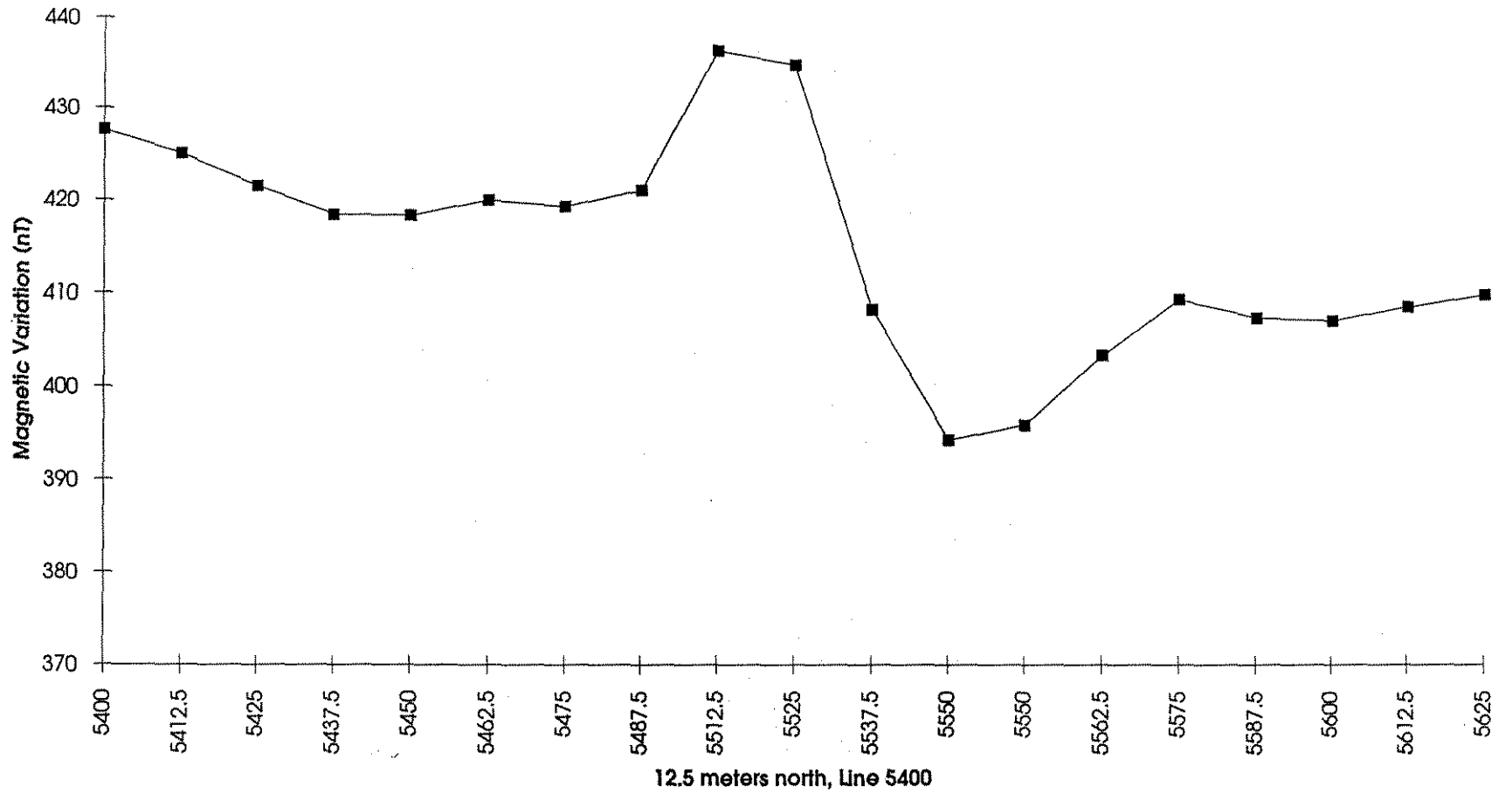
Line 5400				
Total Field	Station, N		Variation	
58927.6	5400	58500	427.6	
58925	5412.5	58500	425	
58921.5	5425	58500	421.5	
58918.4	5437.5	58500	418.4	
58918.3	5450	58500	418.3	
58920	5462.5	58500	420	
58919.3	5475	58500	419.3	
58921.1	5487.5	58500	421.1	
58936.5	5512.5	58500	436.5	
58934.9	5525	58500	434.9	
58908.2	5537.5	58500	408.2	
58894.2	5550	58500	394.2	
58895.8	5550	58500	395.8	
58903.3	5562.5	58500	403.3	
58909.3	5575	58500	409.3	
58907.3	5587.5	58500	407.3	
58907	5600	58500	407	
58908.5	5612.5	58500	408.5	
58909.8	5625	58500	409.8	



Line 5450				
Total Field	Station, N		Variation	
58925.8	5400		58500	425.8
58925	5412.5		58500	425
58922.9	5425		58500	422.9
58920.9	5437.5		58500	420.9
58920.8	5450		58500	420.8
58924.1	5462.5		58500	424.1
58925.5	5475		58500	425.5
58925.1	5487.5		58500	425.1
58926.8	5550		58500	426.8
58921.9	5512.5		58500	421.9
58919	5525		58500	419
58916.1	5537.5		58500	416.1
58915.1	5550		58500	415.1
58915.5	5562.5		58500	415.5
58915.4	5575		58500	415.4
58914	5587.5		58500	414
58915.5	5600		58500	415.5



Line 5400



## APPENDIX B : ANALYTICAL & ASSAY RESULTS

- 1995 Field Sample Description ,
- 1995 Assays & Geochemical Analysis

### NAL Invoice

“	“	06/10/95	#	WO 15370
“	“	16/10/95	#	WO15382
“	“	03/11/95	#	WO15414
“	“	03/11/95	#	WO15414A
“	“	09/11/95	#	WO 15445

### IPL Invoice

“	01/11/95	#	95 J 2402
“	03/11/95	#	95 J 3006
“	17/11/95	#	95 K1011
“	26/09/95	#	95 I 1901
“	26/09/95	#	95 I 1902

LORING LAB 22/09/95 # 37678

LORING LAB 22/09/95 # 37678-1

CHEMEX LAB 25/09/95 # 9528119

**IOTA CLAIMS, DOLORES CR., PROJECT**  
Rock sample description

**I. Local 1 Discovery Trench No.1**

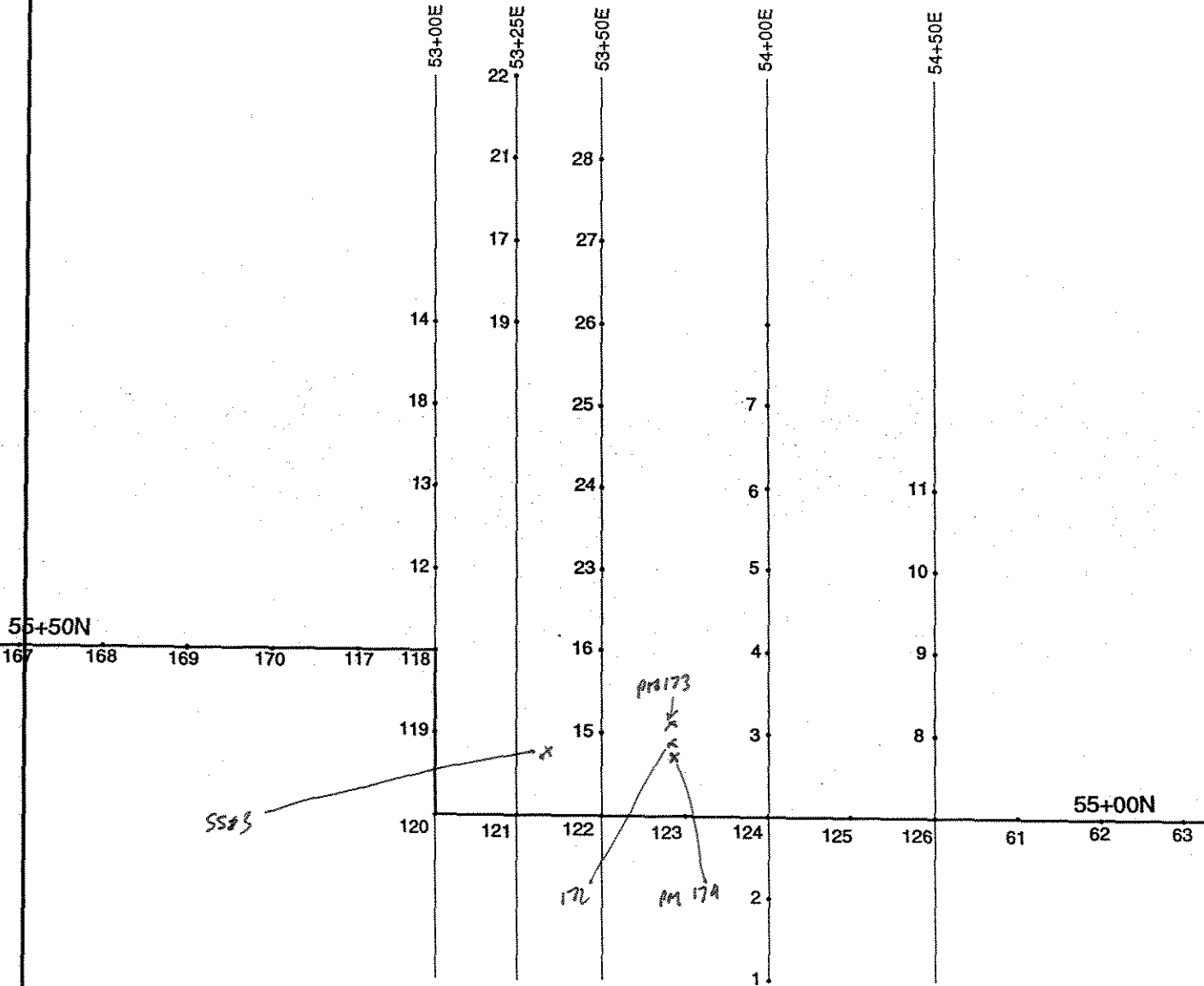
Iota #19

- DH-195 6" vein, fractured quartz metrix (50% quartz with visible gold and no sulfides), upper east section of trench.  
Au 8.7oz/ton and 314 g. ICP, Ag 1.9 oz.  
Cu 1%, Sb 1.7%, Bi 196, Fe 1.9%,  
Pb 3.8%, Zn 1.4%, Cd, As 175, Cr 380
- DH-295 wall rock from mineralized vein no visible mineralization  
Cu, Sb 717, Fe 8%, U, P, Cr, Ba, Al 5%, K 2.9%  
Pb, Zn, Cd, As, Cr, Zr, Y
- DH-395 White quartz no visible mineralization  
Cu, Sb, Fe 17%, Mg 6%,  
Pb, Zn, Cr, Mn 0.8%
- DH-495 Fractured quartz with minor sulfides  
Au 0.38 oz./ton  
Cu, Sb 0.1%, Fe 8%, Be,  
Pb, Zn 4%, Cd 176, As, Cr, K
- DH-595 4" quartz vein with galena and sulfides  
Au 0.58 oz./ton, Ag 3.2 oz.  
Cu 1.3%, Sb 2%, Bi 216, Fe 2%,  
Pb 4%, Zn +10%, Cd 524 As, Cr
- DH-695 Quartz vein with sphalerite  
Au 0.12oz./ton, Ag 1oz.  
Cu, Sb 0.18%, Fe 2%. Sn,  
Pb 1.7%, Zn +10%, Cd 0.4%, Ni, Co, Cr,
- DH-795 Quartz matrix from blasting with bright metallic sulfides  
(solid state solution)  
Au 6.4oz./ton and 110 g. ICP, AG 3oz.  
Cu 4.3%, Sb 5.4%, Bi 742,  
Pb 4.3%, Zn 9.4%, Cd 404, Cr
- DH-995 Wall rock with 6" quartz vein and sulfides  
Cu 0.6%, Sb 0.8%, Bi 109, Fe 15%, As  
Pb 1.8%, Zn 8.2%, Cd 282, Ni, Co,
- DH-1095 Quartz with mixed sulfides  
Au 5.3oz./ton and 217 ICP, Ag 2 oz.  
Cu 4%, Sb 5.3%, Bi 827  
Pb 4%, Zn 4.8%, Cd 213, As, Cr,
- DH-1195 Composite sample of above locations  
Au 0.57 oz./ton,  
Cu 0.2%, Sb 0.3%, Bi 340, Fe 13%  
Pb 0.7%, Zn 1.6%, Cd, Mn 0.6%

- DH-1295 Quartz with fine grain sulfides  
Au 0.1oz./ton,  
Cu, Sb, Fe 21%, Mn 0.8%  
Pb, Zn, As, Bi
- DH-1395 Discovery trench massive sphalerite  
Au 0.3oz. Ag 2oz.  
Cu, Hg, As, Sb, Fe 2%  
Pb 0.6%, Zn +10%, Cd +100, Na.
- DH-1595 Quartz sample of vein VG.  
Au 3.1oz. Ag 1oz.  
Cu 0.4%, Sb 0.7%, Bi +100, Cr, Hg  
Pb-Zn +1%, Cd +100, As.
- DT-595 RAM #2, Gossan float with chalcopyrite  
Cu 4.7%, Mo 51, Fe 9%, Ca 2%, Al 4%,  
Na, K 3.9% U 35, P, La, and Y
- DT-695 RAM #2, Tetrahedrite creek gossan, cobaltite-chalcopyrite  
on shear zone, Au 0.06, Ag 2oz.  
Cu 1.5%, Sb 0.7%, Bi 3.6%, Fe 26%,  
Ni, Co 0.9%, Mn 1.2%, U,  
Pb, Zn, As 0.2%, Mg 5%,
- DT-795 Same as above, but high grade mineralization only  
Au 0.18oz./ton and 18 ICP, Ag 1.4 oz./ton  
Cu 1.2%, Sb 1.8%, Bi 2.9%, Fe 12%,  
Ni 0.2%, Co 2.8% Mn 0.6%, U 43  
Pb, Zn, As 0.9%,
- DT-895 Wall rock,  
Cu, Sb, Bi 0.3%, Ca 10%  
Pb, Zn +10%, Cd 429, Co, As, Mg
- DT-1595 Sedimentary wall rock  
Cu 10%, Mo 42, Bi 428, Fe 18%  
Zn, U 55, P, La, K 2% and Be
- DT-1695 Carbonate with 25% sulfides  
Cu +10, Mo 42, Bi 298, Fe 18%  
Zn, U 65, P, La, K 2.9% and Bi

# DOLORS CREEK YT 106C-14

## IOTA FAULT LOCAL 1

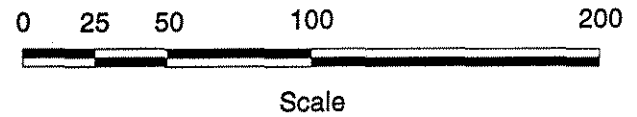
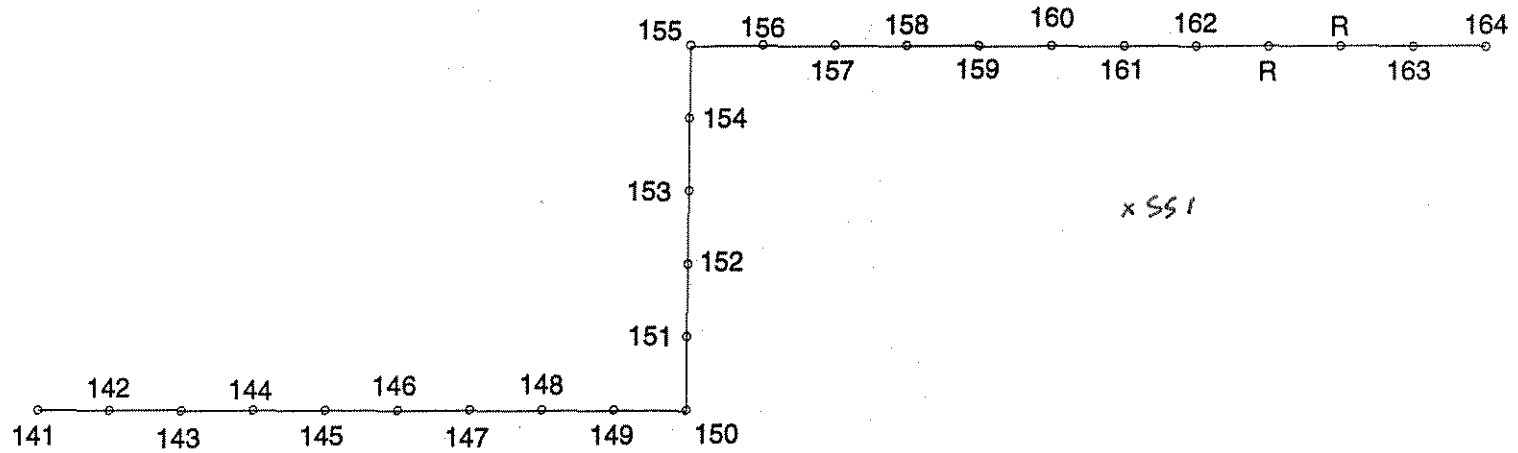


# SOIL SAMPLE LOCATION

## RUBY PASS 106C-14 LOCALE 3 & 4



Base Line 55+75N



x SS2

ZELON GEOCHEMICAL DATA CODE

1. Sample No PV.JH 321: Sample location is represented by digits 321.
2. TYPE of sample:
  1. St - Silt
  2. So - Soil
  3. Ba - Bank
  4. Pa - Paleosoil
  5. Gr - Ground rock
  6. R - Rock
  7. V - Vegetation
  8. Rt - Roots
  9. Le - Leaves
  10. Sg - Spring mud
  11. Se - Seepage mud
  12. Lc - Lake sediment
  13. Pd - Pond
  14. Wi - Water-ice
  15. Pl - Plankton
3. Ph read to 1/10 of one unit.
4. Temperature recorded after 60s.
5. Depth in meters or feet.
6. ORIGIN:
  1. St - Stream sediment
  2. S1 - slope
  3. T - Talus
  4. Bk - Bank
  5. Ri - Ridge
  6. Af - Alluvial fan
  7. Sg - Spring
  8. Se - Seepage
  9. La - Lake, cirque
  10. Sw - Swamp
  11. Wa - Wash, pediment
  12. Pl - Playa, dry lake
  13. Gp - Grass playa
  14. Aq - Aquifer, well
  15. Pf - Permafrost
  16. Tf - Tundra
  17. Bf - Boreal forest
  18. Sv - Sea vegetation
  19. Ss - Sea sediment
  20. G1 - Gulley
7. Colour:

1. Black	6. Purple
2. Grey	7. Green
3. Brown	8. Yellow
4. Ochre	9. Orange
5. Red	10. White

Tone:

  1. Light
  2. Medium
  3. Dark
8. TEXTURE:

1. Clays	a. Fine
2. Silt	b. Medium
3. Sand(1/16-2mm)	c. Coarse
4. Pebble(2-64mm)	d. Suspension
5. Loam	e. Precipitate
6. Ooze only	f. Gel
7. Ooze & inorg	g. Pigment
8. Inorganic only	h. Nodule
9. Wood, Fiber	i. Root org
10. Carbonatite	j. Caliche
11. Skeletal soil	k. Bleached
9. HORIZON:
  1. Lh - Semidecomposed organic
  2. Ae - Sandy loam
  3. A1 - Top of first layer
  4. Om - Decomposed layer
  5. Oh - Highly decomposed
  6. B1 - Second layer top
  7. B2 - Second layer bottom
  8. Bi - Inceptisol, tropical B1
  9. Ba - Altigol, tropical B2
  10. Ap - Cultivation, pasture
  11. AB - Interface of A & B
  12. Fm - Fibrous moss
  13. Pf - Peat fiber
  14. BC - Interface of B & C
  15. C - Third layer mixed soil & rocks
  16. Cs - Saprolite, tropical C
  17. Sh - Volcanic ash
  18. Pa - Paleo-horizon
  19. Cca.- Caliche
  20. De - Detrital
  21. Si - Swamp interface
  22. Tr - Transported
  23. R - Bedrock
10. Soil Order:
  1. Chernozemic  
base saturation, cations (2)
  2. Solonetzic  
"B" & "C" saline, Ca/Na=-10
  3. Luvisolic  
imperfectly drained
  4. Podzolic  
under mixed forest Veg
  5. Brunisolic  
good oxidizing forest floor
  6. Regosolic  
oxidizing weak horizon, Ah
  7. Gleysolic  
reducing, saturated with water

Project Tota  
 Map 106 C14

GEOCHEMICAL DATA SHEET  
 Z E L O N

Date 8/16/95  
 Sampler PM

Sample No.	TYP	pH	t <sup>°</sup> F	DEPTH	ORIG.	COL	TEXT	HOR	NOTES
PM-1	2			1'-7"	2	3-2	3-C	BC	54+50N/54+00E
PM-2	2			1'-6"	2	3-2	3-C	BC	54+75N/54+00E
PM-3	2			1'-7"	2	3-2	3-C	BC	55+25N/54+00E
PM-4	2			1'-6"	2	3-1	3-C	BC	55+50N/54+00E
PM-5	2			1'-7"	2	2-2	1-A	BC	55+75N/54+00E
PM-6	2			1'-5"	2	3-2	3-C	BC	56+00N/54+00E
PM-7	2			2'-8"	2	3-2	3-C	BC	56+25N/54+00E
PM-8	2			2'-7"	2	3-2	3-C	BC	55+25N/54+50E
PM-9	5			3'-10"	2	3-2	4-B	BC	55+50N/54+50E
PM-10	2			2'-12"	2	1-1	3-C	BC	55+75N/54+50E
PM-11	2			1'-6"	2	3-2	3-B	BC	56+00N/54+50E

Project Tota  
 Map 106 C14

GEOCHEMICAL DATA SHEET  
 Z E L O N

Date 8/16/95  
 Sampler PM

Sample No.	TYP	pH	t <sup>°</sup> F	DEPTH	ORIG.	COL	TEXT	HOR	NOTES
PM-12	2			2'-8"	2	3-2	3-B	BC	55+75N/53+00E
PM-13	2			2'-8"	2	3-2	3-C	BC	56+00N/53+00E
PM-14	2			3'-9"	2	3-2	4-B	BC	56+50N/53+00E
PM-15	2			2'-12"	2	3-1	1-C	BC	52+25N/53+50E
PM-16	2			3'-12"	2	3-1	3-B	BC	55+50N/53+50E
PM-17	2			2'-11"	2	3-1	4-B	BC	56+75N/53+25E
PM-18	2			3'-12"	2	3-3	3-C	BC	56+25N/53+00E
PM-19	2			2'-8"	2	2-2	3-C	BC	56+50N/53+25E
PM-20	2			2'-5"	2	3-3	3-C	BC	56+75N/53+50E
PM-21	2			3'-11"	2	3-3	4-C	BC	57+00N/53+25E
PM-22	2			3'-14"	2	4-1	2-C	BC	57+25N/53+25E

Project Tota  
 Map 106 C14

GEOCHEMICAL DATA SHEET  
 Z E L O N

Date 8/16/95  
 Sampler PM

Sample No.	TYP	pH	t <sup>o</sup> F	DEPTH	ORIG.	COL	TEXT	HOR	NOTES
PM-23				3'-12"	2	4-1	2-B	BC	55+75N/53+50E
PM-24				3'-12"	2	3-1	3-B	BC	56+00N/53+50E
PM-25				2'-12"	2	8-2	3-C	BC	56+25N/53+50E
PM-26				2'-10"	2	3-1	3-B	BC	56+50N/53+50E
PM-27				4'-12"	2	2-2	3-B	BC	57+00N/53+50E
PM-28				3'-12"	2	3-1	3-B	BC	57+25N/53+50E

Project Tota  
 Map 106 C-14

GEOCHEMICAL DATA SHEET  
 Z E L O N

Date 8/8/95  
 Sampler PM

Sample No.	TYP	pH	t <sup>o</sup> F	DEPTH	ORIG.	COL	TEXT	HOR	NOTES
PM-61	2			1'-3"	2	3-2	3-C	BC	54+75E/55+00N
PM-62	2			2'-6"	2	3-2	3-B	BC	55+00E/53+00N
PM-63	2			2'-6"	2	3-2	3-B	BC	55+25E/55+00N
PM-64	2			2'-4"	2	3-3	3-B	BC	55+50E/55+00N
PM-65	2			2'-4"	2	3-3	3-A	BC	55+75E/55+00N
PM-66	2			2'-4"	2	3-3	3-A	BC	56+00E/55+00N
PM-67	2			4'-8"	2	3-2	3-B	BC	56+25E/55+00N
PM-68	2			4'-8"	2	3-2	4-A	BC	56+50E/55+00N
PM-69	2			2'-6"	2	3-2	1-B	BC	56+75E/55+00N
PM-70	2			1'-4"	2	4-1	1-B	BC	57+00E/55+00N
PM-71	2			1'-3"	2	3-2	2-B	BC	57+25E/55+00N

Project Jota/Ruby  
 Map 106 C-14

GEOCHEMICAL DATA SHEET  
 Z E L O N

Date 8/11/95  
 Sampler PM

Sample No.	TYP	pH	t°F	DEPTH	ORIG.	COL	TEXT	HOR	NOTES
PM-138	2.			1'-8"	2	4-2	2-C	BC	71+25E/54+50N
PM-139	2.			2'-9"	2	4-3	2-C	BC	71+50E/54+50N
PM-140	2.			2'-6"	2	4-3	2-C	BC	71+75E/54+50N
PM-141	2.			4'-8"	2	4-3	2-C	BC	72+00E/54+50N
PM-142	2.			1'-6"	2	3-3	2-B	BC	72+25E/54+50N
PM-143	2.			2'-7"	2	3-3	2-B	BC	72+50E/54+50N
PM-144	2.			1'-6"	2	3-2	2-A	BC	72+75E/54+50N
PM-145	2.			1'-9"	2	3-2	2-B	BC	73+00E/54+50N
PM-146	2.			1'-6"	2	4-2	1-B	BC	73+25E/54+50N
PM-147	2.			2'-6"	2	4-1	2-B	BC	73+50E/54+50N

Project Jota/Ruby  
 Map 106 C-14

GEOCHEMICAL DATA SHEET  
 Z E L O N

Date 8/12/95  
 Sampler PM

Sample No.	TYP	pH	t°F	DEPTH	ORIG.	COL	TEXT	HOR	NOTES
PM-148	2.			1'-5"	2	4-2	2-B	BC	73+75E/54+50N
PM-149	2.			1'-4"	2	4-1	1-B	BC	74+00E/54+50N
PM-150	2.			0'-3"	2	4-1	2-A	BC	74+25E/54+50N
PM-151	2.			1'-7"	2	2-2	2-B	BC	74+25E/54+75N
PM-152	2.			1'-8"	2	2-2	3-B	BC	74+25E/55+00N
PM-153	2.			1'-5"	2	2-2	2-C	BC	74+25E/55+25N
PM-154	2.			1'-4"	2	2-3	3-C	BC	74+25E/55+50N
PM-155	2.			1'-3"	2	3-1	3-C	BC	74+25E/55+75N
PM-156	2.			1'-6"	2	2-3	3-C	BC	74+50E/55+75N
PM-157	2.			1'-4"	2	3-2	3-B	BC	74+75E/55+75N
PM-158	2.			0'-2"	2	3-2	3-B	BC	75+00E/55+75N





# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221 FAX: 604-984-0218

To: NORTHERN ANALYTICAL LABORATORIES LTD. TORONTO, ONT. CANADA

105 COPPER RD.  
WHITEHORSE, YT  
Y1A 2Z7

A9528119

Comments:

CERTIFICATE

A9528119

(IDT) - NORTHERN ANALYTICAL LABORATORIES LTD.

Project: 15374  
P.O.#: 00867

Samples submitted to our lab in Vancouver, BC.  
This report was printed on 25-SEP-95.

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
225	11	Run as received
229	11	ICP - AQ Digestion charge

\* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
2118	11	Ag ppm: 32 element, soil & rock	ICP-AES	0.2	200
2119	11	Al %: 32 element, soil & rock	ICP-AES	0.01	15.00
2120	11	As ppm: 32 element, soil & rock	ICP-AES	2	10000
2121	11	Ba ppm: 32 element, soil & rock	ICP-AES	10	10000
2122	11	Be ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
2123	11	Bi ppm: 32 element, soil & rock	ICP-AES	2	10000
2124	11	Ca %: 32 element, soil & rock	ICP-AES	0.01	15.00
2125	11	Cd ppm: 32 element, soil & rock	ICP-AES	0.5	100.0
2126	11	Co ppm: 32 element, soil & rock	ICP-AES	1	10000
2127	11	Cr ppm: 32 element, soil & rock	ICP-AES	1	10000
2128	11	Cu ppm: 32 element, soil & rock	ICP-AES	1	10000
2150	11	Fe %: 32 element, soil & rock	ICP-AES	0.01	15.00
2130	11	Ga ppm: 32 element, soil & rock	ICP-AES	10	10000
2131	11	Hg ppm: 32 element, soil & rock	ICP-AES	1	10000
2132	11	K %: 32 element, soil & rock	ICP-AES	0.01	10.00
2151	11	La ppm: 32 element, soil & rock	ICP-AES	10	10000
2134	11	Mg %: 32 element, soil & rock	ICP-AES	0.01	15.00
2135	11	Mn ppm: 32 element, soil & rock	ICP-AES	5	10000
2136	11	Mo ppm: 32 element, soil & rock	ICP-AES	1	10000
2137	11	Na %: 32 element, soil & rock	ICP-AES	0.01	5.00
2138	11	Ni ppm: 32 element, soil & rock	ICP-AES	1	10000
2139	11	P ppm: 32 element, soil & rock	ICP-AES	10	10000
2140	11	Pb ppm: 32 element, soil & rock	ICP-AES	2	10000
2141	11	Sb ppm: 32 element, soil & rock	ICP-AES	2	10000
2142	11	Sc ppm: 32 elements, soil & rock	ICP-AES	1	10000
2143	11	Sr ppm: 32 element, soil & rock	ICP-AES	1	10000
2144	11	Ti %: 32 element, soil & rock	ICP-AES	0.01	5.00
2145	11	Tl ppm: 32 element, soil & rock	ICP-AES	10	10000
2146	11	U ppm: 32 element, soil & rock	ICP-AES	10	10000
2147	11	V ppm: 32 element, soil & rock	ICP-AES	1	10000
2148	11	W ppm: 32 element, soil & rock	ICP-AES	10	10000
2149	11	Zn ppm: 32 element, soil & rock	ICP-AES	2	10000



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 604-984-0221 FAX: 604-984-0218

To: NORTHERN ANALYTICAL LABORATORIES LTD.

105 COPPER RD.  
 WHITEHORSE, YT  
 Y1A 2Z7

Project: 15374  
 Comments:

Page: 1 of 1  
 Total Pages: 1  
 Certificate Date: 25-SEP-95  
 Invoice No.: I9528119  
 P.O. Number: 00867  
 Account: IDT

\* PLEASE NOTE

## CERTIFICATE OF ANALYSIS

A9528119

SAMPLE	PREP CODE	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm
DH 1395	225 229	68.0	< 0.01	148	< 10	< 0.5	< 2	0.25	>100.0	6	4	797	2.32	< 10	189	< 0.01	< 10	0.67	680	< 1
DH 1595	225 229	33.2	0.04	416	< 10	< 0.5	100	0.74	>100.0	4	110	4270	2.59	< 10	45	0.02	< 10	1.24	1080	< 1
DH 1695	225 229	2.4	0.01	44	< 10	< 0.5	< 2	0.02	22.0	2	220	271	2.34	< 10	2	< 0.01	< 10	0.69	975	< 1
DH 1795	225 229	28.8	0.06	>10000	10	< 0.5	< 2	< 0.01	< 0.5	< 1	88	34	2.04	< 10	< 1	0.03	< 10	0.01	25	< 1
DH 1895	225 229	40.8	0.02	298	< 10	< 0.5	20	0.01	65.0	< 1	222	949	0.77	< 10	10	< 0.01	< 10	0.21	220	< 1
JH 2095	225 229	41.6	0.01	458	< 10	< 0.5	Intf*	0.04	>100.0	2	51	>10000	1.03	< 10	101	< 0.01	< 10	0.15	200	< 1
JH 2195	225 229	5.4	0.29	56	10	< 0.5	Intf*	2.57	0.5	12	45	>10000	6.34	< 10	1	0.12	< 10	1.21	1530	37
JH 3095	225 229	5.0	0.16	2010	10	< 0.5	22	1.77	< 0.5	18	46	217	12.20	< 10	< 1	0.08	< 10	1.90	8020	< 1
JH 3295	225 229	119.0	< 0.01	>10000	10	< 0.5	12	0.01	Intf*	< 1	21	161	14.75	< 10	< 1	0.01	< 10	0.01	30	< 1
JH 5195	225 229	2.8	0.27	8380	10	< 0.5	< 2	0.48	Intf*	57	48	69	9.87	< 10	< 1	0.19	< 10	2.08	4110	< 1
JH 5395	225 229	10.6	0.06	6070	10	< 0.5	< 2	0.01	Intf*	< 1	97	10	0.94	< 10	< 1	0.02	< 10	0.01	20	< 1

CERTIFICATION: *Hart Buehler*

\* INTERFERENCES: Cu on Bi, and As on Cd.



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 Brooksbank Ave., North Vancouver  
British Columbia, Canada V7J 2C1  
PHONE: 604-984-0221 FAX: 604-984-0218

To: RTH ANAL LAB TORI D.

105 COPPER RD.  
WHITEHORSE, YT  
Y1A 2Z7

Project: 15374  
Comments:

Page Number: 1-P  
Total Pages: 1  
Certificate Date: 25-SEP-95  
Invoice No.: I9528119  
P.O. Number: 00867  
Account: IDT

\* PLEASE NOTE

## CERTIFICATE OF ANALYSIS A9528119

SAMPLE	PREP CODE	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
DH 1395	225 229	0.06	18	100	6670	130	< 1	2	< 0.01	< 10	< 10	< 1	< 10	>10000
DH 1595	225 229	0.03	22	70	>10000	7730	1	4	< 0.01	< 10	< 10	1	< 10	>10000
DH 1695	225 229	< 0.01	20	10	388	212	< 1	3	< 0.01	< 10	< 10	2	< 10	5700
DH 1795	225 229	< 0.01	1	170	2270	50	< 1	2	< 0.01	< 10	< 10	1	< 10	288
DH 1895	225 229	< 0.01	3	10	4840	1950	< 1	1	< 0.01	< 10	< 10	1	10	5340
JH 2095	225 229	0.06	< 1	160	>10000	>10000	< 1	1	< 0.01	< 10	< 10	< 1	< 10	>10000
JH 2195	225 229	0.01	8	490	16	22	2	18	< 0.01	< 10	30	6	< 10	200
JH 3095	225 229	< 0.01	23	440	190	48	2	22	< 0.01	< 10	< 10	9	< 10	126
JH 3295	225 229	0.02	< 1	130	4000	338	< 1	1	< 0.01	< 10	< 10	2	< 10	1385
JH 5195	225 229	< 0.01	222	1370	206	58	10	9	< 0.01	< 10	< 10	26	< 10	1855
JH 5395	225 229	< 0.01	1	130	904	20	< 1	1	< 0.01	< 10	< 10	1	< 10	196

CERTIFICATION: *Hart Buchler*

\* INTERFERENCES: Cu on Bi, and As on Cd.

20/09/95

Assay Certificate

Page 1

Valor Ventures

WO#15374

Sample # Au oz/ton Ag oz/ton

Sample #	Au oz/ton	Ag oz/ton	
DH-13-95	0.309	0.73	Matrix Sphalerite
DH-15-95	3.120	0.74	quartz only.
DH-16-95	0.950	<0.10	quartz with fracture coating
DH-17-95	0.011	0.86	Wall rock only.
DH-18-95	10.580	1.09	quartz / sulphides.
JH-20-95	3.070	1.30	
JH-21-95	0.008	0.12	
JH-30-95	0.051	0.11	
WW-32-95	0.106	2.91	
WW-51-95	0.011	<0.10	
WW-53-95	0.005	0.26	

Certified by




To : ZELON ENTERPRISES LTD.  
 4440 Regency Place  
 West Vancouver, B.C.  
 V7W 1B5  
 ATTN : John Hajek

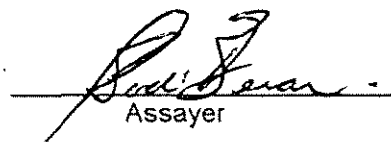


File No : 37678  
 Date : September 22, 1995  
 Samples : Rock Chip  
 Project :  
 P.O.#

## Certificate of Assay Loring Laboratories Ltd.

Sample No.	OZ./TON GOLD	OZ./TON SILVER
"Assay Analysis"		
DH- 1-95	8.731	1.97
DH- 2-95	0.008	<0.01
DH- 3-95	0.025	<0.01
DH- 4-95	0.362	0.14
DH- 5-95	0.589	3.20
DH- 6-95	0.126	1.42
DH- 7-95	6.477	3.05
DH- 9-95	0.016	0.12
DH-10-95	5.379	2.18
DH-11-95	0.579	0.24
DH-12-95	0.109	0.01

I HEREBY CERTIFY that the above results are those assays made by me upon the herein described samples :

  
 Assayer

Rejects and pulps are retained for one month unless specific arrangements are made in advance.

*M*



# LORING LABORATORIES LTD.

629 Beaverdam Rd, N.E.  
Calgary, Alberta T2K 4W7

Tel: (403) 274-2777  
Fax: (403) 275-0541

## 35 ELEMENT ICP ANALYSIS

TO: ZELON ENTERPRISES LTD.

FILE NO.: 37678-1

CC: DIAMOND EXPLORATIONS LTD.

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Sn	Y	Nb	Be	Sc		
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
DH-1-95	2	10843	38023	14796	65.2	11	2	694	1.91	175	<10	314	2	11	90.3	17102	196	7	.25	.015	2	380	.44	44	<.01	.22	.02	.10	<4	2	5	<2	<2	<1	<1		
DH-2-95	3	261	1163	1762	1.3	109	31	4469	8.71	349	16	<4	3	14	10.8	717	9	175	.27	.105	5	295	3.09	115	.38	4.97	.01	2.90	<4	73	6	10	<2	<1	13		
DH-3-95	<2	159	620	2325	.7	33	<2	8381	17.26	46	10	<4	<2	3	7.4	174	<5	10	.23	.003	<2	171	6.74	7	<.01	.09	.01	.03	<4	<2	3	3	<2	6	7		
DH-4-95	2	1104	3795	42650	4.8	37	4	4309	8.42	137	<10	<4	<2	3	176.5	1288	28	25	.10	.021	<2	248	3.63	17	.03	.61	.01	.32	<4	10	3	2	<2	<1	4		
DH-5-95	<2	13839	43402	99999	97.5	13	3	830	2.35	119	<10	<4	<2	5	524.0	20139	216	5	.02	.017	<2	252	.54	7	<.01	.16	.01	.07	5	2	<2	<2	<2	<1	<1		
DH-6-95	<2	1815	17804	99999	47.1	113	33	1150	2.54	76	<10	<4	<2	5	1464.2	1810	15	14	.49	.003	<2	255	.63	4	<.01	.12	.01	.01	<4	<2	16	<2	<2	<1	3		
DH-7-95	<2	43074	43712	94024	84.3	21	4	168	.88	86	<10	110	<2	4	404.4	54847	742	4	.04	.053	<2	237	.08	6	<.01	.19	.01	.09	<4	<2	<2	<2	<2	<1	<1		
DH-9-95	<2	6873	18940	82488	8.5	100	26	6184	14.80	158	<10	<4	2	5	282.5	8972	109	39	.11	.040	2	207	5.11	26	.07	1.13	.01	.64	<4	19	2	4	<2	<1	5		
RE DH-9-95	<2	6684	18936	82144	8.5	100	27	6208	14.87	172	<10	<4	<2	5	289.3	9059	120	39	.11	.040	2	217	5.15	26	.06	1.14	.01	.64	<4	21	4	4	<2	<1	5		
DH-10-95	<2	41272	44809	48838	68.7	21	11	402	1.67	129	<10	217	<2	22	213.3	53760	827	4	.06	.052	3	238	.29	13	<.01	.24	.01	.09	<4	2	<2	<2	<2	<1	1		
DH-11-95	<2	2415	7134	16946	6.9	46	24	6018	13.45	123	<10	7	<2	22	60.0	3354	340	16	2.89	.011	3	177	6.21	25	.01	.58	.01	.28	<4	6	<2	3	2	<1	4		
DH-12-95	<2	604	1503	1548	2.7	90	14	8496	21.06	108	<10	<4	<2	4	<.4	735	13	47	.29	.015	<2	171	5.95	16	.02	.64	.01	.34	<4	8	2	6	<2	8	21		
DT-5-95																																					
DT-6-95																																					
DT-7-95																																					
DT-8-95																																					
DT-15-9																																					
DT-16-9																																					
KE-81-9																																					
RA-1-95																																					
RA-2-95																																					
RA-3-95																																					
RA-4-95																																					
RA-5-95																																					
RA-6-95																																					
STANDARD CT	18	50	41	144	5.9	66	30	1181	4.44	40	20	5	39	237	17.6	17	19	108	1.21	.113	39	99	1.22	827	.33	6.97	1.61	1.92	25	44	16	10	6	1	15		

ICP - .250 GRAM SAMPLE IS DIGESTED WITH 10ML HClO4-HNO3-HCL-HF AT 200 DEG. C TO FUMING AND IS DILUTED TO 10 ML WITH DILUTED AQUA REGIA. THIS LEACH IS PARTIAL FOR MAGNETITE, CHROMITE, BARITE, OXIDES OF AL, ZR & MN AND MASSIVE SULFIDE SAMPLES. AS, CR, SB, AU SUBJECT TO LOSS BY VOLATILIZATION DURING HClO4 FUMING.

- SAMPLE TYPE: PULP Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.





INTERNATIONAL PLASMA LABORATORY LTD.

CERTIFICATE OF ANALYSIS

iPL 95K1011

2036 Columbia Street
Vancouver, B.C.
Canada V5Y 3E1
Phone (604) 879-7878
Fax (604) 879-7898

Client: Northern Analytical Laboratories
Project: 15414 e15, 9 Pulp

iPL: 95K1011

Out: Nov 17, 1995
In: Nov 10, 1995

Page 1 of 1
[101718:08:24:59111795]

Section 1 of 2
Certified BC Assayer: David Chiu

Handwritten signature

Table with columns: Sample Name, Ag, Cu, Pb, Zn, As, Sb, Hg, Mo, Tl, Bi, Cd, Co, Ni, Ba, W, Cr, V, Mn, La, Sr, Zr, Sc, Ti, Al, Ca, Fe, Mg, K, Na. Rows include IO 165 95+100, IO 165 95-100+150, IO 165 95-150, IO 166 95+100, IO 166 95-100+150, IO 166 95-150, VV-B-195+100, VV-B-195+150-100, VV-B-195-150.



105 Copper Road
Whitehorse, Yukon
Y1A 2Z7
Ph: (403) 668-4968
Fax: (403) 668-4890

16/11/95

Assay Certificate

Page 1

Zelon Chemicals Ltd.

WO# 15414a

Table with columns: Sample #, total pulp wt gm, wt of +100 gm, wt of -100+150 gm, Au in +100 mg, Au in -100+150 mg, Au in -150 oz/ton, total Au oz/ton. Rows: IO 165 95, IO 166 95.

Min Limit
Max Reported\*
Method
--No Test ins:
International P

0.01 0.01
9.99 5.00
ICP ICP

16/11/95

Assay Certificate

Page 1

Zelon chemicals ltd

WO#15414

re: John Hajek

Sample #	Au oz/ton	Ag oz/ton
IO 150 95	0.054	0.98
IO 151 95	0.148	1.55
IO 152 95	0.323	0.21
IO 152B 95	0.848	0.19
IO 153 95	0.040	0.07
IO 154 95	0.032	0.27
IO 155 95	0.143	0.17
IO 156 95	0.065	0.62
IO 157 95	0.812	0.16
IO 160 95	0.002	0.01
IO 161 95	0.072	0.66
IO 162 95	0.036	1.26
IO 163 95	1.019	0.88
IO 163B 95	0.082	1.78
IO 164 95	0.304	1.63
IO 167 95	2.598	1.45
IO 171 95	0.004	0.06
IO 172 95	0.011	0.13
PM 11 95	0.051	26.03
MP 11B 95	0.007	0.75

Note: Ag analysed by wet assay, except sample PM 11 95 by fire assay.

Certified by



CERTIFICATE OF ANALYSIS  
iPL 95I1902

2036 Columbia Street  
Vancouver, B.C.  
Canada V5Y 3E1  
Phone (604) 879-7878  
Fax (604) 879-7898

Northern Analytical Laboratories 116 Samples 0= Rock 0= Soil 0= Core 0=RC Ct 116= Pulp 0=Other [076014:27:51:59092695]  
 Out: Sep 26, 1995 Project: 15382 Raw Storage: --- --- --- --- 12Mon/Dis --- Mon=Month Dis=Discard  
 In : Sep 19, 1995 Shipper: Norm Smith Pulp Storage: --- --- --- --- 12Mon/Dis --- Rtn=Return Arc=Archive  
 PO#: 00871 Shipment: ID=C030900

Msg: ICP(AqR)30  
Msg:

Document Distribution

1 Northern Analytical Laboratories EN RT CC IN FX  
 105 Copper Road 1 2 2 2 1  
 Whitehorse DL 3D 5D BT BL  
 YT Y1A 2Z7 0 0 0 1 0

ATT: Norm Smith

Ph:403/668-4968  
Fx:403/668-4890

Analytical Summary

##	Code	Met Title	Limit	Limit	Units	Description	Element	##
		hod	Low	High				
01	721P	ICP Ag	0.1	100	ppm	Ag ICP	Silver	01
02	711P	ICP Cu	1	20000	ppm	Cu ICP	Copper	02
03	714P	ICP Pb	2	20000	ppm	Pb ICP	Lead	03
04	730P	ICP Zn	1	20000	ppm	Zn ICP	Zinc	04
05	703P	ICP As	5	9999	ppm	As ICP 5 ppm	Arsenic	05
06	702P	ICP Sb	5	9999	ppm	Sb ICP	Antimony	06
07	732P	ICP Hg	3	9999	ppm	Hg ICP	Mercury	07
08	717P	ICP Mo	1	9999	ppm	Mo ICP	Molydenum	08
09	747P	ICP Tl	10	999	ppm	Tl ICP 10 ppm (Incomplete	Thallium	09
10	705P	ICP Bi	2	999	ppm	Bi ICP	Bismuth	10
11	707P	ICP Cd	0.1	100	ppm	Cd ICP	Cadmium	11
12	710P	ICP Co	1	999	ppm	Co ICP	Cobalt	12
13	718P	ICP Ni	1	999	ppm	Ni ICP	Nickel	13
14	704P	ICP Ba	2	9999	ppm	Ba ICP (Incomplete Digest	Barium	14
15	727P	ICP W	5	999	ppm	W ICP (Incomplete Digest	Tungsten	15
16	709P	ICP Cr	1	9999	ppm	Cr ICP (Incomplete Digest	Chromium	16
17	729P	ICP V	2	999	ppm	V ICP	Vanadium	17
18	716P	ICP Mn	1	9999	ppm	Mn ICP	Manganese	18
19	713P	ICP La	2	9999	ppm	La ICP (Incomplete Digest	Lanthanum	19
20	723P	ICP Sr	1	9999	ppm	Sr ICP (Incomplete Digest	Strontium	20
21	731P	ICP Zr	1	999	ppm	Zr ICP	Zirconium	21
22	736P	ICP Sc	1	99	ppm	Sc ICP	Scandium	22
23	726P	ICP Ti	0.01	1.00	%	Ti ICP (Incomplete Digest	Titanium	23
24	701P	ICP Al	0.01	9.99	%	Al ICP (Incomplete Digest	Aluminum	24
25	708P	ICP Ca	0.01	9.99	%	Ca ICP (Incomplete Digest	Calcium	25
26	712P	ICP Fe	0.01	9.99	%	Fe ICP	Iron	26
27	715P	ICP Mg	0.01	9.99	%	Mg ICP (Incomplete Digest	Magnesium	27
28	720P	ICP K	0.01	9.99	%	K ICP (Incomplete Digest	Potassium	28
29	722P	ICP Na	0.01	5.00	%	Na ICP (Incomplete Digest	Sodium	29
30	719P	ICP P	0.01	5.00	%	P ICP	Phosphorus	30



INTERNATIONAL PLASMA LABORATORY LTD.

CERTIFICATE OF ANALYSIS

iPL 95I1902

2036 Columbia Street  
Vancouver, B.C.  
Canada V5Y 3E1  
Phone (604) 879-7878  
Fax (604) 879-7898

Client: Northern Analytical Laboratories  
Project: 15382 116 Pulp

iPL: 95I1902

Out: Sep 26, 1995  
In: Sep 19, 1995

Page 1 of 3  
[076014:27:56:59092695]

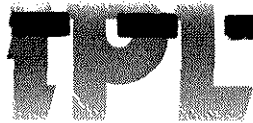
Section 1 of 1  
Certified BC Assayer: David Chiu

Sample Name	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %	
PM 59	<	10	8	40	7	<	<	3	<	<	<	4	8	32	<	5	9	1497	3	44	1	1	<	0.12	15%	1.90	9.55	0.01	0.02	0.04	
PM 60	<	9	6	27	7	5	<	4	<	<	<	5	8	60	<	5	5	2100	3	35	1	1	<	0.11	15%	1.87	10%	0.02	0.02	0.02	
PM 61	<	1	5	30	<	<	3	4	<	<	0.3	6	10	63	<	5	9	2752	2	46	2	1	<	0.10	15%	2.51	9.47	<	0.02	0.02	
PM 62	<	1	2	26	<	<	<	4	<	<	0.4	3	6	44	<	5	9	2527	3	34	1	1	<	0.10	15%	2.24	9.60	0.01	0.02	0.02	
PM 63	<	3	2	27	<	<	<	4	<	<	<	3	6	28	<	6	9	1761	5	20	1	1	<	0.14	14%	1.90	9.45	0.01	0.02	0.02	
PM 64	<	3	2	38	<	<	<	4	<	<	0.4	5	7	41	<	5	11	2412	5	29	1	1	<	0.14	14%	2.49	9.11	<	0.02	0.02	
PM 65	<	72	10	103	25	<	<	3	<	<	<	15	35	198	<	17	46	4930	7	29	4	3	0.01	1.34	6.71	6.71	5.52	0.03	0.02	0.08	
PM 66	<	20	19	143	42	<	<	4	<	<	<	19	53	313	<	30	75	4788	9	20	6	4	<	2.50	2.69	9.10	4.20	0.04	0.01	0.12	
PM 67	<	6	5	42	12	<	<	3	<	<	<	4	12	39	<	6	14	2506	3	32	2	1	<	0.17	12%	2.74	7.83	0.01	0.02	0.02	
PM 68	<	9	7	53	24	<	<	3	<	<	0.7	9	15	58	<	6	16	3490	<	108	2	1	<	0.14	15%	3.74	9.66	0.01	0.02	0.02	
PM 69	<	28	3	45	17	5	<	4	<	<	0.6	7	20	39	<	6	17	2888	3	63	2	1	<	0.23	12%	3.84	8.02	0.02	0.02	0.03	
PM 70	0.7	2	4	47	12	<	<	4	<	<	0.6	6	12	38	<	6	23	3067	<	85	1	1	<	0.17	16%	3.66	10%	0.01	0.02	0.02	
PM 71	<	3	6	45	19	<	<	4	<	<	0.6	6	12	47	<	5	14	3203	2	95	1	1	<	0.14	16%	3.42	10%	0.01	0.02	0.02	
PM 72	<	4	9	80	14	<	<	4	<	<	<	9	17	64	<	6	17	4435	2	71	2	1	<	0.22	14%	5.28	9.03	0.01	0.02	0.04	
PM 73	<	5	5	34	9	<	<	3	<	<	0.4	3	4	34	<	5	7	2886	3	31	1	<	<	0.12	15%	2.44	10%	0.01	0.02	0.03	
PM 74	<	8	2	31	7	<	<	4	<	<	0.3	3	5	32	<	5	6	2902	2	33	1	<	<	0.11	16%	2.17	11%	<	0.02	0.03	
PM 75	<	11	5	26	6	<	<	4	<	<	<	3	4	31	<	5	6	2372	2	39	1	<	<	0.10	17%	1.82	11%	10%	0.01	0.02	0.02
PM 76	<	9	<	30	6	<	3	<	<	<	0.3	4	9	37	<	6	6	2591	5	33	1	1	<	0.17	14%	2.19	9.29	0.02	0.02	0.03	
PM 77	<	8	6	53	14	<	<	3	<	<	0.5	8	18	59	<	9	12	2006	13	23	2	2	<	0.63	8.59	3.24	6.07	0.04	0.01	0.05	
PM 78	0.4	27	14	91	24	5	<	2	<	<	<	16	34	136	<	14	20	2072	30	7	4	5	<	1.22	1.01	5.13	1.68	0.09	0.01	0.10	
PM 79	0.2	14	11	83	30	<	<	2	<	<	<	17	37	153	<	12	19	2523	27	13	3	4	<	0.89	1.85	5.49	1.84	0.10	0.01	0.09	
PM 80	0.2	11	6	69	17	<	<	2	<	<	<	16	36	209	<	8	15	2350	21	22	3	3	<	0.50	4.21	4.54	2.67	0.09	0.01	0.09	
PM 81	<	17	23	67	37	5	<	3	<	<	<	16	24	312	<	6	15	3891	10	51	2	2	<	0.31	9.55	4.98	5.94	0.05	0.02	0.05	
PM 82	<	5	6	37	39	<	<	4	<	<	0.6	5	13	49	<	6	20	3035	<	103	1	1	<	0.08	17%	3.20	11%	10%	0.01	0.02	0.02
PM 83	<	2	3	31	18	<	<	3	<	<	0.5	5	9	28	<	6	24	2639	<	84	1	1	<	0.09	17%	3.02	11%	10%	0.01	0.02	0.02
PM 84	<	3	3	33	13	<	<	5	<	<	0.5	4	8	33	<	5	26	2786	<	96	1	<	<	0.08	17%	2.74	11%	10%	0.01	0.02	0.01
PM 85	1.5	107	8	44	33	52	4	2	<	<	0.5	5	11	51	<	5	23	2731	<	100	1	<	<	0.07	18%	2.80	11%	<	0.02	0.01	
PM 86	0.5	30	10	48	48	13	<	3	<	2	0.5	4	7	41	<	5	15	2644	2	63	2	<	<	0.12	15%	2.65	9.99	0.02	0.02	0.02	
PM 87	9.3	228	65	312	79	122	4	4	<	7	1.3	10	20	25	<	11	19	2805	4	55	5	2	<	0.15	10%	2.88	5.99	0.03	0.02	0.04	
PM 88	0.2	50	309	361	46	13	<	3	<	<	1.7	14	24	43	<	10	16	1594	7	50	5	2	<	0.23	7.23	2.12	4.09	0.05	0.02	0.05	
PM 89	<	9	19	46	20	<	<	3	<	<	0.5	13	15	61	<	4	10	2076	13	47	8	4	<	0.26	9.81	2.46	6.07	0.09	0.02	0.07	
PM 90	<	16	19	39	24	<	<	3	<	<	0.4	13	19	65	<	4	9	1834	12	43	4	3	<	0.25	8.46	2.31	5.19	0.08	0.02	0.07	
PM 91	<	221	37	78	44	77	<	3	<	<	<	14	16	112	<	6	11	2397	6	45	3	2	<	0.19	13%	2.72	7.99	0.04	0.02	0.04	
PM 92	<	29	22	46	16	9	<	3	<	<	<	12	14	76	<	5	9	1523	9	42	3	1	<	0.21	11%	1.85	7.32	0.05	0.02	0.04	
PM 93	<	22	18	49	15	8	<	3	<	<	<	15	16	95	<	5	9	1508	11	37	3	1	<	0.21	9.77	1.77	6.23	0.06	0.02	0.05	
PM 94	<	17	10	37	8	<	<	3	<	<	<	5	7	81	<	5	7	1422	4	34	2	1	<	0.10	16%	1.41	10%	10%	0.02	0.02	0.03
PM 95	<	10	7	29	5	5	<	4	<	<	<	3	6	60	<	5	6	1266	5	31	1	1	<	0.10	16%	1.38	10%	10%	0.02	0.02	0.02
PM 96	<	3	3	24	5	<	<	5	<	<	<	3	5	53	<	6	7	1630	3	25	2	1	<	0.11	17%	1.54	11%	10%	0.01	0.02	0.01
PM 97	<	35	36	74	25	<	<	3	<	<	<	8	16	64	<	4	6	1229	7	29	4	1	<	0.17	11%	1.78	6.28	0.04	0.02	0.03	

Min Limit 0.1 1 2 1 5 5 3 1 10 2 0.1 1 1 2 5 1 2 1 2 1 1 1 1 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 5.00 5.00  
 Max Reported\* 99.9 20000 20000 20000 9999 9999 9999 9999 999 999 999 999 999 999 999 999 999 999 999 9999 9999 999 99 1.00 9.99 9.99 9.99 9.99 9.99 9.99 5.00 5.00  
 Method ICP  
 ---No Test ins=Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pulp U=Undefined m=Estimate/1000 %=Estimate % Max=No Estimate  
 International Plasma Lab Ltd. 2036 Columbia St. Vancouver BC V5Y 3E1 Ph:604/879-7878 Fax:604/879-7898







INTERNATIONAL PLASMA LABORATORY LTD.

CERTIFICATE OF ANALYSIS

iPL 95I1901

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

Northern Analytical Laboratories 58 Samples

Out: Sep 26, 1995 Project: 15370  
In : Sep 19, 1995 Shipper: Norm Smith  
PO#: 00871 Shipment: ID=C030900  
Msg: ICP(AqR)30

0= Rock 0= Soil 0= Core 0=RC Ct 58= Pulp 0=Other  
Raw Storage: -- -- -- -- 12Mon/Dis --  
Pulp Storage: -- -- -- -- 12Mon/Dis --

[075914:25:27:59092695]  
Mon=Month Dis=Discard  
Rtn=Return Arc=Archive

Document Distribution

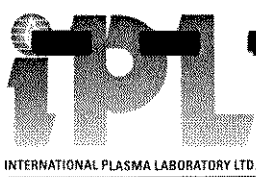
1 Northern Analytical Laboratories EN RT CC IN FX  
105 Copper Road 1 2 2 2 1  
Whitehorse DL 3D 5D BT BL  
YT Y1A 2Z7 0 0 0 1 0  
ATT: Norm Smith Ph:403/668-4968  
Fx:403/668-4890

Analytical Summary

##	Code	Met Title	Limit	Limit	Units	Description	Element	##
			Low	High				
01	721P	ICP Ag	0.1	100	ppm	Ag ICP	Silver	01
02	711P	ICP Cu	1	20000	ppm	Cu ICP	Copper	02
03	714P	ICP Pb	2	20000	ppm	Pb ICP	Lead	03
04	730P	ICP Zn	1	20000	ppm	Zn ICP	Zinc	04
05	703P	ICP As	5	9999	ppm	As ICP 5 ppm	Arsenic	05
06	702P	ICP Sb	5	9999	ppm	Sb ICP	Antimony	06
07	732P	ICP Hg	3	9999	ppm	Hg ICP	Mercury	07
08	717P	ICP Mo	1	9999	ppm	Mo ICP	Molybdenum	08
09	747P	ICP Tl	10	999	ppm	Tl ICP 10 ppm (Incomplete	Thallium	09
10	705P	ICP Bi	2	999	ppm	Bi ICP	Bismuth	10
11	707P	ICP Cd	0.1	100	ppm	Cd ICP	Cadmium	11
12	710P	ICP Co	1	999	ppm	Co ICP	Cobalt	12
13	718P	ICP Ni	1	999	ppm	Ni ICP	Nickel	13
14	704P	ICP Ba	2	9999	ppm	Ba ICP (Incomplete Digest	Barium	14
15	727P	ICP W	5	999	ppm	W ICP (Incomplete Digest	Tungsten	15
16	709P	ICP Cr	1	9999	ppm	Cr ICP (Incomplete Digest	Chromium	16
17	729P	ICP V	2	999	ppm	V ICP	Vanadium	17
18	716P	ICP Mn	1	9999	ppm	Mn ICP	Manganese	18
19	713P	ICP La	2	9999	ppm	La ICP (Incomplete Digest	Lanthanum	19
20	723P	ICP Sr	1	9999	ppm	Sr ICP (Incomplete Digest	Strontium	20
21	731P	ICP Zr	1	999	ppm	Zr ICP	Zirconium	21
22	736P	ICP Sc	1	99	ppm	Sc ICP	Scandium	22
23	726P	ICP Ti	0.01	1.00	%	Ti ICP (Incomplete Digest	Titanium	23
24	701P	ICP Al	0.01	9.99	%	Al ICP (Incomplete Digest	Aluminum	24
25	708P	ICP Ca	0.01	9.99	%	Ca ICP (Incomplete Digest	Calcium	25
26	712P	ICP Fe	0.01	9.99	%	Fe ICP	Iron	26
27	715P	ICP Mg	0.01	9.99	%	Mg ICP (Incomplete Digest	Magnesium	27
28	720P	ICP K	0.01	9.99	%	K ICP (Incomplete Digest	Potassium	28
29	722P	ICP Na	0.01	5.00	%	Na ICP (Incomplete Digest	Sodium	29
30	719P	ICP P	0.01	5.00	%	P ICP	Phosphorus	30

EN=Envelope # RT=Report Style CC=Copies IN=Invoices FX=Fax(1=Yes 0=No)  
DL=Download 3D=3-1/2 Disk 5D=5-1/4 Disk BT=BBS Type BL=BBS(1=Yes 0=No)

Totals: 2=Copy 2=Invoice 0=3-1/2 Disk 0=5-1/4 Disk



**CERTIFICATE OF ANALYSIS**  
iPL 95I1901

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

INTERNATIONAL PLASMA LABORATORY LTD.

Client: Northern Analytical Laboratories      iPL: 95I1901      Out: Sep 26, 1995      Page 1 of 2      Section 1 of 1  
Project: 15370      58 Pulp      In: Sep 19, 1995      [075914:25:32:59092695]      Certified BC Assayer: David Chiu

Sample Name	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
PM 1	<	10	24	32	23	<	<	3	<	<	<	6	13	47	<	5	9	1716	4	40	3	1	<	0.12	13%	1.94	8.19	0.02	0.02	0.04
PM 2	0.4	45	15	58	25	9	<	4	<	<	<	9	19	99	<	8	14	2190	3	75	5	2	<	0.29	12%	2.54	7.61	0.04	0.02	0.04
PM 3	<	20	15	53	20	6	<	2	<	<	1.0	11	34	52	<	20	18	1316	10	75	8	2	<	0.24	7.49	2.11	4.56	0.05	0.02	0.04
PM 4	<	4	11	47	14	<	<	2	<	<	0.3	8	16	30	<	8	11	1309	6	54	7	2	<	0.19	6.92	1.46	3.86	0.05	0.01	0.03
PM 5	0.2	18	18	36	34	<	<	2	<	<	0.3	8	19	22	<	6	8	950	12	31	9	2	<	0.21	5.14	1.31	2.87	0.08	0.01	0.09
PM 6	<	33	18	51	28	10	<	4	<	<	<	7	12	13	<	6	8	2056	4	48	4	1	<	0.13	13%	2.08	7.85	0.04	0.02	0.03
PM 7	1.2	33	40	112	56	14	<	5	<	<	0.5	7	13	12	<	6	7	2666	<	52	2	1	<	0.08	14%	2.44	9.10	0.01	0.02	0.01
PM 8	<	20	16	52	19	<	<	2	<	<	<	8	19	60	<	8	15	1769	3	71	6	1	<	0.18	12%	2.48	7.24	0.03	0.02	0.04
PM 9	<	33	14	49	18	9	<	3	<	<	0.2	6	12	36	<	8	13	1357	3	60	7	2	<	0.17	11%	1.73	6.69	0.03	0.02	0.04
PM 10	<	33	13	34	31	6	<	3	<	<	0.3	9	14	20	<	8	11	1118	6	44	8	2	<	0.20	6.69	1.61	4.00	0.06	0.02	0.06
PM 11	1.6	46	25	74	41	16	<	3	<	<	0.4	12	21	18	<	7	12	1558	7	38	7	2	<	0.21	5.57	1.80	3.30	0.06	0.01	0.06
PM 12	1.0	94	15	97	192	25	<	4	<	<	<	45	272	41	<	64	60	2072	4	33	4	3	<	0.37	8.21	4.60	5.61	0.02	0.01	0.07
PM 13	1.4	33	18	42	43	18	<	4	<	<	<	7	26	11	<	9	12	1983	2	39	3	1	<	0.08	11%	2.02	7.02	0.01	0.02	0.02
PM 14	<	72	15	37	40	7	<	7	<	<	<	54	154	265	<	383	158	1209	10	13	4	20	0.02	3.26	2.24	6.16	6.09	0.05	0.01	0.05
PM 15	0.7	82	39	131	78	16	<	5	<	<	0.2	38	180	24	<	64	50	2473	4	39	5	3	<	0.33	9.87	5.12	6.26	0.03	0.01	0.07
PM 16	2.9	155	43	308	198	75	<	7	<	<	<	28	206	27	<	33	22	1433	15	30	11	2	<	0.17	2.33	4.03	3.44	0.04	0.01	0.10
PM 17	<	37	10	149	27	14	<	5	<	<	<	4	9	41	<	5	4	1318	2	46	2	<	<	0.09	16%	1.20	11%	0.01	0.02	0.01
PM 18	<	19	9	29	17	9	<	6	<	<	<	6	13	25	<	14	12	2140	<	59	1	1	<	0.15	18%	1.89	12%	0.01	0.02	0.01
PM 19	<	22	69	50	49	7	<	5	<	<	0.5	11	17	17	<	4	8	2818	<	106	3	<	<	0.08	17%	2.63	11%	<	0.02	0.01
PM 20	1.3	45	33	86	131	17	<	4	<	<	0.9	19	77	15	<	11	15	2202	3	40	4	2	<	0.11	11%	2.66	6.89	0.02	0.02	0.04
PM 21	0.1	36	6	22	22	9	<	4	<	<	<	18	38	158	<	50	50	1219	17	37	5	5	0.02	0.55	4.02	4.11	2.86	0.09	0.01	0.06
PM 22	<	10	8	35	16	<	<	5	<	<	<	30	50	152	<	25	51	974	13	22	6	3	0.02	0.38	4.27	4.87	3.23	0.07	0.01	0.06
PM 23	3.8	115	194	116	895	69	<	6	<	<	0.3	335	434	22	<	23	22	2272	<	46	4	1	<	0.09	13%	5.82	8.47	0.02	0.02	0.03
PM 24	1.3	22	23	38	67	16	<	4	<	<	0.6	21	41	17	<	9	11	2528	<	54	4	1	<	0.07	13%	2.54	8.39	0.01	0.02	0.01
PM 25	1.4	24	13	32	46	14	<	4	<	<	<	12	34	14	<	7	9	1748	2	40	4	1	<	0.07	11%	1.81	6.98	0.01	0.02	0.02
PM 26	1.1	27	17	29	54	16	<	3	<	<	0.4	11	29	11	<	6	11	2135	2	32	4	2	<	0.07	8.45	2.15	5.20	0.01	0.02	0.02
PM 27	1.0	34	19	47	59	12	<	5	<	<	0.3	13	33	23	<	9	9	1855	2	71	3	1	<	0.13	14%	2.07	8.56	0.02	0.02	0.02
PM 28	<	15	12	35	26	7	3	3	<	<	<	5	9	26	<	5	10	2298	2	63	3	1	<	0.10	13%	1.90	8.32	0.01	0.02	0.02
PM 29	<	10	13	66	12	<	<	3	<	<	<	8	13	35	<	5	10	1050	7	49	2	2	<	0.19	9.11	1.85	5.68	0.03	0.02	0.03
PM 30	<	9	14	75	14	<	<	3	<	<	0.7	10	14	46	<	6	13	1178	8	30	2	2	<	0.31	6.20	2.19	3.82	0.06	0.02	0.05
PM 31	0.1	14	29	127	23	<	<	2	<	<	0.4	10	17	54	<	7	13	1364	6	53	2	2	<	0.29	7.03	1.99	4.42	0.04	0.02	0.04
PM 32	0.6	15	289	887	37	5	<	4	<	<	3.7	11	18	37	<	6	14	1855	3	70	3	2	<	0.19	10%	3.24	6.35	0.03	0.02	0.03
PM 33	1.3	60	19	79	34	11	<	4	<	<	0.8	9	20	117	<	7	25	3251	2	92	2	1	<	0.20	14%	3.76	9.14	0.01	0.02	0.02
PM 34	0.2	33	14	73	32	<	<	3	<	<	0.7	10	23	143	<	8	22	3139	<	84	2	1	<	0.20	15%	3.82	9.38	0.02	0.02	0.03
PM 35	<	10	7	59	28	<	<	3	<	<	<	12	23	115	<	11	20	2699	5	67	2	1	<	0.59	12%	4.12	8.35	0.02	0.02	0.05
PM 36	<	12	13	47	56	<	<	3	<	<	<	13	25	156	<	6	19	3261	5	72	2	1	<	0.25	11%	4.30	7.22	0.03	0.02	0.04
PM 37	<	14	28	113	25	<	<	3	<	<	0.2	8	17	37	<	6	10	1136	5	63	3	2	<	0.16	10%	1.83	6.43	0.03	0.02	0.03
PM 38	<	10	29	151	28	<	<	3	<	<	0.3	8	17	36	<	6	9	1202	4	67	3	2	<	0.16	10%	1.87	6.58	0.02	0.02	0.03
PM 39	<	9	50	242	28	<	<	4	<	<	1.1	8	17	36	<	7	12	1861	2	70	1	2	<	0.17	13%	2.78	8.15	0.01	0.02	0.02

Min Limit      0.1      1      2      1      5      5      3      1      10      2      0.1      1      1      2      5      1      2      1      2      1      1      1      1      0.01      0.01      0.01      0.01      0.01      0.01      0.01      0.01

Max Reported\*      99.9      20000      20000      20000      9999      9999      9999      9999      999      999      99.9      999      999      9999      999      9999      999      9999      999      9999      999      999      999      1.00      9.99      9.99      9.99      9.99      9.99      5.00      5.00

Method      ICP

---No Test    ins=Insufficient Sample    S=Soil    R=Rock    C=Core    L=Silt    P=Pulp    U=Undefined    m=Estimate/1000    %=Estimate %    Max=No Estimate

International Plasma Lab Ltd.    2036 Columbia St.    Vancouver BC    V5Y 3E1    Ph:604/879-7878    Fax:604/879-7898



**CERTIFICATE OF ANALYSIS**  
iPL 95I1901

2036 Columbia Street  
Vancouver, B.C.  
Canada V5Y 3E1  
Phone (604) 879-7878  
Fax (604) 879-7898

Client: Northern Analytical Laboratories  
Project: 15370 58 Pulp

iPL: 95I1901

Out: Sep 26, 1995  
In: Sep 19, 1995

Page 2 of 2  
[075914:25:45:59092695]

Section 1 of 1  
Certified BC Assayer: David Chiu

Sample Name	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Hg ppm	Mo ppm	Tl ppm	Bi ppm	Cd ppm	Co ppm	Ni ppm	Ba ppm	W ppm	Cr ppm	V ppm	Mn ppm	La ppm	Sr ppm	Zr ppm	Sc ppm	Ti %	Al %	Ca %	Fe %	Mg %	K %	Na %	P %
PM 40	P 0.8	16	46	175	40	7	<	4	<	<	1.0	11	20	37	<	8	15	2365	2	80	2	1	<	0.21	13%	3.65	8.53	0.02	0.02	0.02
PM 41	P 0.2	21	20	80	25	<	<	4	<	<	0.7	7	19	72	<	7	16	2896	2	68	2	1	<	0.18	15%	3.27	9.78	<	0.02	0.02
PM 42	P 0.6	33	23	100	33	8	<	4	<	<	0.9	9	19	96	<	9	32	2801	2	101	2	1	<	0.32	14%	3.99	9.15	0.01	0.02	0.04
PM 43	P <	19	15	66	60	<	<	4	<	<	0.8	19	47	72	<	9	24	1685	3	74	5	2	<	0.37	8.89	3.83	5.74	0.04	0.02	0.06
PM 44	P <	15	17	57	86	5	<	5	<	<	<	27	53	53	<	13	29	1458	4	72	6	2	<	0.63	9.15	4.28	6.16	0.06	0.02	0.07
PM 45	P <	17	12	64	53	<	<	3	<	<	<	12	24	112	<	9	23	2623	7	49	2	1	<	0.51	8.41	4.16	5.55	0.04	0.02	0.07
PM 46	P 0.1	13	6	57	19	<	<	3	<	<	0.5	11	21	86	<	9	18	1495	14	24	2	2	0.01	0.62	4.17	3.07	2.90	0.06	0.02	0.07
PM 47	P 1.1	18	63	225	45	<	<	4	<	<	0.6	13	20	44	<	7	13	2751	<	92	2	1	<	0.15	15%	4.07	9.56	0.01	0.02	0.02
PM 48	P <	21	19	77	23	<	<	4	<	<	0.7	7	15	59	<	7	15	2735	2	70	1	1	<	0.16	15%	2.85	9.75	0.01	0.02	0.02
PM 49	P 1.1	70	43	111	52	13	<	4	<	<	0.3	10	31	142	<	9	35	3508	2	87	3	2	<	0.28	13%	4.02	8.06	0.02	0.02	0.04
PM 50	P 1.4	76	28	87	32	20	<	4	<	<	0.8	8	14	142	<	5	23	4261	<	110	1	<	<	0.16	17%	3.57	11%	<	0.02	0.01
PM 51	P <	14	5	42	12	<	<	4	<	<	0.5	5	11	57	<	7	25	2317	2	76	2	1	<	0.17	15%	3.09	9.74	0.01	0.02	0.03
PM 52	P <	8	4	41	11	<	4	3	<	<	0.5	6	12	54	<	6	12	1732	3	51	2	1	<	0.19	14%	2.45	9.20	0.01	0.02	0.04
PM 53	P <	19	17	101	45	<	<	2	<	<	<	16	37	174	<	14	26	2729	24	9	4	3	0.01	1.00	0.77	5.70	1.20	0.07	0.01	0.09
PM 54	P <	9	5	38	12	<	<	3	<	<	0.3	9	14	59	<	7	11	1485	14	24	2	1	<	0.44	7.58	2.38	5.07	0.05	0.02	0.06
PM 55	P <	5	18	38	<	<	<	4	<	<	0.4	3	4	73	<	4	5	3111	<	32	1	<	<	0.08	16%	2.22	11%	<	0.02	0.04
PM 56	P <	16	12	54	19	<	<	3	<	<	0.9	6	16	79	<	6	29	2711	<	103	1	1	<	0.18	16%	3.49	9.93	0.01	0.03	0.02
PM 57	P 1.6	80	51	102	97	12	<	5	<	<	<	17	41	111	<	9	45	3973	2	83	3	2	<	0.26	12%	4.76	7.77	0.03	0.02	0.05
PM 58	P 0.3	24	19	91	29	5	<	4	<	<	0.1	9	20	103	<	7	28	3246	2	113	2	1	<	0.20	15%	4.03	9.92	0.02	0.02	0.03

Min Limit 0.1 1 2 1 5 5 3 1 10 2 0.1 1 1 2 5 1 2 1 2 1 1 1 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01  
 Max Reported\* 99.9 20000 20000 20000 9999 9999 9999 9999 999 999 99.9 999 999 9999 999 9999 999 9999 9999 9999 9999 999 99 1.00 9.99 9.99 9.99 9.99 9.99 5.00 5.00  
 Method ICP  
 ---No Test ins=Insufficient Sample S=Soil R=Rock C=Core L=Silt P=Pulp U=Undefined m=Estimate/1000 %=Estimate % Max=No Estimate  
 International Plasma Lab Ltd. 2036 Columbia St. Vancouver BC V5Y 3E1 Ph:604/879-7878 Fax:604/879-7898

08/10/95

Assay Certificate

Page 1

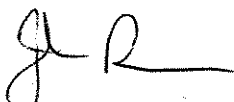
Montoro Resources

WO#15370

re: John Hajek

Sample #	(-80) Au ppb	(-80) Ag ppm	(+80) Au oz/ton	(+80) Ag oz/ton
PM 1	<5	<0.1	0.001	<0.10
PM 2	12	0.8	<0.001	<0.10
PM 3	15	<0.1	<0.001	<0.10
PM 4	<5	<0.1	<0.001	<0.10
PM 5	7	0.2	<0.001	0.13
PM 6	12	0.7	<0.001	<0.10
PM 7	26	1.2	<0.001	<0.10
PM 8	8	0.1	0.005	0.13
PM 9	<5	0.4	0.001	<0.10
PM 10	<5	0.3	0.002	<0.10
PM 11	14	1.8	<0.001	<0.10
PM 12	69	1.0	0.001	<0.10
PM 13	13	1.7	0.001	<0.10
PM 14	12	0.1	0.001	0.10
PM 15	43	0.9	0.001	<0.10
PM 16	36	2.8	0.001	0.11
PM 17	<5	<0.1	<0.001	<0.10
PM 18	11	<0.1	<0.001	0.10
PM 19	164	0.4	0.003	<0.10
PM 20	66	1.3	0.001	<0.10
PM 21	10	0.1	0.001	0.10
PM 22	14	0.1	0.001	<0.10
PM 23	78	4.5	0.005	<0.10
PM 24	14	1.2	0.010	<0.10
PM 25	13	1.6	<0.001	0.13
PM 26	47	1.4	0.001	<0.10
PM 27	61	1.0	0.001	0.12
PM 28	32	0.2	0.001	<0.10
PM 29	<5	<0.1	0.001	<0.10
PM 30	<5	<0.1	<0.001	<0.10
PM 31	<5	0.2	<0.001	<0.10
PM 32	<5	1.1	<0.001	<0.10
PM 33	<5	1.5	<0.001	<0.10
PM 34	<5	0.4	<0.001	<0.10

Certified by




06/10/95

Assay Certificate

Page 2

Montoro Resources

WO#15370

re: John Hajek

Sample #	(-80) Au ppb	(-80) Ag ppm	(+80) Au oz/ton	(+80) Ag oz/ton
PM 35	5	<0.1	<0.001	<0.10
PM 36	27	0.3	0.001	<0.10
PM 37	<5	0.1	<0.001	<0.10
PM 38	<5	0.1	<0.001	<0.10
PM 39	<5	0.5	<0.001	<0.10
PM 40	<5	0.7	<0.001	<0.10
PM 41	<5	0.4	0.001	0.10
PM 42	<5	0.5	0.001	<0.10
PM 43	<5	0.1	0.001	0.12
PM 44	<5	0.3	<0.001	<0.10
PM 45	38	0.1	0.002	<0.10
PM 46	<5	<0.1	0.001	<0.10
PM 47	<5	1.0	0.001	<0.10
PM 48	<5	0.4	<0.001	<0.10
PM 49	9	1.1	0.001	<0.10
PM 50	6	1.3	<0.001	<0.10
PM 51	<5	<0.1	<0.001	0.11
PM 52	<5	0.1	<0.001	0.10
PM 53	22	0.1	0.001	<0.10
PM 54	<5	<0.1	<0.001	<0.10
PM 55	<5	<0.1	<0.001	<0.10
PM 56	<5	0.2	<0.001	<0.10
PM 57	60	1.7	0.001	0.13
PM 58	5	0.4	<0.001	0.10

Note: Analyses were done on the -80 mesh fraction of the soil samples and on the pulverized +80 mesh fraction (oversize), as indicated in the headings. The accompanying multi-element ICP analyses were done on the -80 mesh fraction.

Certified by




16/10/95

Assay Certificate

Page 1

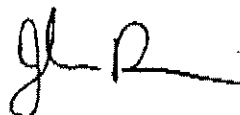
Montoro Resources

WO#15382

re: Zelon Chemicals

Sample #	(-80) Au ppb	(-80) Ag ppm	(+80) Au oz/ton	(+80) Ag oz/ton
PM 59	<5	<0.1	0.001	<0.10
PM 60	<5	<0.1	0.001	<0.10
PM 61	9	<0.1	0.001	<0.10
PM 62	<5	<0.1	0.002	<0.10
PM 63	<5	<0.1	0.001	<0.10
PM 64	<5	<0.1	0.001	<0.10
PM 65	<5	<0.1	0.003	<0.10
PM 66	5	<0.1	<0.001	<0.10
PM 67	8	<0.1	0.001	<0.10
PM 68	11	<0.1	<0.001	<0.10
PM 69	5	0.4	<0.001	<0.10
PM 70	7	<0.1	<0.001	<0.10
PM 71	5	<0.1	<0.001	<0.10
PM 72	<5	<0.1	0.001	<0.10
PM 73	<5	<0.1	<0.001	<0.10
PM 74	<5	<0.1	<0.001	<0.10
PM 75	<5	<0.1	<0.001	<0.10
PM 76	<5	<0.1	<0.001	<0.10
PM 77	<5	<0.1	<0.001	<0.10
PM 78	<5	0.1	<0.001	<0.10
PM 79	9	<0.1	<0.001	<0.10
PM 80	6	<0.1	<0.001	<0.10
PM 81	38	0.2	0.001	<0.10
PM 82	35	<0.1	0.002	<0.10
PM 83	13	<0.1	0.001	<0.10
PM 84	10	<0.1	0.001	<0.10
PM 85	28	1.1	0.001	<0.10
PM 86	24	0.8	0.001	<0.10
PM 87	64	6.9	0.001	<0.10
PM 88	48	0.6	<0.001	<0.10
PM 89	<5	<0.1	<0.001	<0.10
PM 90	5	<0.1	<0.001	<0.10
PM 91	<5	0.7	<0.001	<0.10
PM 92	8	<0.1	<0.001	<0.10

Certified by




16/10/95

Assay Certificate

Page 2


Montoro Resources

WO#15382

re: Zelon Chemicals

Sample #	(-80) Au ppb	(-80) Ag ppm	(+80) Au oz/ton	(+80) Ag oz/ton
PM 93	<5	<0.1	<0.001	<0.10
PM 94	<5	<0.1	<0.001	<0.10
PM 95	<5	<0.1	<0.001	<0.10
PM 96	<5	<0.1	0.001	<0.10
PM 97	7	<0.1	<0.001	<0.10
PM 98	<5	<0.1	<0.001	<0.10
PM 99	<5	<0.1	<0.001	<0.10
PM 100	<5	<0.1	<0.001	<0.10
PM 101	<5	<0.1	<0.001	<0.10
PM 102	13	<0.1	0.001	<0.10
PM 103	7	<0.1	<0.001	<0.10
PM 104	9	<0.1	<0.001	<0.10
PM 105	7	<0.1	<0.001	<0.10
PM 106	<5	<0.1	<0.001	<0.10
PM 107	<5	<0.1	<0.001	<0.10
PM 108	<5	<0.1	<0.001	<0.10
PM 109	5	<0.1	<0.001	<0.10
PM 110	5	0.1	<0.001	<0.10
PM 111	10	<0.1	<0.001	<0.10
PM 112	317	1.1	0.010	<0.10
PM 113	1270	5.4	0.036	0.10
PM 114	246	0.3	0.009	<0.10
PM 115	90	0.1	0.004	<0.10
PM 116	37	0.2	0.001	<0.10
PM 117	15	1.7	<0.001	<0.10
PM 118	12	0.3	0.001	<0.10
PM 119	29	0.7	0.001	<0.10
PM 120	9	0.1	<0.001	<0.10
PM 121	54	0.7	0.006	<0.10
PM 122	8	<0.1	<0.001	<0.10
PM 123	31	<0.1	<0.001	<0.10
PM 124	<5	<0.1	<0.001	<0.10
PM 125	<5	<0.1	<0.001	<0.10
PM 126	12	<0.1	<0.001	<0.10

Certified by




7/10/95

Assay Certificate

Page 3

Montoro Resources

WO#15382

re: Zelon Chemicals

Sample #	(-80) Au ppb	(-80) Ag ppm	(+80) Au oz/ton	(+80) Ag oz/ton
PM 127	11	0.1	0.001	<0.10
PM 128	15	<0.1	0.001	<0.10
PM 129	14	0.3	<0.001	<0.10
PM 130	18	0.4	0.001	<0.10
PM 131	18	<0.1	<0.001	<0.10
PM 132	23	3.8	0.001	0.13
PM 133	9	0.4	<0.001	<0.10
PM 134	73	1.0	<0.001	<0.10
PM 135	6	<0.1	0.001	<0.10
PM 136	<5	<0.1	0.001	<0.10
PM 137	16	<0.1	<0.001	<0.10
PM 138	<5	<0.1	<0.001	<0.10
PM 139	6	<0.1	<0.001	<0.10
PM 140	6	<0.1	<0.001	<0.10
PM 141	5	<0.1	<0.001	<0.10
PM 142	6	<0.1	<0.001	<0.10
PM 143	<5	<0.1	0.001	<0.10
PM 144	5	0.1	<0.001	<0.10
PM 145	7	1.0	0.001	<0.10
PM 146	6	0.1	<0.001	<0.10
PM 147	<5	<0.1	<0.001	<0.10
PM 148	<5	<0.1	<0.001	<0.10
PM 149	6	<0.1	<0.001	<0.10
PM 150	8	0.8	<0.001	<0.10
PM 151	6	0.7	<0.001	<0.10
PM 152	<5	2.1	<0.001	<0.10
PM 153	7	2.2	0.001	<0.10
PM 154	17	1.5	0.001	<0.10
PM 155	23	<0.1	0.001	<0.10
PM 156	12	0.6	<0.001	<0.10
PM 157	12	1.4	<0.001	<0.10
PM 158	6	0.9	<0.001	<0.10
PM 159	5	3.9	<0.001	<0.10
PM 160	<5	0.1	<0.001	<0.10

Certified by




16/10/95

Assay Certificate

Page 4

Montoro Resources

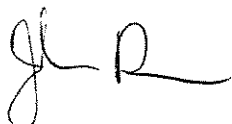
WO#15382

re: Zelon Chemicals

Sample #	(-80) Au ppb	(-80) Ag ppm	(+80) Au oz/ton	(+80) Ag oz/ton
PM 161	<5	0.3	<0.001	<0.10
PM 162	<5	0.2	<0.001	<0.10
PM 163	<5	1.5	<0.001	<0.10
PM 164	<5	0.1	<0.001	<0.10
PM 165	<5	0.2	<0.001	<0.10
PM 166	21	<0.1	0.001	<0.10
PM 167	<5	<0.1	<0.001	<0.10
PM 168	6	0.2	<0.001	<0.10
PM 169	358	7.6	0.013	0.29
PM 170	8	1.1	0.001	<0.10
PM 171	<5	<0.1	<0.001	<0.10
PM 172	342	2.2	0.025	<0.10
PM 173	474	0.7	0.006	<0.10
PM 174	<5	<0.1	<0.001	<0.10

Note: Analyses were done on the -80 mesh fraction of the soil samples and on the pulverized +80 mesh fraction (oversize), as indicated in the headings. The accompanying multi-element ICP analyses were done on the -80 mesh fraction.

Certified by




**APPENDIX C**

**IOTA-RUBY CLAIMS**

PETROGRAPHIC REPORT:

IOTA, LOCALE I TRENCH 1.

Microscopic examination  
Description



PETROGRAPHIC REPORT

Examiner P.G. Lhotka

Date May 23, 1983

Section: no. TSl  
location Trench I-1T.S.  P.T.S.  P.S. Specimen: no.  
description, field name

location

## Microscopic examination

A. Minerals	%	Optical properties	Mode of occurrence, distribution
<u>REFLECTED LIGHT</u>			
Stibnite	50	grey-white colour with strong anisotropism	Large irregularly-shaped grains which replace quartz along fractures. Contains corroded quartz crystals. Appears to be later than sphalerite where the two minerals are in contact.
Sphalerite	5	grey colour; strong cleavage	Contains inclusions of quartz and is highly fractured. Veined by quartz. Highly corroded and appears to be one of the earlier minerals deposited.
Covellite	2	deep blue colour; strong anisotropism	Occurs in quartz veinlets which cut stibnite and earlier quartz.
Native Gold	Tr	bright yellow	Several grains exist the largest of which is 0.3 mm in diameter. Gold grains are in contact with stibnite and quartz and occur as inclusions in stibnite.
<u>TRANSMITTED LIGHT</u>			
Quartz	43	low relief; low birefringence	Irregularly-shaped grains with undulose extinction. Numerous very small inclusions make the grains dusty.
Carbonate	Tr	high birefringence	Fills fractures in quartz.

## B. Texture

## 1. Fabric

## 2. Grain, xtl size

Grain size is highly variable with stibnite grains up to 7 mm in length, whereas covellite is less than 0.1 mm in diameter.

## C. Paragenesis

## PARAGENETIC SEQUENCE TS1 TO TS3

Stibnite	—		<p>A paragenetic sequence has been worked out using observations from TS1, TS2 and TS3. The earliest minerals deposited are quartz, carbonate and Potassium-feldspar. These minerals occur as inclusions in the sulphides stibnite sphalerite and galena, which were deposited more or less contemporaneously. Some gold was deposited at or near the end of the sulphide deposition and was followed by another deposition of quartz. A period of deformation, recognized by undulose extinction in quartz and bent cleavages in galena, then occurred. Deposition of quartz, carbonate and covellite with gold in small veinlets occurred after deformation. Most of the gold deposited in this event. Pyrite was the last sulphide deposited and was followed by late veinlets of carbonate.</p>
Sphalerite	—		
Galena	—		
Covellite		—	
Pyrite		—	
Gold	—	—	
Quartz	—	—	
Carbonate	—	—	
Potassium-feldspar	—	—	

DEFORMATION:

## Significance, discussion, conclusions:

One of the interesting things to note is that tetrahedrite does not exist in these three specimens. The soft grey mineral is not tetrahedrite it is stibnite. Covellite has not been observed in hand specimen, but it is abundant enough to account for copper analyses of 1%-2%. The paragenetic sequence is complex. Several of the minerals were deposited in more than one event. A period of deformation followed the major deposition of sulphides, but was in turn followed by a period of gold, covellite and gangue mineral deposition. These events indicate that the mineralization occurred during a tectonically active period.

## Rock name:

Sulphide-bearing quartz vein.

PETROGRAPHIC REPORT

Examiner P.G. Lhotka

Date May 23, 1983

Section: no. TS2  
location Trench I-1

T.S.  P.T.S.  P.S.

Specimen: no. location  
description, field name

Microscopic examination

A. Minerals	%	Optical properties	Mode of occurrence, distribution
REFLECTED LIGHT			
Stibnite	20	grey-white colour; strongly anisotropic with lamellar twinning	Irregularly-shaped masses which are highly fractured. Gangue minerals fill the fractures.
Sphalerite	50	medium grey colour; isotropic; moderately well developed cleavage	Forms of irregularly-shaped grains which contain inclusions of gangue and are cut by veinlets of gangue minerals.
Pyrite	2	pale yellow-colour; anisotropic	Euhedral grains of up to 0.1 mm in diameter which have altered limonite rims.
Covellite	Tr	deep blue colour with strong anisotropism	Small 0.1 mm diameter grains which occur at the contacts between sphalerite and stibnite.
Native Gold	Tr	bright yellow	At least 50 grains exist, the largest of which is 0.1 mm in diameter. Gold occurs a) associated with covellite and gangue b) at the contact between sphalerite and stibnite and c) in fractures in the covellite and quartz.

PETROGRAPHIC REPORT

Examiner P.G. Lhotka

Section: no. TS2  
location Trench I-1

Date

T.S.  P.T.S.  P.S.

Specimen: no. location  
description, field name

Microscopic examination

A. Minerals	%	Optical properties	Mode of occurrence, distribution
<u>TRANSMITTED LIGHT</u>			
Quartz	28	low relief; low birefringence	Irregularly-shaped grains with undulose extinction and numerous small inclusions.
Carbonate	Tr	high birefringence	Fills fractures in quartz.
Potassium-Feldspar	Tr	grid twinning	Irregular shaped grains of up to 1 mm diameter which are surrounded by sphalerite.

PETROGRAPHIC REPORT

Examiner P.G. Lhotka

Date May 17, 1983

Section: no. TS3

T.S.  P.T.S.  P.S. 

location Trench I-1

Specimen: no.

location

description, field name

## Microscopic examination

A. Minerals	%	Optical properties	Mode of occurrence, distribution
<u>REFLECTED LIGHT</u>			
Galena	10	bright white-grey colour; triangular pits; curvilinear cleavage	Occurs as coarse grained aggregates which replace gangue and as inclusions in gangue. Locally contains euhedral quartz crystals. Cleavages, which opened to form fractures, are filled by gangue.
Sphalerite	30	medium grey colour; isotropic	Sphalerite occurs as coarse irregularly-shaped grains which replace carbonate, but are in turn cut by late carbonate veinlets. Inclusions of sphalerite and galena exist in each other.
Native Gold	Tr	bright yellow	Three specks of gold exist near the contact between sphalerite and galena in sphalerite.
<u>TRANSMITTED LIGHT</u>			
Quartz	30	low relief; low birefringence	Anhedral to euhedral grains of up to 5 mm diameter. Some of the euhedral crystals have a rim of quartz and carbonate which is overgrown by quartz.
Carbonate	30	pink to brown tint in plane light	Occurs as masses of fine grained anhedral grains and as isolated euhedral rhombs within galena. Brownish-weathering