GEOLOGICAL AND GEOCHEMICAL REPORT

Joni, Keli, Edy, Hose, Jeri, Sin, Ott, Tomi, Yang,

Ralfo, Mungo, Chungo and Boz Claims

Claim Sheet 95 D/6

Latitude 60°23'

Longitude 127°20'

Yukon Territory

Covering Work During June 30 - August 5, 1982

By Sulpetro Minerals Limited

Authors: D.C. Miller and J.D. Blanchflower

Submitted: August 5, 1982

This report has been examined by the Geological Evaluation Unit under Section 53 (4) Yukon Quartz Mining Act and is allowed as representation work in the amount of $ 15,000.

P. Walker

for Regional Manager, Exploration and Geological Services for Commissioner of Yukon Territory.

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091077

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LOCATION AND ACCESS

The claims are located 80 km eastward of Watson Lake, Yukon. Access is by helicopter or some 48 km of winter road leading from the Alaska highway at Contact Creek. Fixed wing aircraft can land at a small lake at the adjoining Mel property in winter months.

PHYSIOGRAPHY

The claims are drained by Otter Creek and its tributaries. Topography is mountainous with relief in the order of 300 m . Forest cover includes mature timber with about 70% of the area covered by thick immature growth resulting from a 35 year old burn. Ice direction during the last glaciation was northward and eastward.

PROPERTY

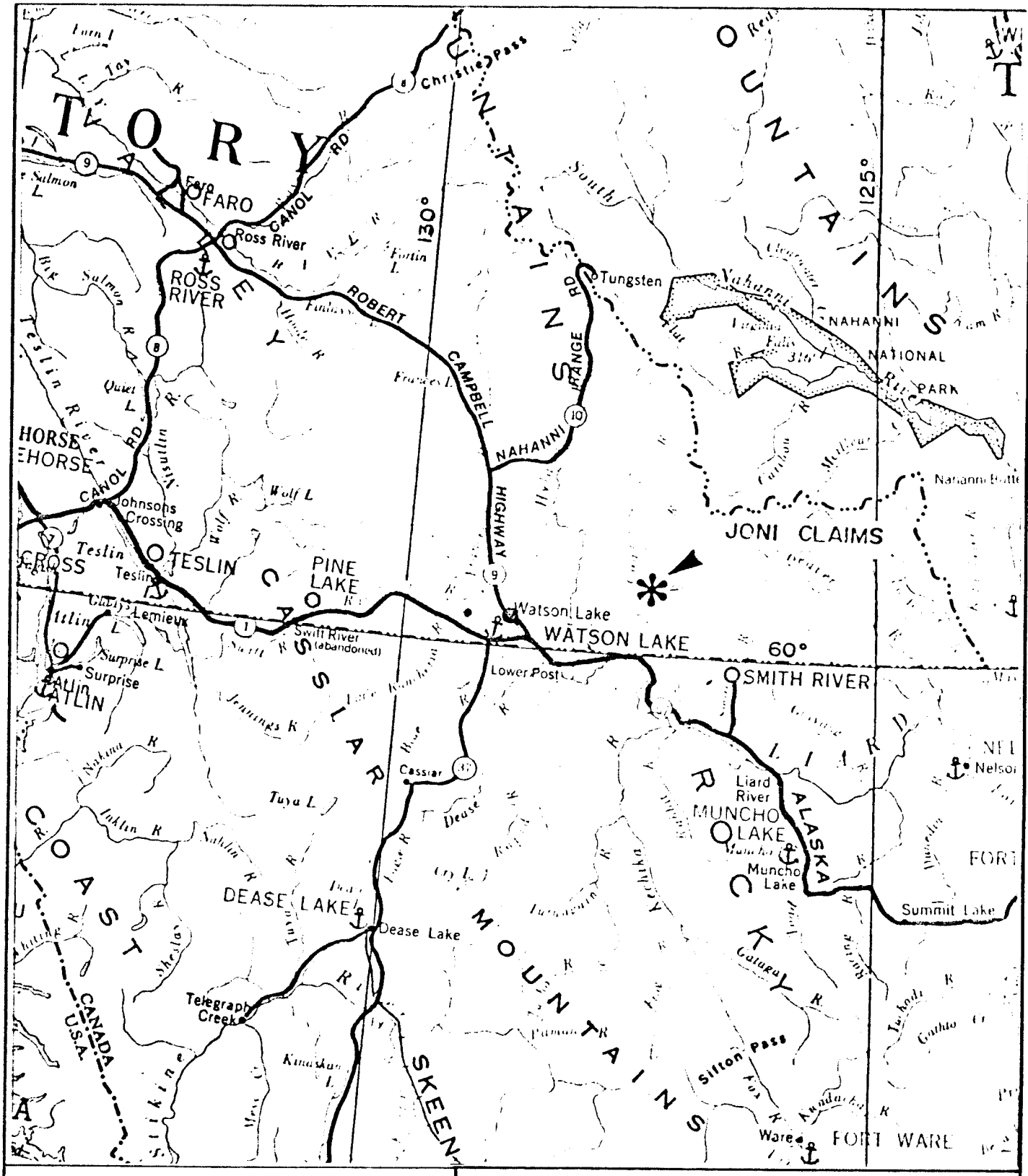
The property includes the following adjoining claims:

Claim Name	Grant No.	Anniversary Date
Keli 1 - 4	YA 66842-45	August 10
Joni 1 - 8	YA 66846-53	August 10
Hose 1 - 8	YA 66919-26	August 24
Keli 5 - 8	YA 66921-30	August 24
Jeri 1 - 8	YA 66931-38	August 24
Ralfo 1 - 7	YA 66939-45	August 24
Chungo 1 - 8	YA 66946-53	August 24
Ott 1 - 8	YA 66954-61	August 24
Edy 1 - 7	YA 66962-68	August 24
Tomi 1 - 8	YA 66969-76	August 24
Mumbo 1 - 8	YA 66977-84	August 24
Boz 1 - 4	YA 66985-88	August 24
Sin 1 - 8	YA 66989-96	August 24
Yang 1 - 6	YA 66997-YA67002	August 24

Total 96 claims

HISTORY

During regional prospecting in July 1981, three small outcrops containing smithsonite mineralization were found over a strike length



Scale: 1" = 50 miles

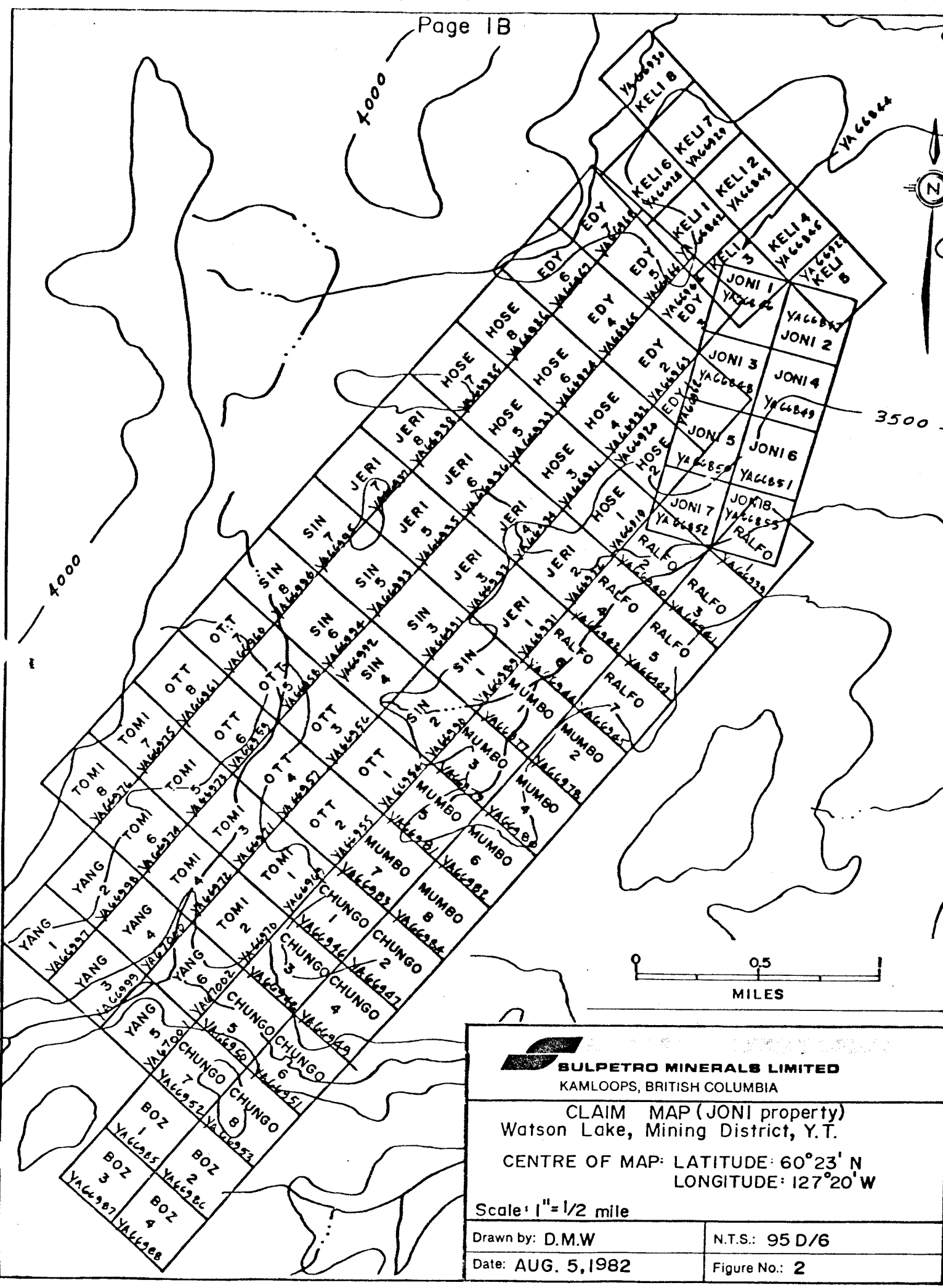
0 100 miles

SULPETRO MINERALS LIMITED
KAMLOOPS, BRITISH COLUMBIA

JONI CLAIMS
LOCATION MAP

Project no. 6251

Drawn by: D.M.W.	N.T.S.: 95 D/6
Date: AUG. 5, 1982	Figure No.: 1



BULPETRO MINERALS LIMITED
KAMLOOPS, BRITISH COLUMBIA

CLAIM MAP (JONI property)
Watson Lake, Mining District, Y.T.

CENTRE OF MAP: LATITUDE: 60°23' N
LONGITUDE: 127°20' W

Scale: 1" = 1/2 mile

Drawn by: D.M.W	N.T.S.: 95 D/6
Date: AUG. 5, 1982	Figure No.: 2

of 125 m at the contact of cryptograined limestone and limy phyllite at the base of Rabbit Kettle Formation. The mineralization occurs at the same stratigraphic level as mineralization at the adjoining Mel deposit, 7 km to the southwest. Assays of samples from the three outcrops average 9.6% zinc, less than 0.1% lead, 0.03 oz/ton silver and 0.03% barium.

SUMMARY OF CURRENT WORK

During July, 1982, geochemical soil sampling was done on the Joni and Keli claims and geological reconnaissance mapping was done over all claims in the process of affixing tags on claim posts.

On the Joni and Keli claims, a base line 2100 m long was cut and chained along the trend of the mineralization. Nineteen cross-lines totaling 2,850 m were flagged, chained and sampled at 10 or 20 m intervals. These cross-lines are 100 m apart. Orientation of lines was by compass.

Additional samples were collected at 50 m stations along the base line and along the Joni claim line.

A total of 247 soil samples were collected in kraft bags, field dried and analyzed by the atomic absorption method for zinc, lead, and silver by Eco-Tech Laboratories, Kamloops, B.C.

GEOLOGY

INTRODUCTION

In general, outcrops are rare except along stream cuts and steep slopes. The best rock exposures are found along Otter Creek on the Yang and Chungo claims and on a steep hillside on the Joni claims.

On the acoompanying plan (Figure 7) new zinc showings found on the Joni 2 claim are referred to as the Mel-East Zone. For correlation purposes, geology of the Mel deposit has been plotted adjoining the Yangand Tomi claims.

Four mile geological mapping of the area was done by the Geological Survey of Canada, Paper 68-38, and units described in the following are correlated with G.S.C. map units.

TABLE OF FORMATIONS

Period	G.S.C. Map Unit	Property Map Unit	Lithology	Thickness Metres
Middle Ordovician	9	7	Dark and light grey dolomite	600+
Cambrian and Ordovician	8	6	Dark grey wavy banded limestone	800+
	8	5	Brown and grey calcareous phyllite	10-45
	-	4	Smithsonite - Quartz	2+
Lower Cambrian	5	3	White cyrpto-grained limestone and grey to buff dolomite	100-150
	-	2	Alteration Zone 2a Dolomitization 2b Silification	10+
	5/4c	1	Grey dolomite, brown sandstone, dark grey lime-stone, dark grey calcareous shale and siltstone	400+

STRATIGRAPHY

Unit 1 (Part of G.S.C. Unit 5 or Unit 4c)

In the Mel-East (Joni) area, Unit 1 is found in small outcrops and comprises interbedded grey dolomite and grey sandstone, grey thin bedded limestone and brown siltstone. In the Mel area this unit is mainly medium to dark grey calcareous shale and siltstone.

Unit 2 (Part of G.S.C. Unit 5)

Unit 2 is an alteration zone consisting of silicification and dolomitization and in the Mel-East area occurs near the top of the cryptograined limestone just below mineralization. The zone is 10 m + thick. In the Mel area, dolomitization occurs at the base of the cryptograined limestone.

Unit 3 (Part of G.S.C. Unit 5)

Unit 3 consists of white to light grey cryptograined limestone with variable dolomite or silica alteration.

Unit 4

Unit 4 comprises mineralization. In the Mel-East Zone, mineralization consists of smithsonite blebs in silicified limestone at the top of Unit 3. The zone appears to be stratigraphically controlled but is poorly exposed in three small outcrops over a strike-length of 125 m. Total length and thickness of the zone are presently unknown.

At the Mel, mineralization in this horizon is up 15 m thick and 900 m long and comprises sphalerite, galena and barite. No galena or barite have yet been identified in Mel-East Zone.

Unit 5 (Part of G.S.C. Unit 8, Rabbit Kettle Formation)

Unit 5 comprises brown and grey calcareous phyllite and forms the base of the wavy banded limestone unit just above mineralization. This unit is present at Mel-East but is not as well defined as it is at Mel.

Unit 6 (Part of G.S.C. Unit 8, Rabbit Kettle Formation)

Unit 6 comprises wavy banded silty limestone and is gradational with Unit 5. This unit has a distinctive rough pitted appearance on weathered surfaces because of differential solution of limestone and silty components.

Unit 7 (Part of G.S.C. Unit 9 ? Sunblood Formation)

Unit 7 consists of light to dark grey weathered thicked-bedded dolomite with minor black chert modules .

STRUCTURE

Beds strike northward and dip mainly westward to vertical in the Mel-East area. Mel-East mineralization and adjacent strata occupy the eastern limb of an overturned syncline. Tops are up at the Mel-East and overturned at the Mel Deposit 7 km to the west. The plunge of the syncline is unknown. The distribution of Unit 6 suggests a possible subordinate fold or relatively shallow dips in the Mel East area.

The location of outcrops of cryptograined limestone below Unit 6 on the Ralfo 1 claim suggests the trace of the Rock River Fault, shown on G.S.C. Map 11-1968, is further east.

MINERALIZATION AND ALTERATION

Mineralization comprises smithsonite pseudomorphs ranging from less than 1 mm to 2 cm. Mineralization is exposed in three small outcrops over a strike-length of 125 m. The true thickness of the mineralization is unknown, but is up to 2 m.

The host rock is silicified cryptograined limestone at the stratigraphic top of this unit immediately below the wavy banded limestone unit. Below mineralization, limestone is dolomitized and partly silicified over a width of 10 m or more.

Three grab samples from the three mineralized outcrops averaged 8.6% Zinc, less than 0.1% lead, 0.03 oz/ton silver and 0.03% barium.

GEOCHEMISTRY

GENERAL

Soil samples were taken along the trend of the mineralized zone over a total length of 2100 m. Sample locations and analyses results are shown on accompanying figures 5 and 6.

Where possible, samples were collected from the B horizon at depths of 10-15 cm. A few samples were collected from the A horizon and are identified on the accompanying figures 5 and 6. The typical soil profile included about 7 cm of A horizon organic material, 3 cm of volcanic ash and 5 cm of B horizon brown to grey soil grading into c horizon soil and rock fragments.

ZINC

Because many of the samples were obtained along the mineralized trend, probably too few outlying samples were taken to obtain the

regional threshold. At the Mel,where a larger survey was previously done, the regional threshold for zinc was 300 ppm. A cumulative frequency diagram of the zinc distribution indicates a break in slope at 210 ppm zinc in the upper 27% of the data. On the projected line of background data, two standard deviations occur at 560 ppm zinc and three standard deviations occur at 1200 ppm zinc.

Considering the foregoing, the zinc threshold is estimated at 300 ppm and definitely anomalous values exceed 1200 ppm.

Possibly anomalous zinc values (300 to 1200 ppm) occur on cross lines 92N, 94N, 96N, 97N and from lines 100 to 108N an aggregate length of 1400 m.

Definitely anomalous zinc values were obtained on lines 99+50N, 100N, 100+50N and 107N.

LEAD

The threshold for lead is estimated at 96 ppm, possibly anomalous 96-168 ppm and definitely anomalous greater than 168 ppm. Possibly anomalous lead values occur on lines 92N, 96N, 101N. Definitely anomalous lead occurs on line 92N. The distribution of elevated lead values corresponds well with higher zinc values.

SILVER

Silver values range from 0.2-1.3 ppm. In general, silver correlates with lead and silver analyses were plotted with lead values on Figure 6.

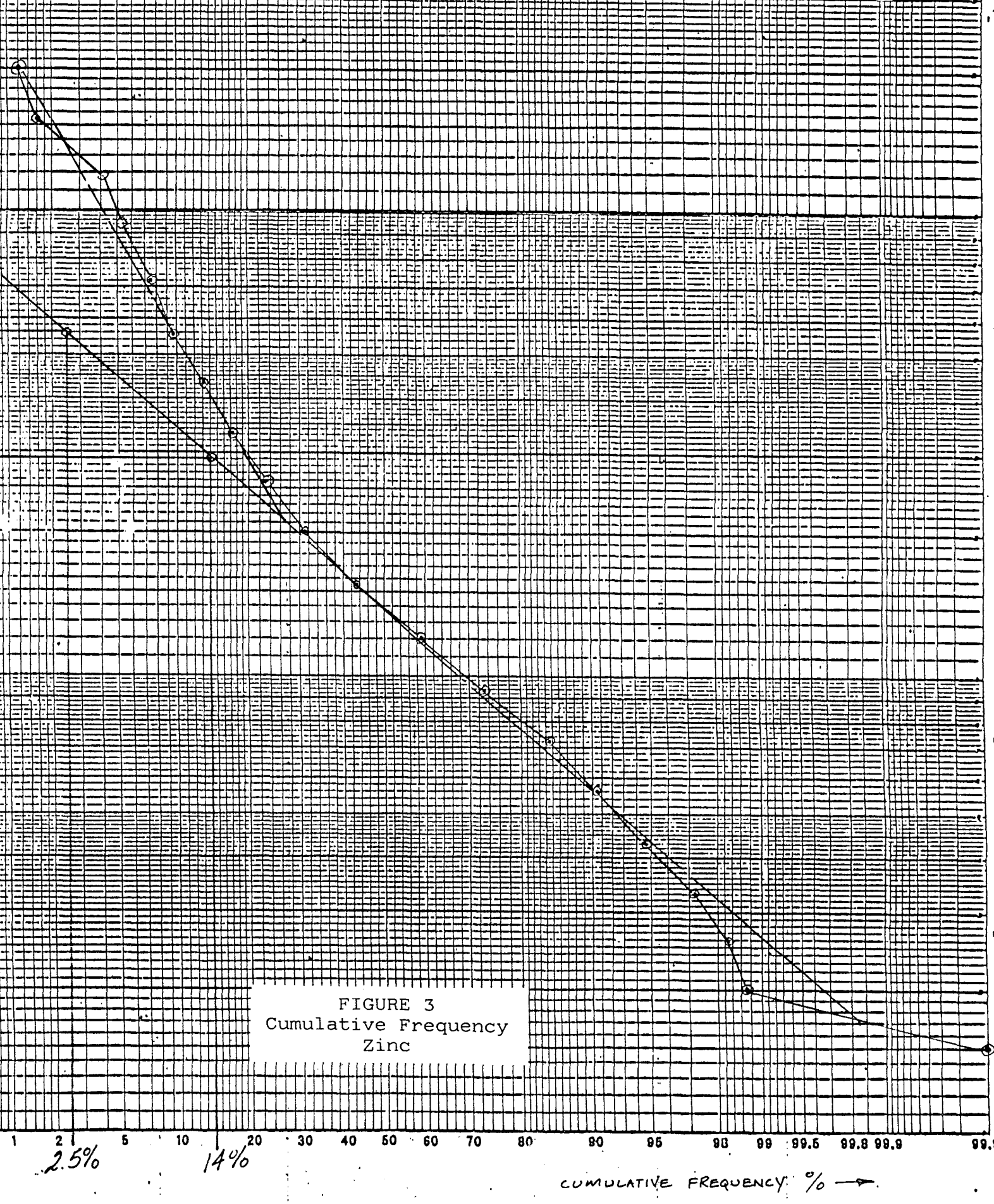


FIGURE 3
Cumulative Frequency
Zinc

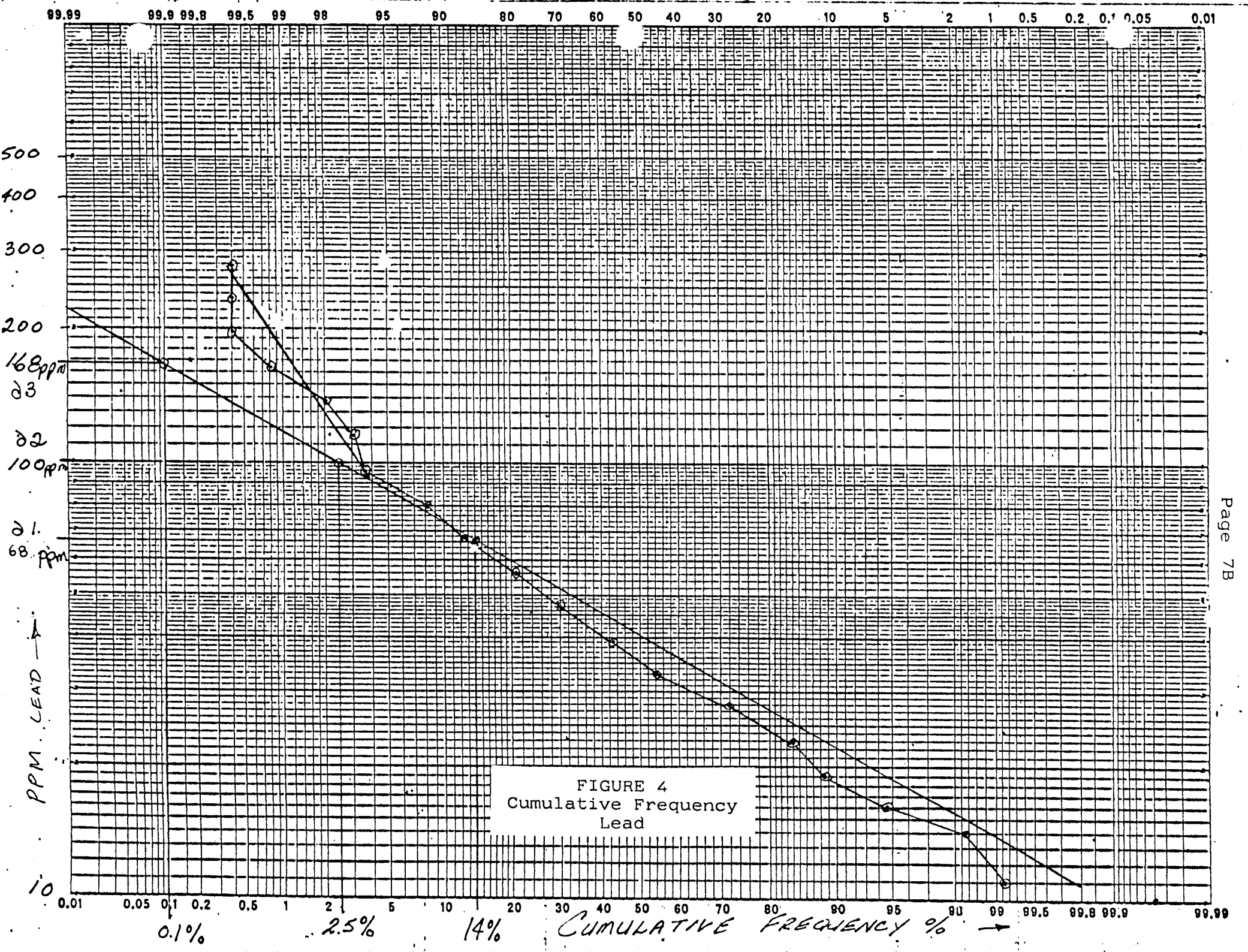


FIGURE 4
Cumulative Frequency
Lead

CONCLUSIONS:

The Mel-East Zone occurs at the same stratigraphic level as the Mel deposit but differs in that no barite or galena are present. Mineralized outcrops are too few to adequately assess the length, width and zinc content of the zone.

Geochemically, the response from the Mel-East Zone is weaker and less extensive than at Mel, however, anomalous zinc values are found over a considerable length.

Results to date suggest the Mel-East Zone is fringe mineralization and better mineralization may be found nearby.

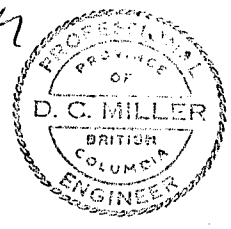
RECOMMENDATIONS:

Hand trenching, additional geochemistry south and possibly west of the zone, and more detailed geological mapping are recommended. If this work is positive, diamond drilling should be done west of the zone.

Respectfully submitted,

D.C. Miller

August 5, 1982



J.D. Blanchflower

DCM:JDB:dw

STATEMENT OF QUALIFICATIONS

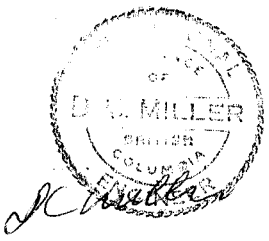
I, David C. Miller, of 1278 Dalhousive Drive, Kamloops, B.C., do hereby certify that:

(1) I am a graduate of the University of British Columbia and obtained a B.A. Sc. degree in Geological Engineering in 1959.

(2) I have had twenty-three years experience in mining geology and mineral exploration.

(3) I am a Registered Professional Engineer in the province of British Columbia.

(4) I supervised the work described in this report.



D.C. Miller, P. Eng.

August 5, 1982

STATEMENT OF QUALIFICATIONS

I, J. Douglas Blanchflower, of 1278 Dalhousive Drive, Kamloops, B.C., do hereby certify that:

(1) I am a graduate of the University of British Columbia, B. Sc. (Honours Geology), 1971.

(2) I have continuously practised my profession in economic geology for 11 years.

(3) I am a Fellow in the Geological Association of Canada.

(4) I carried out a portion of the geological mapping and sampling discussed in this report.

(5) I have been employed as a geologist for Sulpetro Minerals Limited since May, 1980.

J.D. Blanchflower, B.Sc.
Geologist

August 5, 1982

LIST OF PERSONNEL, ADDRESSES AND DATES EMPLOYED:

D.C. Miller
11-1278 Dalhousie Drive, Kamloops, B.C., V2C 6G3
June 30, July 5-16, July 20, 21, 29. August 3, 4, and 5, 1982

J.D. Blanchflower
11-1278 Dalhousie Drive, Kamloops, B.C., V2C 6G3
July 5-16, July 22 and 23, 1982

D. Windsor
11-1278 Dalhousie Drive, Kamloops, B.C., V2C 6G3
June 30, July 5-16, July 19-21, July 27-30 and August 3, 1982

N. Taylor
658 Fraser Street, Kamloops, B.C., V2C 3H2
July 5-16, 1982

Cost Statement - Joni Property

June 30 - August 5, 1982

Wages and Salaries

D.C. Miller, June 30, July 5-16, July 20, 21, 29, August 3-5, 1982, total 19 days.

J.D. Blanchflower, July 5-16, July 22-23, 1982, total 14 days.

D. Windsor, June 30, July 5-16, July 19-21, July 27-30, August 3, 1982, total 20 days.

N. Taylor, July 5-16, 1982, total 12 days.

Total 65 man-days	**$9,802.22**

Transportation

Frontier Helicopters Ltd. Invoices 4034 and 4058	$2,617.00	
B.C. Yukon Air Service Ltd. Invoices 2689 and 2705	507.20	
1981 GMC Suburban 4 Wheel Drive, July 5-16	740.00	
		$3,864.20

Food and Accomodation

July 5-16, 48 man-days	$1,339.70

Analysis

Eco-Tech Laboratories Ltd., Kamloops, B.C. 247 geochemical analyses for silver, lead, and zinc	
Invoice ET-134	$ 802.75

Consumable Field Supplies

Sample bags, flagging, topofil, naptha, batteries, water barrel	$ 125.00
Printing and Typing	$ 250.00
Total	**$16,183.87**

KELI 6 | KELI 7

KELI 1 | KELI 2
KELI 3 | KELI 4

KELI 5

EDY 7

EDY 4 | EDY 5
EDY 2 | EDY 3

HOSE 4
HOSE 2 | EDY 1

HOSE 1

RALFO 2
RALFO 3

RALFO 1

JONI 1 | JONI 2
JONI 3 | JONI 4

JONI 5 | JONI 6
JONI 7 | JONI 8

BL 215° azimuth

BL 195° azimuth

L 110 N
L 109 N
L 108 N
L 107 N
L 106 N
L 105 N
L 104 N
L 103 N
L 102 N
L 101 N
L 100 N
L 99 N
L 98 N
L 97 N
L 96 N
L 95 N
L 94 N
L 93 N
L 92 N

H 278

SYMBOLS

- SAMPLE LINE
- CLAIM BOUNDARY
- SWAMP
- CREEK
- X SILT SAMPLE
- 78 SOIL SAMPLE
- ROCK SAMPLE
- (H) HELI - PORT

LINE SPACING 100m

- HUMUS - "A" HORIZON

TRUE NORTH
30° 59' E
MAGNETIC NORTH

SAMPLE THRESHOLD — 300 PPM

DEFINITELY ANOMALOUS > 1200 PPM

POSSIBLY ANOMALOUS 300—1200 PPM

LOCATION MAP
N.T.S. 95 D
1:250,000
0 10 Kilometres

MEL PROPERTY
MEL - EAST ZONE
South River
Otter Creek
Rock River
127°45'W
127°00'W
60°15'N

SCALE 1:2500
50 0 50 100 150 200 metres

091077

TO ACCOMPANY A REPORT BY D.C. MILLER & J.D. BLANCHFLOWER DATED AUGUST 5, 1982

SULPETRO MINERALS LIMITED
KAMLOOPS, B.C.

MEL - EAST ZONE
SOIL GEOCHEMISTRY - Zn (p.p.m.)

SCALE: 1:2500

APPROX. LAT. & LONG OF LOWER RT. COR. OF DWG.
60° 22' 00" LATITUDE
127° 16' 00" LONGITUDE

PROJECT NO. 6151
FIGURE NO. 5
SHEET NO. ___ OF ___
N.T.S. 95D/6

KELI 6 KELI 7
KELI 1 KELI 2
KELI 3 KELI 4
EDY 7
EDY 4 EDY 5
EDY 2 EDY 3
HOSE 4
HOSE 2 EDY 1
HOSE 1
JONI 1 JONI 2
JONI 3 JONI 4
JONI 5 JONI 6
JONI 7 JONI 8
RALFO 2
RALFO 3
RALFO 1
KELI 5
BL 215° azimuth
BL 195° azimuth
L 110 N
L 109 N
L 108 N
L 107 N
L 106 N
L 105 N
L 104 N
L 103 N
L 102 N
L 101 N
L 100 N
L 99 N
L 98 N
L 97 N
L 96 N
L 95 N
L 94 N
L 93 N
L 92 N

42 .6
74 1.3
28 .2
30 .2
28 .2
22 .2
34 .2
28 .2
28 .2
28 .2
34 .4
28 .3
36 .3
44 .2
20 .2
26 .2
24 .2
28 .2
30 .2
38 .2
36 .2
32 .4
46 .3
140.3
28 .3
32 .3
34 .3
54 .4
30 .5
140.2
16 .2
48 .2
32 .2
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28 .5
52 .8
50 .5
38 .4
80.2
120.2
80.3
36 .3
22 .2
28 .4
400.3
46 .3
71 .4
62 .6
48 .4
54 .3
40 .4
36 .2
38 .3
26 .3
26 .4
30 .3
18 .4
32 .7
780.6
58 .6
16 .2
140.3
120.4
22 .2
22 .4
200.3
47 .4
18 .2
30 .5
36 .4
48 .4
16 .2
26 .3
22 .3
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35 .3
38 .3
42 .4
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36 .3
16 .3
58 .5
66 1.0
78 1.0
20 .2
22 .2
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18 .2
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20 .2
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68 .6
84 .5
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104 1.8
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74 .2
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16 .2
74 .5
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22 .2
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16 .2
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30 .4
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36 .3
80 .6
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136 .2
30 .4
40 .2
102 .8
36 .2
32 .2
36 .2
34 .2
20 .2
32 .3
22 .2
44 .4
66 .6
74 .5
50 .3
40 .3
52 .4
54 .3
44 .3
36 .2
50 .2
30 H .2
38 .3

TRUE NORTH
30°59' E
MAGNETIC NORTH

SYMBOLS

- SAMPLE LINE
- CLAIM BOUNDARY
- SWAMP
- CREEK
- X SILT SAMPLE
- Pb / Ag — 60 / .3 SOIL SAMPLE
- ROCK SAMPLE
- (H) HELI - PORT
- LINE SPACING 100m
- HUMUS - "A" HORIZON

Pb SAMPLE THRESHOLD - 96 PPM

Pb DEFINITELY ANOMALOUS > 168 PPM

Pb POSSIBLY ANOMALOUS 96 – 168 PPM

LOCATION MAP
N.T.S. 95 D
1 : 250,000
0 10 kilometres
MEL PROPERTY
MEL - EAST ZONE
Rock Creek
Otter
Cash River
Rock River
127°45' W
127°00' W
60°15' N

SCALE 1 : 2500
50 0 50 100 150 200 metres

091077

TO ACCOMPANY A REPORT BY D.C. MILLER & J.D. BLANCHFLOWER DATED AUGUST 5, 1982

SULPETRO MINERALS LIMITED
KAMLOOPS, B.C.

MEL - EAST ZONE
SOIL GEOCHEMISTRY-Pb, Ag(p.p.m.)

SCALE 1 : 2500

APPROX. LAT. & LONG OF LOWER RT. COR. OF DWG.
60 ° 22 ' 00 " LATITUDE
127 ° 16 ' 00 " LONGITUDE

PROJECT NO. 6151
FIGURE NO. 6
SHEET NO. ___ OF ___
N.T.S. 95D/6

MEL- EAST ZONE

MEL-DEPOSIT
Zn-Pb-Ba

MEL- CAMP

OTTER CREEK

3500 4000 3000

60°23 12°20

- LEGEND -

7 GREY DOLOMITE

6 GREY WAVY BANDED SILTY LIMESTONE

5 BROWN AND GREY CALCAREOUS PHYLLITE

4 MINERALIZATION - ZINC / LEAD-BARITE

3 CRYPTOGRAINED LIMESTONE

2 ALTERATION
2a DOLOMITIZATION
2b SILICIFICATION

1 LIMESTONE 1a
SANDSTONE, SILTSTONE 1b
DOLOMITE 1c

- SYMBOLS -

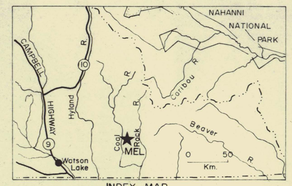
- CLAIM BOUNDARY
- TRAIL
- CABIN
- INTERMITTENT, STREAM
- LAKE
- SHOWING, Zn and or Pb
- WINTER ROAD
- GENERALIZED OUTCROP
- BEDDING(horizontal, inclined, vertical)
- FAULT (defined, approximate)
- FOLIATION (inclined, vertical)
- SYNCLINE (OVERTURNED)
- CSa. O SPRING
- GEOLOGIC CONTACT

TRUE NORTH
30° 59'
MAGNETIC NORTH

SCALE 1:10,000

100 50 0 100 200 300 400 500 600 700 800 900 1000 metres

CONTOUR INTERVAL: 500 feet



INDEX MAP
Scale 1:500,000

091077

TO ACCOMPANY A REPORT BY D.C. MILLER & J.D. BLANCHFLOWER DATED AUGUST 5, 1982

SULPETRO MINERALS LIMITED
KAMLOOPS B.C.

MEL-EAST ZONE
GEOLOGY

SCALE: 1:10,000

APPROX. LAT. & LONG. OF LOWER RT. COR. OF DWG.
127° 17' 00" LATITUDE
60° 20' 30" LONGITUDE

PROJECT NO. 6251

FIGURE NO. 7

SHEET NO. ___ OF ___

N.T.S. 95 D/6