Jan 4 1982

116I/2

TOUCHÉ 1-56 CLAIMS

GEOLOGY AND GEOCHEMISTRY, 1980

DAWSON MINING DISTRICT

NTS: 106L AND 116I

LATITUDE: 66°51'N

LONGITUDE: 136°02'W

AUTHOR: J. BICZOK, H.B.Sc., P. METCALFE, B.Sc.

OWNER: MATTAGAMI LAKE EXPLORATION LIMITED

DATE: DECEMBER, 1981

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 $ 5,600.

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

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CHAPTER ONE: INTRODUCTION

1.1: Location and Access

The TOUCHÉ 1-56 claims are located in the northern Richardson Mountains at 136°02'W, 66°51'N (Figure 1). They straddle Cornwall Creek, a tributary of the Rock River, approximately 12km east of the Dempster Highway (Figure 2). The town of Inuvik is approximately 300km by road to the north, and Dawson 500km to the south.

Access was by helicopter from a gravel pit beside the Dempster Highway. If future developments warrant it, a road could easily be constructed to the property. The potential routes traverse an area of rolling hills with gentle slopes.

1.2: History of the Claims

The TOUCHÉ 1-56 claims were staked by the author and his crew on July 1, 1980 and recorded on July 8, 1980. Grant numbers assigned to the claims are YA 52693 to YA 52748 inclusive. Upon filing of this report the claims will be in good standing until July 8, 1982.

The TOUCHÉ area was first investigated by the company during a 1979 regional stream sampling program. Ground follow-up of Cu-Ba geochemical anomalies led to the discovery of outcrops of spectacular crystalline barite and fault related Pb-Zn-Ag mineralization. The TOUCHÉ claims were immediately staked to cover this mineralization. A minor stream sampling and prospecting program was subsequently carried out by company personnel in the summer of 1980.

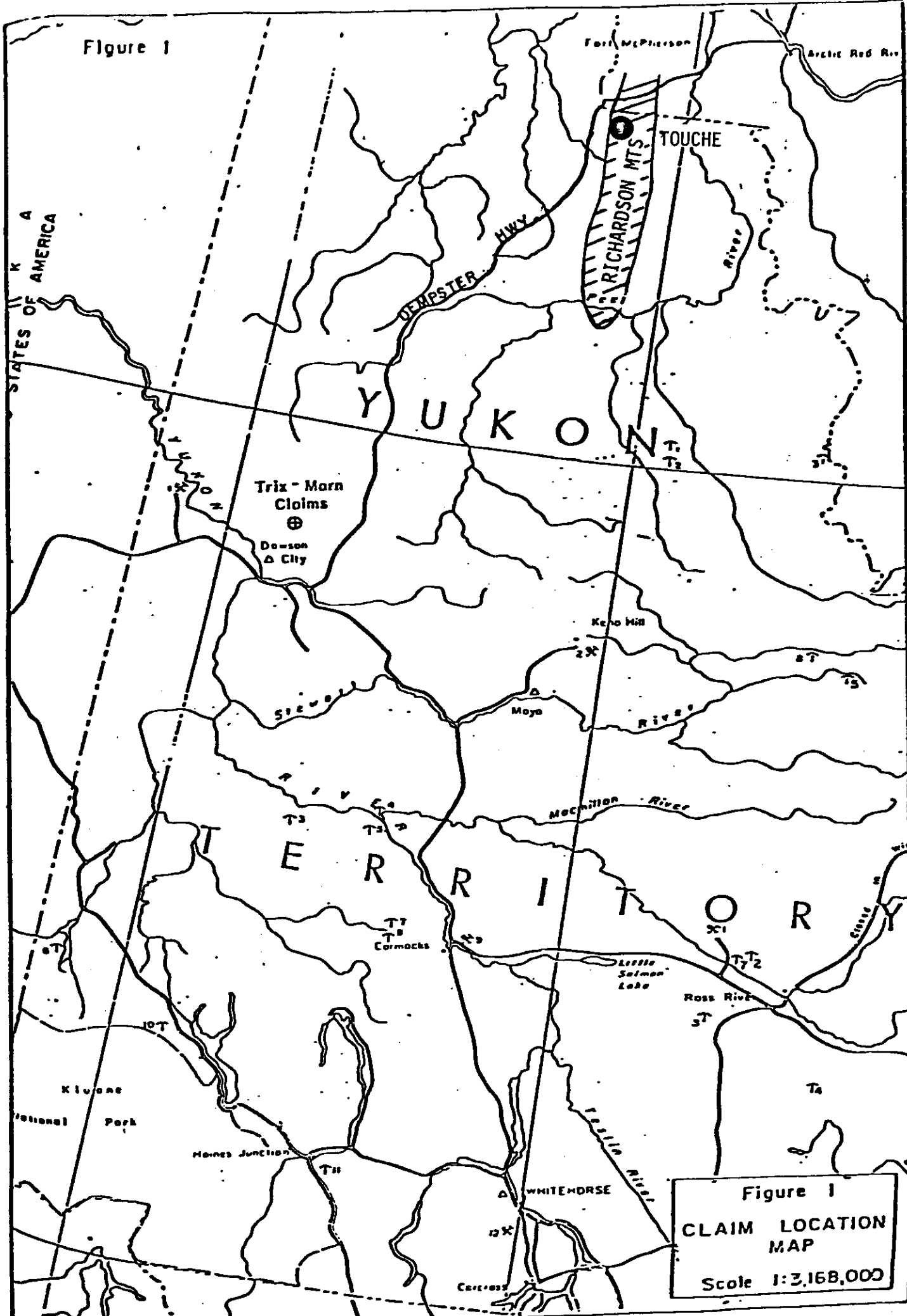
Figure 1
TOUCHE
RICHARDSON MTS.
DEMPSTER HWY
STATES OF AMERICA
YUKON
TERRITORY
Trix - Morn Claims
Dawson City
Keno Hill
Mayo
Stewart River
McMillan River
Carmacks
Little Salmon Lake
Ross River
Klusane National Park
Haines Junction
WHITEHORSE
Teslin River
Figure 1
CLAIM LOCATION MAP
Scale 1:3,168,000

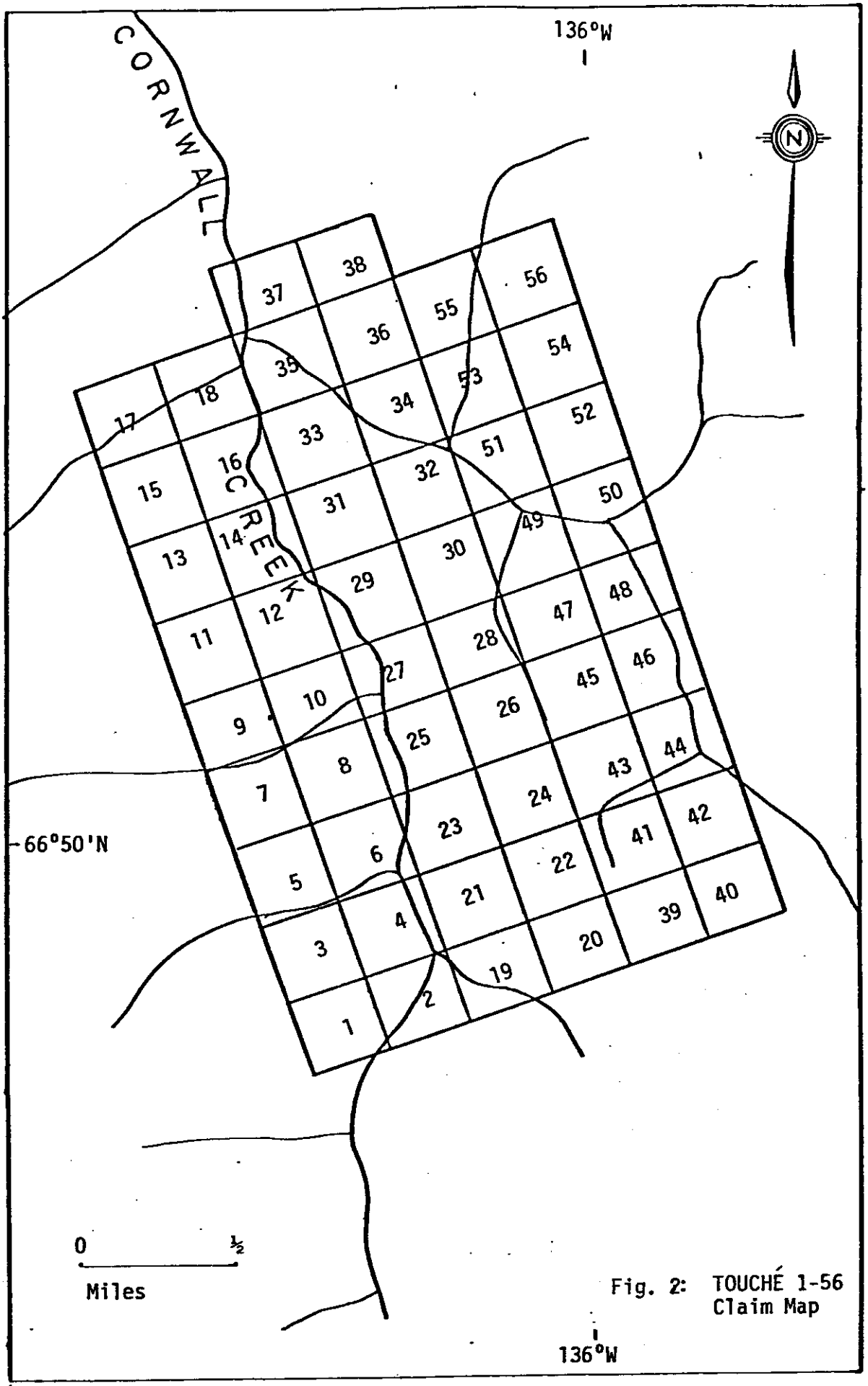

Fig. 2: TOUCHÉ 1-56
Claim Map

1.3: Physiography and Vegetation

In the Rock River area, the Richardson Mountains form a north-south trending belt, roughly 20km wide, separating the Porcupine Plain on the west from the Peel Plateau to the east. Since the range consists almost entirly of relatively shallow dipping sedimentary strata which have not been glaciated, it is topographically expressed as a series of low rolling hills, often with moderate slopes. Water erosion has produced numerous V-shaped valleys and canyons but these are generally of little consequence to the region's accessibility. The maximum local elevation seldom exceeds 3,500 ft. (1,067m).

Trees and shrubs of a significant height are quite rare in the Richardson Mountains. They are generally found in sheltered valley bottoms. Most slopes are covered with grass, lichen and moss. On the TOUCHÉ property, shrubs and trees are found on the steep eastern bank of Cornwall Creek, extending uphill to the western edge of the grid. The rest of the property is largely bare of trees or shrubs.

1.4: 1980 Work Program

During the 1980 field season, camp was established beside the Dempster Highway, approximately 3km south of the Rock River, during the month of July. The work program consisted of stream sampling (silt, water and panned samples) preospecting and a minor amount of mapping. Helicopter support was provided by a Jet Ranger III on contract from Shirley Helicopters Ltd. of Edmonton, Alberta. The crew consisted of the following personnel:

J. Biczok	Project Geologist
P. Metcalfe	Party Chief
P. Lhotka	Senior Assistant
A. Lane	Junior Assistant
T. Donnelly	Junior Assistant
C. Reid	Junior Assistant
G. Webber	Pilot

A total of 42 mandays were expended in the area with approximately 18 mandays spent specifically on the TOUCHE and adjacent area.

CHAPTER TWO: GEOLOGY

2.1: General Geology

The geology of the Richardson Mountains has been previously described in company reports (Biczok, 1979 and Metcalfe, 1980) and by D.K. Norris of the GSC (1979). Briefly, the range consists of a breached north-south trending anticlinorium cored by a Cambrian sequence of limestone and siltstone. This is flanked to the east and west by the Ordovician-Silurian Road River Formation and a middle to upper Devonian clastic sequence of shale, sandstone and conglomerate. Igneous intrusions are unknown in this range.

2.2: Detailed Geology

The TOUCHÉ claims straddle a major fault zone which separates middle Cambrian clastics to the west from the Road River Formation to the east (Map 1). The fault strikes about 160° and extends for 27km to the southeast and at least 20km to the northwest. It appears to have a vertical dip and a width of up to 50m. Since the fault zone is recessive, it generally forms a prominent depression flanked on one, or both sides, by a prominent escarpment.

The Cambrian clastic sequence consists of quartzite, conglomerate and shale. Siliceous quartzite appears to be the dominant lithology along the west side of the fault. To the east of the fault zone, the Road River Formation dominates. It consists of a lower graptolite shale member overlain by a thick limestone succession. The contact between the two members appears to trend north-south about 100m east of the fault.

A 3m x 7m outcrop of spectacular crystalline barite was found near the fault zone (Map 1). The occurrence appears to be a hydrothermal vein system

associated with the fault. Translucent blue barite crystals, commonly up to 8cm in diameter, occur in an irregular network of cross-cutting veins.

CHAPTER THREE: GEOCHEMISTRY

A total of 32 silt, 32 water and 17 rock samples were collected for analysis. Sample locations are displayed on Map 1 (in pocket) and tabulated in Appendix One. Analyses were performed by the Noranda Exploration laboratory in Vancouver, B.C.

Within the claim area the silt sample results do not appear to be very useful for locating mineralization. There is no significant increase in the base metal values downstream from known mineralized outcrops (eg. the barite vein, an outcrop of sphalerite bearing calcite). Downstream from the claims, significant copper anomalies do not appear to be derived from a mineralized source. Intensive prospecting in this area has failed to locate any mineralized showings.

Respectfully submitted,

John Biczok

J. Biczok

Exploration Geologist

JB/sal

APPENDIX ONE: 1980 GEOCHEMICAL RESULTS, TOUCHE 1-56

GEOCHEMICAL RESULTS, RICHARDSON MOUNTAINS 1980, SEDIMENTS (in ppm)

Sample No.	Cu	Pb	Zn	Ag	Mo	U	Ba
S-29	88	62	290	0.8	6	2.2	8100
30	94	76	290	0.8	8	2.3	9100
31	72	14	270	0.6	4	1.7	1000
32	32	72	100	0.2	2	1.2	2300
33	76	12	160	0.4	4	1.7	7700
34	72	18	120	0.4	2	1.4	10000
35	56	26	170	0.6	2	1.4	9100
36	52	32	160	0.4	2	1.4	7700
37	60	18	170	0.4	<2	1.6	11000
38	48	28	260	0.6	18	2.9	7400
39	46	38	190	0.4	2	1.6	11000
40	50	18	220	0.6	2	2.0	9000
44	16	34	94	0.2	<2	0.6	
45	20	54	170	0.2	2	1.1	
46	12	5	54	0.2	2	0.8	
47	38	20	270	1.2	4	2.5	
48	20	10	48	0.4	6	1.4	
49	34	40	190	0.4	2	2.4	
50	36	10	130	0.8	6	1.7	
51	46	22	240	1.2	6	6.4	
52	42	30	260	0.8	4	2.5	
53	24	6	92	0.2	6	1.4	
54	38	42	270	0.8	10	2.3	
525	30	38	110	0.4	<2	0.7	4700
526	32	48	180	0.2	2	1.6	1700
527	24	38	200	0.4	2	2.1	1100
528	40	34	120	0.2	2	1.3	2300
529	28	12	90	0.2	4	1.5	1000
530	34	30	110	0.2	2	1.1	3000
531	34	22	120	0.2	<2	1.6	700
532	52	74	240	0.4	<2	1.3	3200
533	38	32	160	0.6	2	1.3	1600

GEOCHEMICAL RESULTS, RICHARDSON MOUNTAINS 1980, WATER SAMPLES (in ppb)

Sample No.	Cu	Pb	Zn	U	F	pH
W-29	<10	<10	<10	1.1	40	7.42
30	<10	<10	<10	1.1	40	7.44
31	<10	<10	<10	0.9	30	7.21
32	<10	<10	<10	0.5	30	7.24
33	<10	<10	<10	0.8	30	7.09
34	<10	<10	<10	0.7	30	7.21
35	<10	<10	<10	0.7	30	7.29
36	<10	<10	<10	1.1	40	7.28
37	<10	<10	<10	0.8	30	7.49
38	<10	<10	20	1.0	30	7.17
39	<10	<10	<10	0.8	30	7.26
40	<10	<10	<10	0.8	40	7.24
44	<10	<10	<10	0.2	20	7.44
45	<10	<10	<10	0.6	20	7.40
46	<10	<10	<10	0.1	<10	7.33
47	<10	<10	<10	0.4	20	7.00
48	<10	<10	20	<0.1	<10	6.04
49	10	<10	<10	0.2	10	6.72
50	<10	<10	<10	0.4	20	7.13
51	<10	<10	<10	0.9	20	6.82
52	<10	<10	<10	0.1	20	7.15
53	<10	<10	<10	0.6	20	7.25
54	<10	<10	<10	<0.1	60	7.26
525	<10	<10	<10	0.5	20	7.62
526	<10	<10	<10	0.5	20	7.58
527	<10	<10	<10	0.2	10	7.36
528	<10	<10	<10	0.6	20	7.22
529	<10	<10	<10	0.8	20	7.46
530	<10	<10	<10	0.7	20	7.55
531	<10	<10	<10	1.2	10	7.56
532	<10	<10	<10	1.0	10	7.50
533	<10	<10	<10	0.8	20	7.32

GEOCHEMICAL RESULTS, RICHARDSON MOUNTAINS 1980, ROCK SAMPLES (in ppm)

Sample No.	Cu	Pb	Zn	Ag	Mo	W	Sn	F	Ba	U
R-525	66	24	102	0.4	4	0	0	840		1.3
528	14	4	28	0.2	3	0	0	500		0.8
530	30	14	12	0.2	7	10	0	680		1.3
531	-	2	32	0.2	1	10	0	170		<0.1
532	-	2	720	0.2	1	0	0	660		<0.1
533	-	2	18	0.2	3	0	0	140		<0.1
534	640	2	6	0.2	2	0	0	690		1.6
535	10	2	10	0.2	2	0	0	130		<0.1
536	6	2	8	0.6	3	0	0	105		<0.1
637	10	2	108	0.2	5	0	0	160		<0.1
538	-	2	8	0.4	2	0	0	330		0.4
539	42	2	62	0.4	2	0	0	470		0.8
540	98	2	540	1.0	3	0	0	345	3600	0.2
541	24	4	192	0.2	2	0	0	385	2160	0.1
542	60	206	-	0.2	8	0	0	320	2250	1.2
543	-	70	54	0.2	6	5	0	130	530	<0.1
544	110	2	130	0.2	4	0	0	440	1400	0.4

APPENDIX TWO: STATEMENT OF COSTS

STATEMENT OF COSTS

Wages: 2 personnel @ $ 75/day x 4 days 4 personnel @ $ 60/day x 4 days	$ 1,560.00
Camp Supplies:	450.00
Vehicle Rental and Operations:	520.00
Helicopter: 11.4 hours x $ 345/hour + fuel	4,218.00
Analyses:	
Silt and rock samples are $ 1.25 for the first element and 60¢ for each additional element from the following group: Cu, Pb, Zn, Ag, Mo = $ 3.65/sample x 49 samples	178.85
Silts: Uranium @ $ 2.50 x 49 samples	122.50
Barium @ $ 2.50 x 26 samples	65.00
Rock Samples: W, Sn and F are all $ 2.50 each $ 7.50/sample x 17 samples	127.50
Sample Preparation: $ 1.25/sample x 17 samples	21.25
Water Samples: 60¢ per element + $ 1.00 for pH Cu, Pb, Zn, U, F, pH = $ 4.00/sample x 32 samples	128.00
TOTAL COSTS	$ 7,391.03

Longitude 136° 20' West

Lat. 66° 55' North

Longitude 135° 55' West

Lat. 66° 55' North

N

PROPOSED ROUTE OF DEMPSTER HWY.

Cornwall Creek.

SW-40
SW-39
SW-38
SW-37
R-37
SW-36
SW-35
R-34A
SW-34
SW-33
SW-32
SW-31
SW-29
SW-30
R-544
R-543
R-542
SW-533
R-540, 541
R-539
SW-532
Barite vein
SW-531
R-538
SW-45
SW-44
P-2
R-537
SW-530
TOUCHÉ CLAIMS
85°
Argillaceous Limestone
R-536
SW-529
SW-528
R-534, 535
SW-52
SW-51
SW-54
R-532
R-533
SW-50
SW-53
R-531
R-530
R-528, 529
SW-527
SW-49
R-525
SW-47
SW-48
SW-526
SW-525
SW-46

LEGEND

- ● S,W-527 : Sediment & Water samples
- ▲ R-531 : Rock sample
- ◉ P-2 : Soil sample
- ◌ : Outcrop

090925

MATTAGAMI LAKE EXPLORATION LIMITED.
WESTERN FIELD OFFICE
EDMONTON, ALBERTA.

YUKON URANIUM PROJECT
TOUCHÉ CLAIMS
MAP I
GEOLOGY & SAMPLE LOCATIONS.

DRAWN BY: D.R. BULL.

DATE: MAY 1981

SCALE of MILES
0 0.5 1.0 1.5 miles