

6017

JOE CLAIMS
Wallace Creek, B. C.
GEOLOGY, GEOCHEMISTRY
Greenwood Mining Division
NTS: 82/E/2

R.V. Longe #6017x

Oct 1976

82E/2W

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

NO. 6017

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ATTACHMENTS

DESCRIPTION OF CLAIMS

SAMPLE RESULTS

COST STATEMENT

STATEMENTS OF QUALIFICATIONS

S U M M A R Y

A 10-day programme of geochemical soil sampling and geological mapping was carried out on the JOE claim in the Greenwood Mining Division by a two-person crew during June 1976.

Geochemical soil samples collected on lines spaced 200 m apart were analyzed for copper and zinc. A minor anomaly was detected but did not warrant retention of the claims. Geological mapping indicated a belt of sharpstone conglomerate, quartzite, and limestone belonging to the Brooklyn formation overlying metamorphic rocks of the Knob Hill Group.

1. INTRODUCTION

Work on the JOE claims during 1976 was to investigate the source of a geochemical soil anomaly in copper and zinc reported in B.C. Dept. of Mines Assessment Report 2925.

The work described in this report was performed by R. G. Wilson and N.J. Wilson under the supervision of the writer. Statements of qualifications are attached.

2. LOCATION DATA

The property lies in southern British Columbia five air miles northwest of the city of Greenwood, and on the south side of Wallace Creek, in the Greenwood Mining Division (See Figure 1).

N.T.S. 82/E/2

Latitude;Longitude (of centre of claim block)

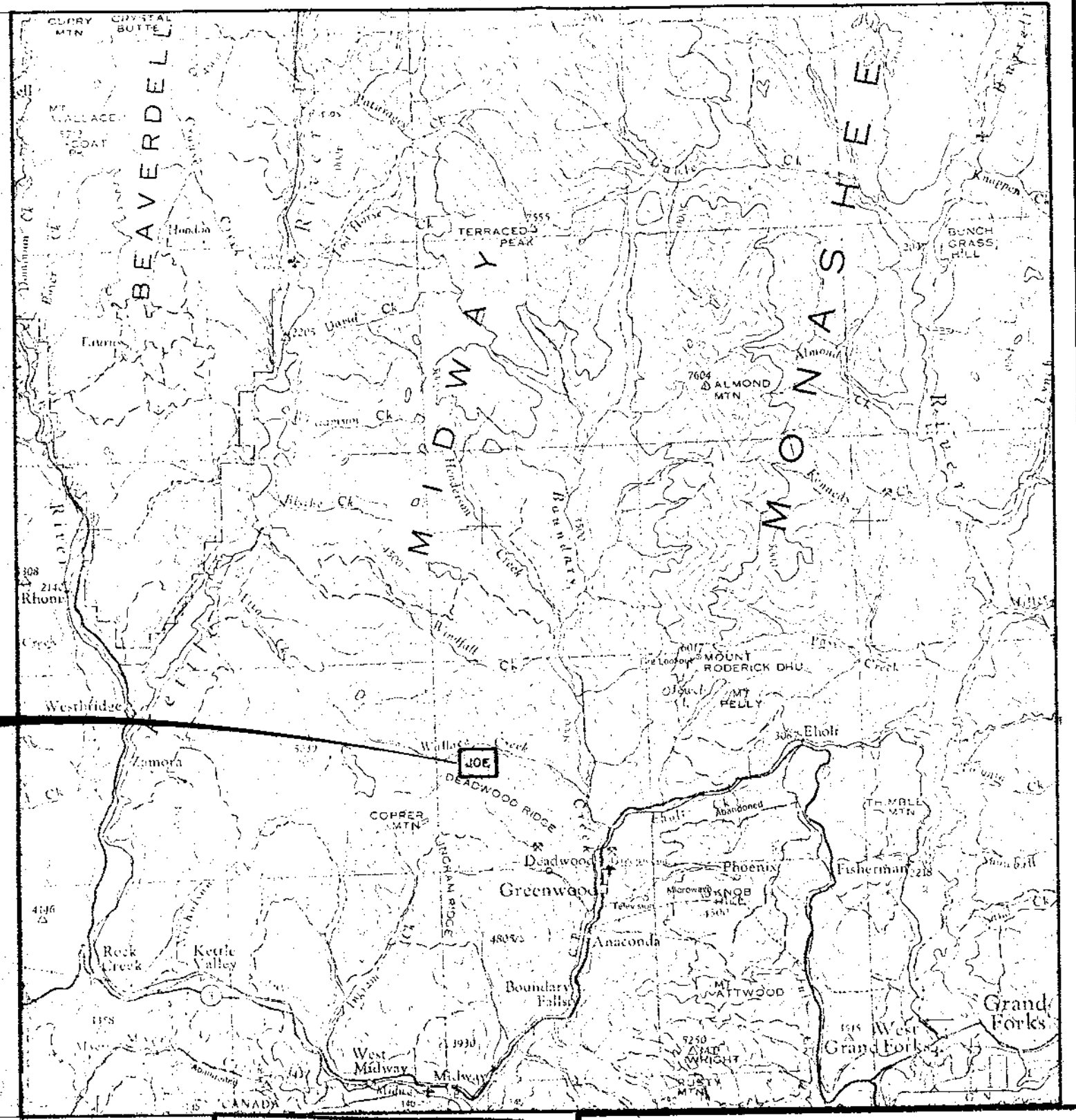
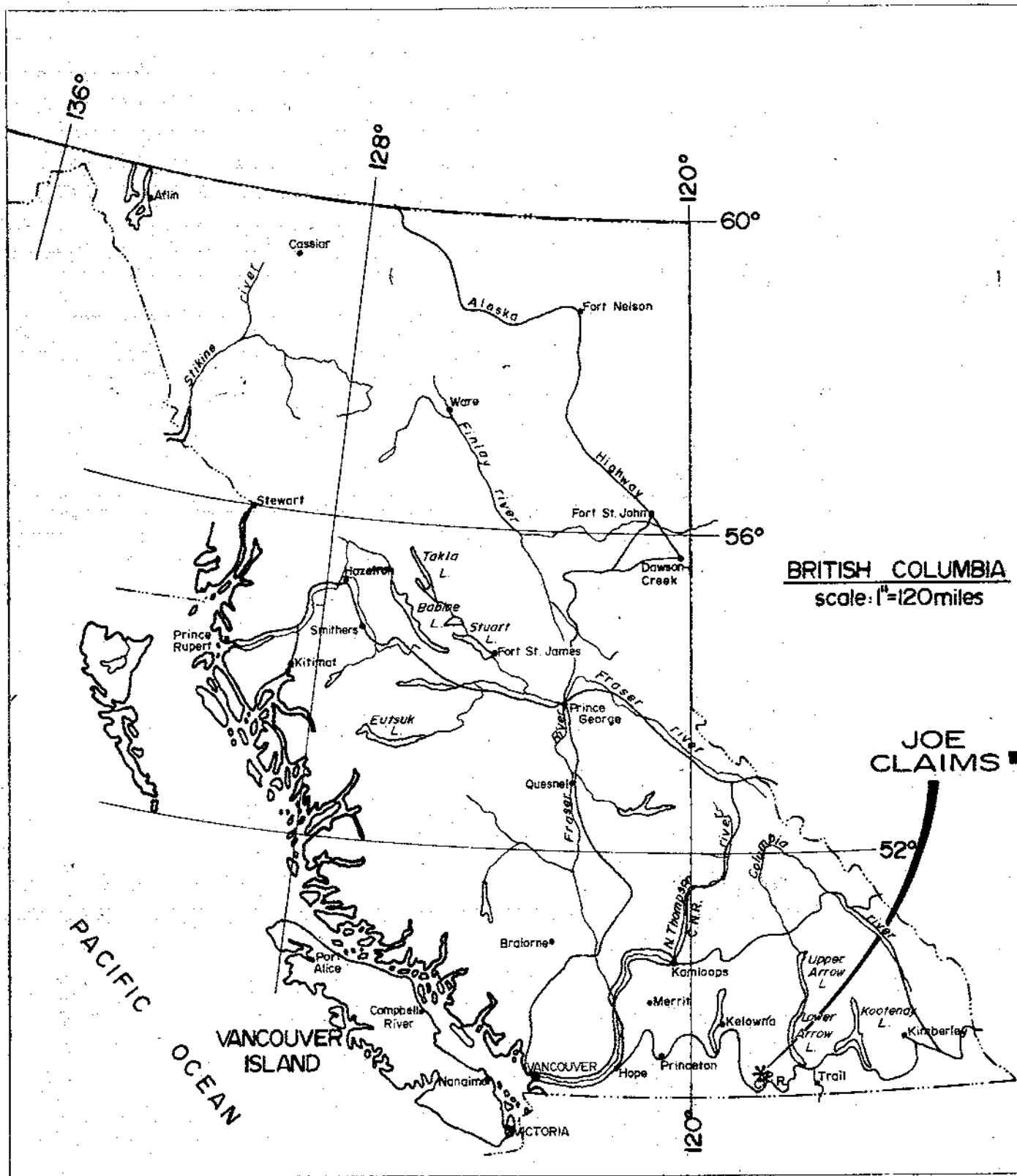
49°09' N ; 118°45' W

U.T.M. (of centre of claim block)

5445120mN ; 372100mE

Elevation (of centre of claim block)

4430 ft.



MINERAL RESOURCES BRANCH
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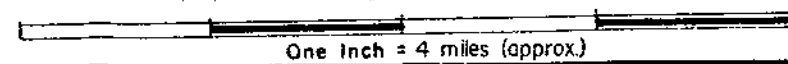
RIO TINTO CANADIAN EXPLORATION LTD.

JOE CLAIMS

FIGURE I.

LOCATION MAP

SCALE 1:250,000



SEPT. 1976

R & NW/Altair

DWG. L. 6409

3. TOPOGRAPHY (Figure 2)

Relief ranges from 3,000 ft. in the valleys to the north and east of the property to an elevation of 5,000 ft. in the southwest corner of the claim block. Much of the higher ground, especially the south-facing slopes are covered with scattered pine trees and open grass. The greater part of the property is covered by forest consisting predominantly of cedar, much of it with thick undergrowth.

4. ACCESS

Access is by gravel road from Greenwood past the Motherlode pit and then along a re-opened logging road which runs parallel to the north fork of Motherlode Creek to the top of an unnamed hill lying south of the south boundary of the claims. Alternatively the property maybe reached on foot through thick undergrowth from Wallace Creek.

5. CLAIMS (Figure 2)

The JOE claim consist of 12 units. Due date, after recording of the work described in this report will be September 9, 1977.

6. OWNERSHIP

The claims were staked by Rio Tinto Canadian Exploration Limited and incorporated into an agreement with Mr. Jim Forshaw and Mr. Val Luznar both of Box 67, Greenwood, B. C. In accordance with the terms of the agreement the JOE claims have been transferred to Messrs. Forshaw and Luznar.

7. HISTORY OF PROPERTY AND PREVIOUS WORK

Apart from a number of very old trenches which were probably excavated at the beginning of the century, the only work known to have been carried out on the property is soil geochemistry and magnetometer readings by the Orequest Syndicate in 1969. Orequest's results are reported in B.C. Department of Mines Assessment Report 2925. Both geochemical sampling and magnetometer readings were carried out at 200 ft intervals along claim lines. Magnetometry did not detect any feature of interest. On one claim line, soil geochemical values were anomalous in copper and zinc for a distance of approximately 2,000 feet.

8. REGIONAL GEOLOGY

In the Greenwood area, metamorphosed Permian volcanic rocks of the Knob Hill group form a basement for the Triassic Anarchist group which consists of Sharpstone conglomerate (a desert outwash deposit) overlain by Brooklyn limestone. This sequence of sediments is intruded by granitic batholiths of Cretaceous age. Tertiary dykes and sills are numerous and associated Tertiary volcanic rocks form a thin cover over much of the area.

All significant base metal deposits in the Greenwood area occur at or near the base of the Brooklyn limestone.

9. LOCAL GEOLOGY (Figure 3)

Mapping of the JOE claims in 1976 indicated units of Sharpstone conglomerate, a calcareous quartzite, and a quartzitic limestone, all of the Brooklyn Formation, overlying metamorphic rocks of the Knob Hill Group. The general trend of the Brooklyn rocks is north-east, south-west, dipping steeply to the east.

Trace amounts of chalcopyrite were found in the calcareous quartzites and limestones at the North end of the JOE claims base line.

10. RESULTS OF GEOCHEMICAL SAMPLING

Samples were collected at 25 metre intervals on lines 00,400 and 800 m NE and at 50 metre intervals on lines 200,600 and 1000 m NE. A total of 156 samples were taken, all from the 'B' horizon at depths ranging between 15 and 20 centimetres.

Copper

Values in copper range from 3 ppm to a high of 168 ppm with a mean of 18.9 ppm and a standard deviation of 18.5 ppm. A minor anomaly was detected on line 1000 m NE.

Zinc

Values in zinc range from 6 ppm to a high of 650 ppm with a mean of 91 ppm and a standard deviation of 85 ppm. A minor anomaly was detected on line 800 m NE .

Silver

44 samples were analyzed for silver but the results were not considered useful and were not plotted.

11. DISCUSSION

The trace amounts of chalcopyrite seen in the quartzites and limestones of the JOE claims can be considered adequate explanation for most of the slightly anomalous values detected in the geochemical sampling. The anomaly at the S.E. end of line 800 deserves investigation but does not warrant continuation of the option.

12. CONCLUSIONS

Rocks of the Knob Hill metamorphic complex are overlain by Sharpstone conglomerate. This is overlain in turn by quartzitic and calcareous units of the Brooklyn limestone.

Geochemical soil sampling detected a minor anomaly.

13. RECOMMENDATIONS

- (1) That the claims be returned to J. Forshaw and V. Luznar;
- (2) That during 1977 one day be spent investigating the geochemical anomaly on line 800.



R. V. Longe

RVL:rl
Vancouver Office
14 October 1976

A T T A C H M E N T S

DESCRIPTION OF CLAIM

The JOE mineral claim (Tag. No. 26072; Record No. 119)
situated south of Wallace Creek
approximately 5 miles NW of the city of
Greenwood
in the Greenwood Mining Division
consisting of 12 units
- (3 to the south and 4 to the east)
located by J. Forshaw (Free Miners
Licence No. 95047)
on August 15, 1975.
Due Date: September 09, 1976

C. 12ccc
June 5, 1976

RIO TINTO CANADIAN EXPLORATION LIMITED LABORATORY REPORT

EXTRN 66

ANDLZ

SAMPLE TYPE:

SOIL & STREAM SEDIMENTS

ROCK

VEGETATION

WATER

PROJECT 8620

DATE REPORTED 28 June '76

SIZE FRACTION -80 mesh

EXTRACTION HNO₃-HClO₄

ANALYTICAL METHOD A.A.

ANALYST (s) E.F.P.

STATISTICAL SUMMARY

(Values for \bar{x} and σ in p.p.m.)

DISTRIBUTION

LOG NORMAL

NORMAL

ELEMENT	Pb	Zn						
NO SAMPLES	60	60						
MEAN, \bar{x}								
STD. DEV. σ								
$\bar{x} + 2\sigma$								

COMMENTS: 0.6 g.

RIO TINTO CANADIAN EXPLORATION LIMITED

LABORATORY REPORT

PARTS PER MILLION

LAB NO	SAMPLE NO (NMBR)		Co	Zn								COMMENTS
1	7614089		8	75								
2	078		8	57								
3	080		4	32								
4	082		38	260								
5	084		11	34								
6	086		16	40								
7	088		21	60								
8	090		6	18								
9	092		11	36								
10	094		15	36								
1	7614096		13	85								
2	STD 2		24	195								
3	7614201		11	210								
4	202		10	65								
5	203		10	125								
6	204		9	59								
7	205		11	76								
8	206		15	82								
9	207		15	44								
20	208		17	150								
1	209		25	47								
2	BLANK		ND	ND								
3	210		38	240								
4	211		25	64								
5	212		18	275								
6	213		28	42								
7	214		215	850								WET SAMPLE
8	215		25	46								
9	217		27	87								
20	7614219A		13	75								
1	7614219A		103	78								WET SAMPLE
2	7614221		16	52								
3	222		56	200								
4	222		10	57								
5	224		26	146								
6	225		4	24								
7	226		20	50								
8	7614227A		9	46								
9	7614227B		10	265								
10	7614227		8	36								

RIO TINTO CANADIAN EXPLORATION LIMITED

LABORATORY REPORT

PARTS PER MILLION

LAB NO	SAMPLE NO (NMBR)		Cu	Zn							COMMENTS
1	7614236		17	55							
2	231		5	38							
3	232		13	70							
4	234		13	42							
5	235		14	175							
6	236		14	50							
7	240		11	57							
8	241		13	235							
9	243		25	205							
50	244		13	80							
1	245		16	185							
2	246		6	54							
3	STD 3		32	43							
4	247		87	535							
5	249		53	650							
6	251		48	97							
7	253		7	87							
8	255		13	60							
9	257		24	73							
60	259		35	96							
1	261		23	56							
2	263		17	45							
3	BLANK		ND	ND							
4	7614265		17	49							
5	7614688		20	50							
6	7614203		9	117							
7	7614210		37	235							
8	7614219A		13	72							
9	7614227A		9	45							
70	7614235		15	173							
1	7614246		6	52							
2	7614265		17	49							
3											
4											
5											
6											
7											
8											
9											
0											

JUN X 5 1976

OFFICE COPY

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LABORATORY REPORT

EXTRN AANDLZ

SAMPLE TYPE:

 SOIL & STREAM SEDIMENTS ROCK VEGETATION WATER _____PROJECT 8620DATE REPORTED 30 June '76SIZE FRACTION -80 meshEXTRACTION HNO₃ - HClO₄ANALYTICAL METHOD A.A.ANALYST (s) E.F.P.

STATISTICAL SUMMARY

(Values for \bar{x} and σ in p.p.m.)

DISTRIBUTION

 LOG NORMAL NORMAL

ELEMENT	Cu	Zn						
Nº SAMPLES	75	75						
MEAN. \bar{X}								
STD. DEV. σ								
$\bar{X} + 2\sigma$								

COMMENTS: C. G. g.REPORT Nº 76-19PAGE 1 of 4

RIO TINTO CANADIAN EXPLORATION LIMITED

LABORATORY REPORT

PARTS PER MILLION

LAB NO.	SAMPLE NO. (NMBR)		Cu	Zn							COMMENTS
1	7614210		34	165							
2	252		15	92							
3	254		28	63							
4	256		9	37							
5	258		5	46							
6	260		19	48							
7	262		72	166							
8	272		23	320							
9	7614		27	27							
10	7614274		16	103							
1	281		26	62							
2	282		27	27							
3	283		17	32							
4	STD 3		32	48							
5	284		27	27							
6	285		18	47							
7	286		27	27							
8	287		19	60							
9	288		27	27							
20	289		48	76							
1	290		27	27							
2	291		168	155							
3	292		27	27							
4	BLANK		ND	ND							
5	293		18	103							
6	294		27	27							
7	295		17	86							
8	298		13	117							
9	299		27	27							
30	7614		27	27							
1	301		27	27							
2	302		27	27							
3	306		61	128							
4	307		27	27							
5	308		14	76							
6	309		27	27							
7	310		19	76							
8	311		27	27							
9	312		43	166							
40	7614		27	27							

RIO TINTO CANADIAN EXPLORATION LIMITED
LABORATORY REPORT

PARTS PER MILLION

LAB NO.	SAMPLE NO. (NMBR)	Cu	Zn						COMMENTS
1	7614	25	140						
2	7614314	25	140						
3	315	52	112						
4	316	50	134						
5	317	54	180						
6	318	10	64						
7	319	53	110						
8	321	36	215						
9	322	57	88						
50	323	57	88						
1	324	32	75						
2	325	32	75						
3	327	19	85						
4	328	18	165						
5	STD 1	12	790						
6	329	14	73						
7	330	11	38						
8	331	9	57						
9	333	17	118						
60	7614335 A	25	96						
1	7614335 B	7	66						
2	7614336	33	300						
3	337	10	62						
4	338	15	108						
5	BLANK	ND	ND						
6	339	9	68						
7	340	13	50						
8	341	5	29						
9	342	3	6						
70	343	10	32						
1	344	5	19						
2	7614345	6	34						
3	7614345 B	54	60						FILT SAMPLE
4	7614346	11	58						
5	347	7	40						
6	348	13	50						
7	349	3	15						
8	350	5	60						
9	7614351	9	40						
70	7614377	10	100						

RIO TINTO CANADIAN EXPLORATION LIMITED

LABORATORY REPORT

PARTS PER MILLION

LAB NO.	SAMPLE NO. (NMBR)		Cu	Zn					COMMENTS
81	7614320		20	35					
2	7614321		16	42					
3	7614313		8	64					
4	7614322		11	36					
5	7614333		17	120					
6	7614343		10	31					
7	7614351		9	45					
8									
9									
90									
1									
2									
3									
4									
5									
6									
7									
8									
9									
100									
1									
2									
3									
4									
5									
6									
7									
8									
9									
110									
1									
2									
3									
4									
5									
6									
7									
8									
9									
120									

RIO TINTO CANADIAN EXPLORATION LIMITED

LABORATORY REPORT

PARTS PER MILLION

LAB NO	SAMPLE NO. (NMBR)		Ag	Cu	Zn						COMMENTS
1	76140		0.1	14	78						
2	40		0.1	29	92						
3	7614038	✓	0.1	14	78						
4	40		0.1	29	92						
5	41		0.1	76	230						
6	42		0.15	13	88						
7	44		ND	3	14						
8	46	✓	0.1	9	46						
9	48	✓	ND	8	104						
10	50	✓	ND	6	29						
1	52A		0.1	8	16						
2	52B		0.1	26	230						
3	52B		0.1	15	35						GLT SAMPLE
4	54		ND	6	14						
5	55	✓	ND	7	32						
6	56		0.1	10	46						
7	57	✓	0.1	8	62						
8	58		ND	26	60						
9	59		ND	7	137						
20	60		ND	16	54						
1	61		0.1	18	26						
2	ALTAIR		ND	ND	ND						
3	62		ND	12	47						
4	63	✓	0.1	7	52						
5	64	✓	ND	6	60						
6	65		ND	14	66						
7	66		ND	7	26						
8	67		ND	11	85						
9	68		ND	7	38						
30	69		ND	15	37						
1	70		ND	6	30						
2	71		ND	6	36						
3	72		0.1	14	86						
4	73	✓	0.1	13	54						
5	74		ND	10	73						
6	75		ND	15	32						
7	76		ND	16	125						
8	77		ND	5	39						
9	78		ND	13	125						
40	7614079		ND	6	46						

RIO TINTO CANADIAN EXPLORATION LIMITED

LABORATORY REPORT

PARTS PER MILLION

LAB NO	SAMPLE NO (NMBR)	Ag	Cu	Zn	Pb	COMMENTS
41	7614181	ND	12	33		
2	83	ND	6	22		
3	85	ND	10	50		
4	91	0.1	17	105		
5	93	ND	22	125		
6	95	ND	11	116		
7	7614097	0.1	11	120		
8	0.37		12	38	1	TREE SAMPLE
9	STD 3	0.1	33	52		
50	7614011	0.1	14	12		
1	48	ND	8	103		
2	56	0.1	10	44		
3	68	0.1	7	36		
4	79	ND	7	45		
5	7614085	ND	11	56		
6						
7						
8						
9						
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						

COST STATEMENT

B. C. FORSHAW OPTION

GEOLOGICAL & GEOCHEMICAL SURVEYS

MAY 17 - JUNE 27, 1976

SALARIES & WAGES

R. WILSON Jun 3,7,10-11,18-20,23	8 days @ \$37/day	\$296.00	
N. WILSON "	8 days @ \$29/day	232.00	
R. LONGE Jun 20, 23, 24	3 days @ \$84/day	<u>252.00</u>	\$ 780.00

EMPLOYEE BENEFITS

156.00

RENTAL EQUIPMENT

Redhawk 4 x 4 Truck	9 days @ \$18/day		162.00
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RIO TINTO CAMP EQUIPMENT

19 man days @ \$3.00/man day			57.00
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RIO TINTO GEOCHEMICAL ANALYSIS

112 soil samples @ \$2.85 each		\$319.20	
44 soil samples @ \$3.45 each		151.00	
Freight		<u>15.50</u>	485.70

LINE CUTTING

Cutting & Flagging 3,000 ft of line			125.00
-------------------------------------	--	--	--------

ROAD CLEARING

Re-opening 4,000 ft of disused road			125.00
-------------------------------------	--	--	--------

FOOD & ACCOMMODATION*

1/4 of total invoices for property (\$1,856.27)			484.07
---	--	--	--------

SUPPLIES*

1/4 of total invoices for property (\$ 709.38)			177.35
--	--	--	--------

CONSULTANT FEES*

1/4 of total invoices for property (\$ 106.00)			26.50
--	--	--	-------

FUEL

1/4 of total invoices for property (\$ 137.33)			<u>34.33</u>
--	--	--	--------------

TOTAL			\$ 2,612.95
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* Total invoices refer to work on
PEN (20 units), AB (16 units), and
JOE (12 units).

STATEMENT OF QUALIFICATIONS

R. V. Longe

ACADEMIC

1961 B.A. Natural Sciences Tripos, Cambridge University
(Geological Sciences)
1965 M.Sc. Geology McGill University

PRACTICAL

1969-present Rio Tinto Canadian Exploration Ltd. Vancouver BC
Geologist involved in
various aspects of mineral
exploration in B.C., Yukon,
and Alaska.

1967 Amax Exploration
(summer) Geological mapping of
Guichon Batholith, B. C.

1965-1966 Selco Exploration Ltd.,
(summers) Geological Mapping of Archean
Greenstone belt south of
James Bay, Ontario

1964 West African Selection Trust
Diamond exploration in
Ivory Coast and Mali,
West Africa

1962-1963 Consolidated African Selection Trust Ltd.,
Mine Geologist,
Akwatia, Ghana

1961 Serra Leone Selection Trust Ltd.,
Geologist, reserve
development department
Yangema Mine, Sierra Leone

STATEMENT OF QUALIFICATIONS:

Norma Joan Wilson (née Pawlowski)

Education:

BSc. (Biology) 1974 University of British Columbia
BSc. (Geology) 1976 University of British Columbia

Experience:

1976 Rio Tinto Canadian Exploration Ltd (temporary)
- Mapping and geochemical sampling,
south and central B. C.

1975 Cominco Limited (temporary)
- Logging core and mapping on the
Bathurst Norsemines property, N.W.T.

STATEMENT OF QUALIFICATIONS:

Robert George Wilson

Education:

BSc. (Geology) 1976 University of British Columbia

Experience:

1976 Rio Tinto Canadian Exploration Limited

- Mapping and geochemical sampling
in south and central B.C.

1975 Cominco Limited (temporary)

- Mapping and prospecting in
carbonates, MacKenzie Mountains, N.W.T.

1974 Cominco Limited (temporary)

- Mapping and prospecting in
carbonates, MacKenzie Mountains, N.W.T.

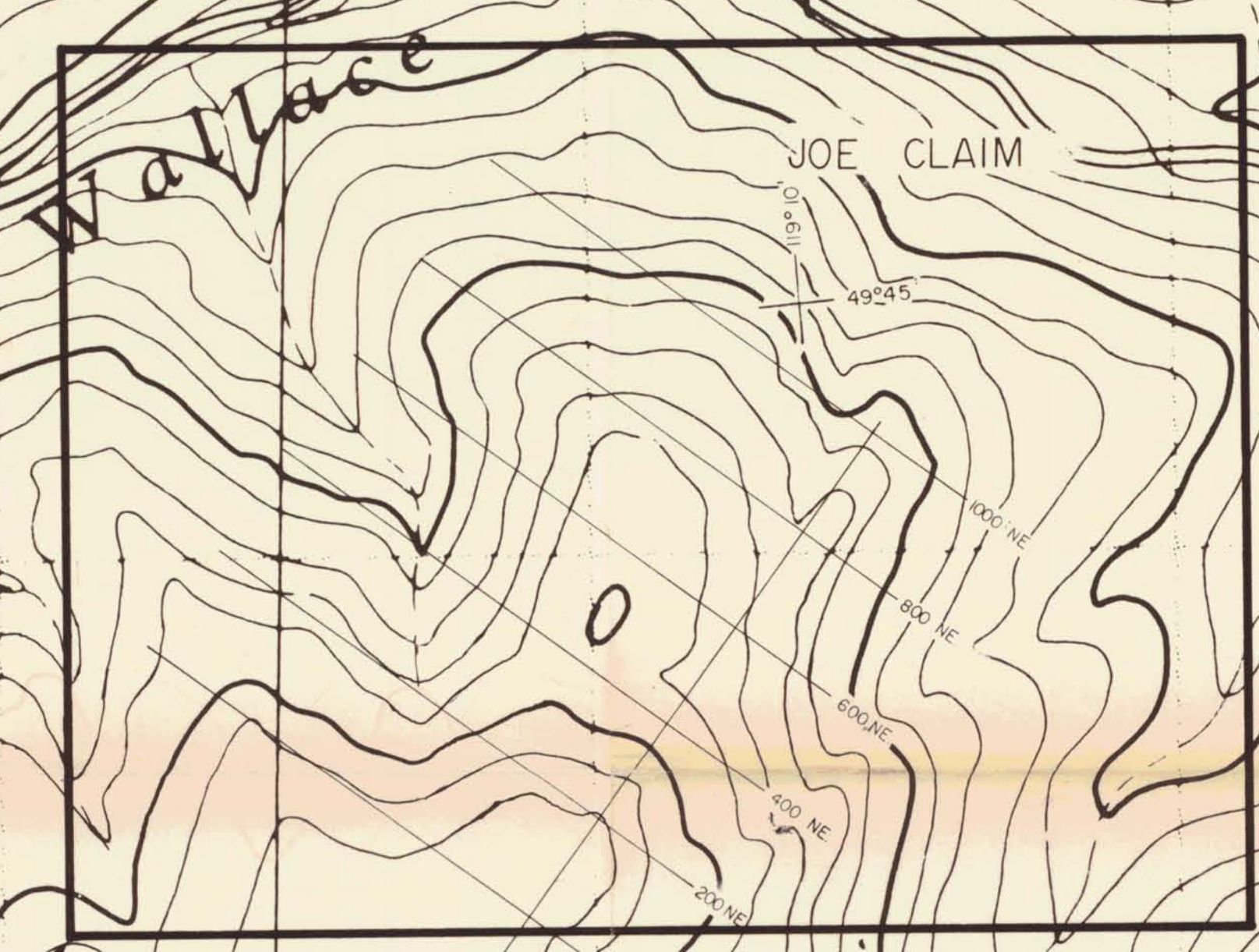
1973 Texas Gulf Incorporated (temporary)

- Sampling and prospecting in
south and central B.C. and Yukon

67 68 69 70 71 72 373000m E

4500

3500



Wallace

JOE CLAIM

5000

4500 L.C.P.

DEADWOOD

610 12311 1851 655



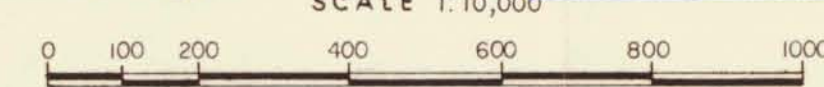
6017

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N.T.S. 82-E-2

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6017
MAP NO. #1

SCALE 1:10,000



RIO TINTO CANADIAN EXPLORATION LIMITED

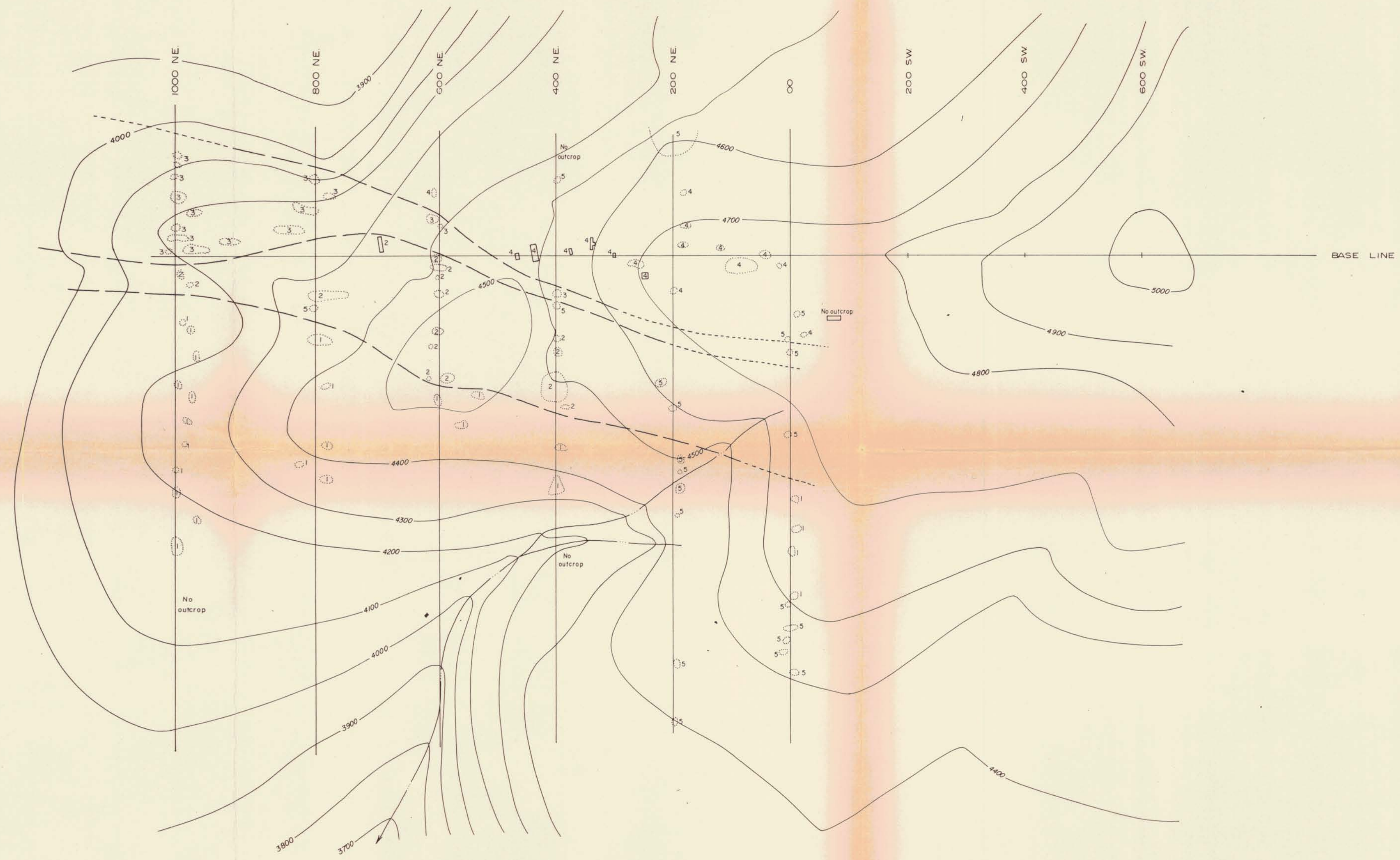
FORSHAW OPTION

JOE CLAIM
TOPOGRAPHY, CLAIM BOUNDARY
& GRID LOCATION

SEPT. 1976 R & NW / Altair DWG. 7395

FIGURE 2

6017



LEGEND

- Creeks
- Outcrop
- Trench
- Shaft
- Approximate contact
- Assumed contact

LITHOLOGIES :

- 5. Recent volcanic rocks (may include intrusives)
- 4. Limestone; grey. Locally contains aeolian quartz grains
- 3. Quartzite; pale green, with limy matrix
- 2. Sharpstone conglomerate; chert fragments in unsorted matrix
- 1. Metasediments and metavolcanics; probably Knob Hill Formation

CONTOUR INTERVAL 100 FEET
(Elevation by pocket altimeter)

N.T.S. 82-E-2

6017

SCALE 1:5000



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6017
MAP NO. #2

FIGURE 3

RIO TINTO CANADIAN EXPLORATION LIMITED

FORSHAW OPTION

JOE CLAIMS
GEOLOGY

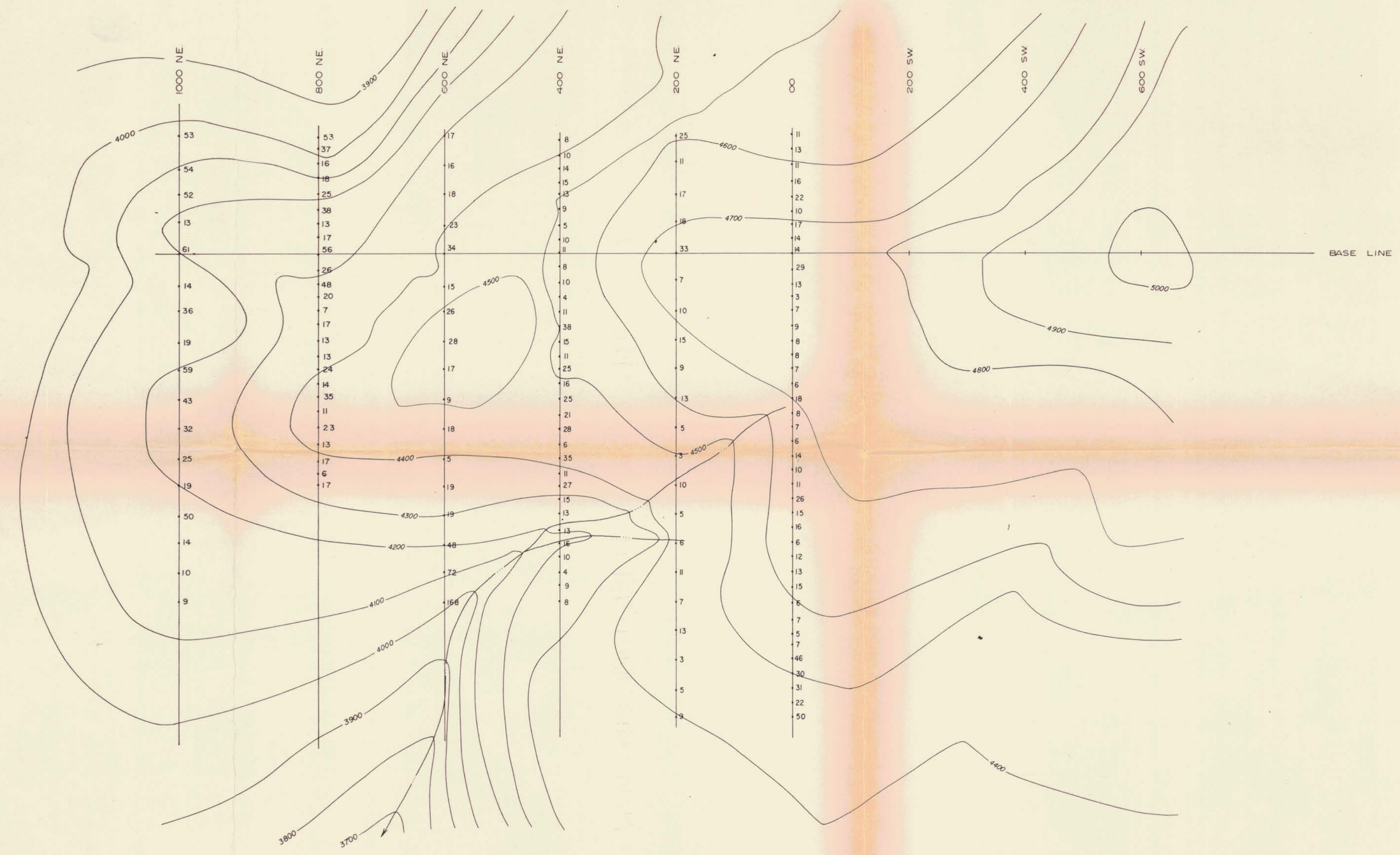
SEPT. 1976

N & RW/Altair

DWG. G. 7397

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MINERAL RESOURCES BRANCH
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NO. 6017
MAP NO. #3



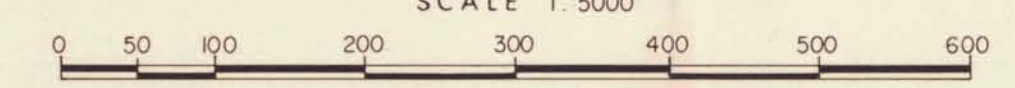
LEGEND

Creeks
p.p.m. copper in soils

CONTOUR INTERVAL 100 FEET
(Elevation by pocket altimeter)

N.T.S. 82-E-2

SCALE 1:5000



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6017
MAP NO. #3

FIGURE 4

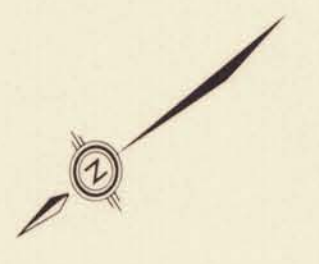
RIO TINTO CANADIAN EXPLORATION LIMITED

FORSHAW OPTION

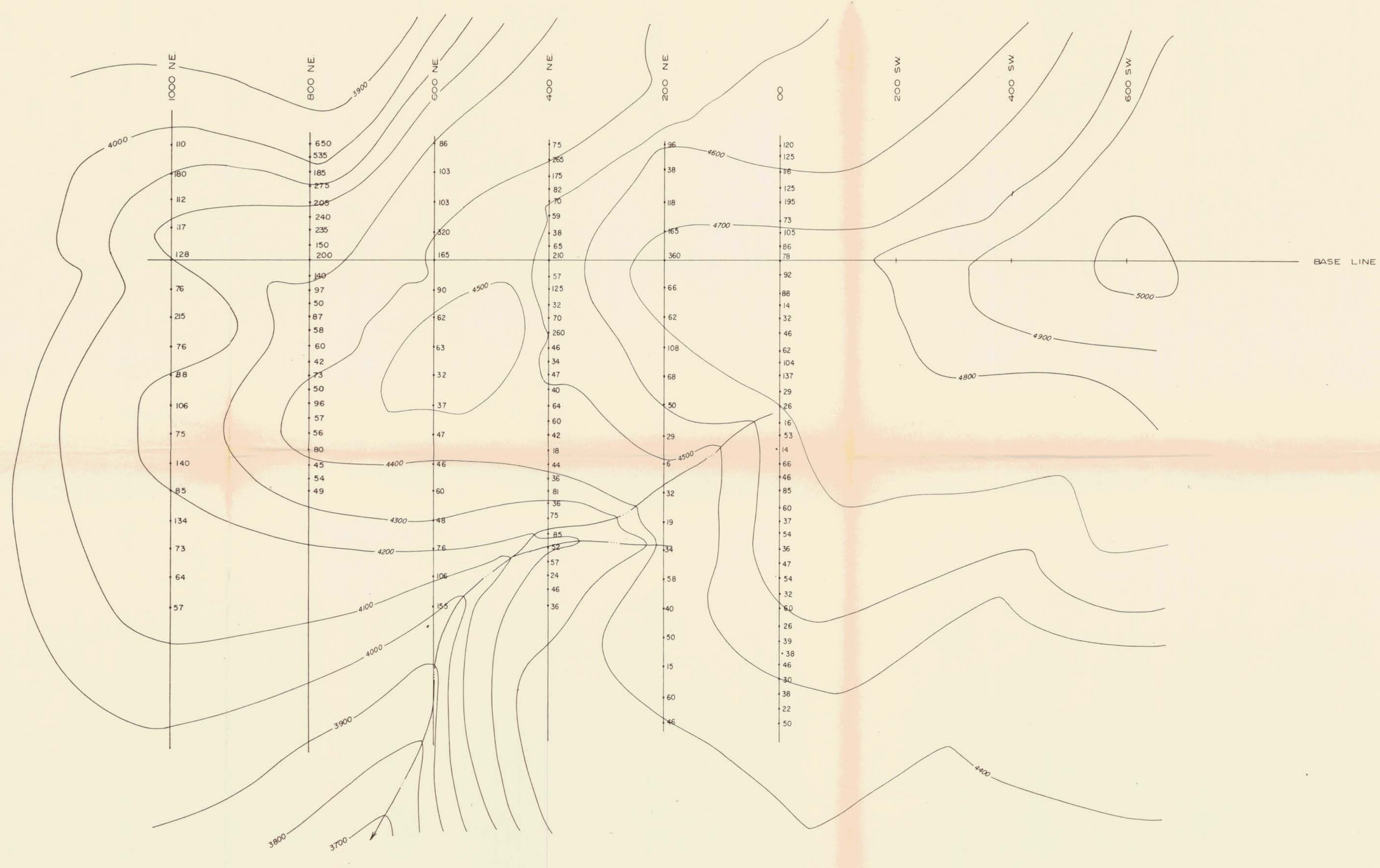
JOE CLAIMS

COPPER VALUES IN SOIL SAMPLES



SEPT 1976 R & NW / Altair DWG. G.C. 7398



6017



LEGEND

 Creeks
 p.p.m. zinc in soils

CONTOUR INTERVAL 100 FEET
 (Elevation by pocket altimeter)

N.T.S. 82-E-2

SCALE 1" = 500'



MINERAL RESOURCES BRANCH
 ASSESSMENT REPORT
 NO. 6017
 MAP NO. #4

FIGURE 5

RIO TINTO CANADIAN EXPLORATION LIMITED

FORSHAW OPTION

JOE CLAIMS

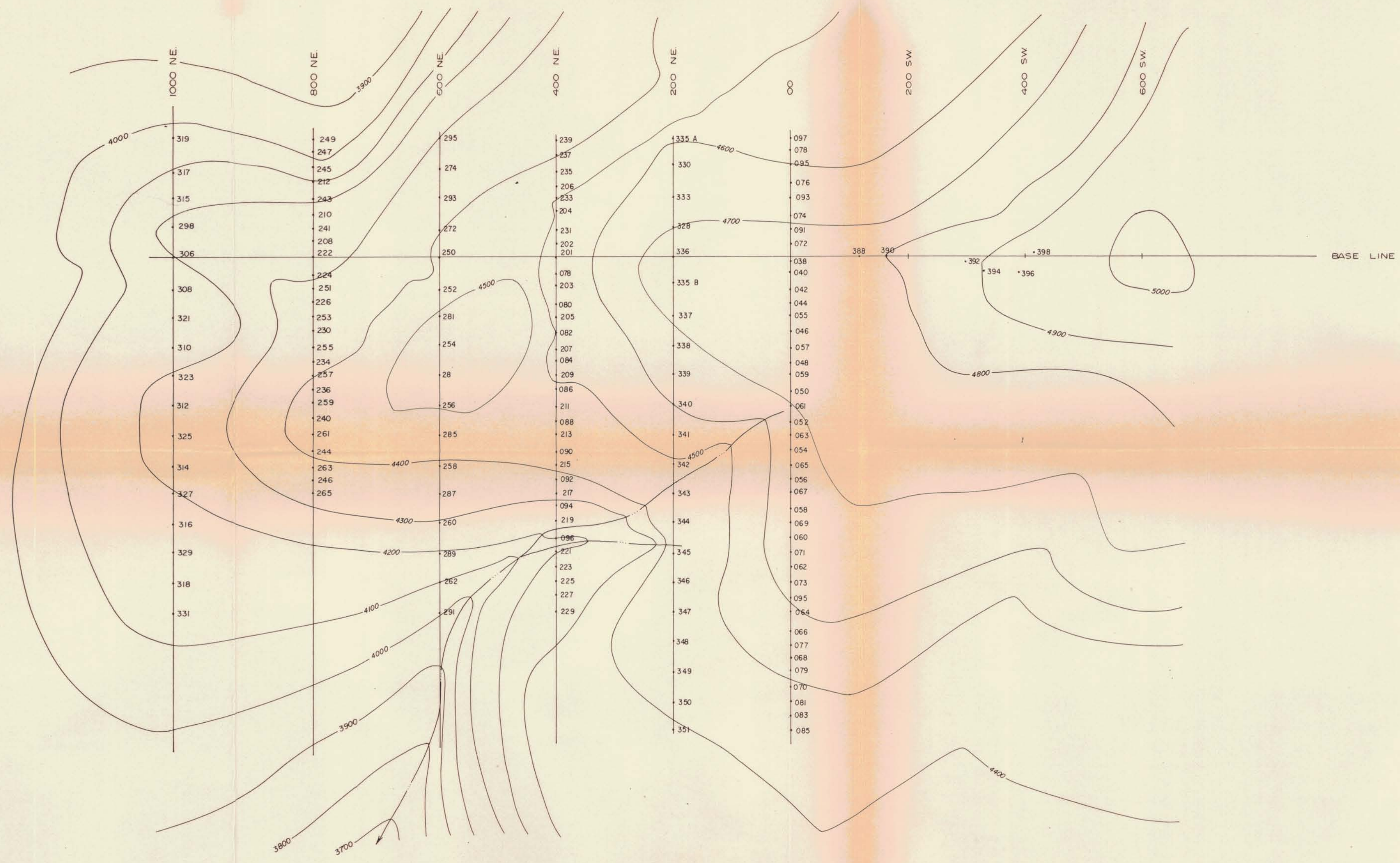
ZINC VALUES IN SOIL SAMPLES

SEPT. 1976

R B NW / Altair

DWG. G.C. 7399

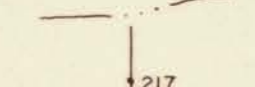
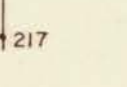
6017



MINERAL RESOURCES BRANCH
 ASSESSMENT REPORT
 NO. 6017
 MAP NO. #5

FIGURE 6

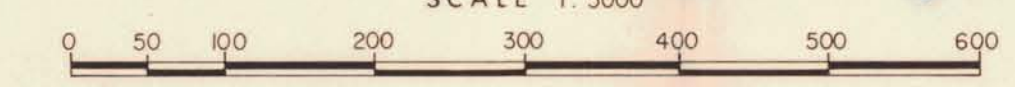
LEGEND

Creeks

 Sample and station location


CONTOUR INTERVAL 100 FEET
 (Elevation by pocket altimeter)

N.T.S 82-E-2

SCALE 1:5000



6017

RIO TINTO CANADIAN EXPLORATION LIMITED

FORSHAW OPTION

JOE CLAIMS
 SAMPLE & STATION LOCATIONS

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