'80-#459-# 8241

OUTCROP GEOLOGY REPORT

PRIME 1 CLAIM
SIMILKAMEEN MINING DIVISION

92H-16W

49°45'N 120°28'W

ON BEHALF OF

PIPER PETROLEUMS LTD.

by

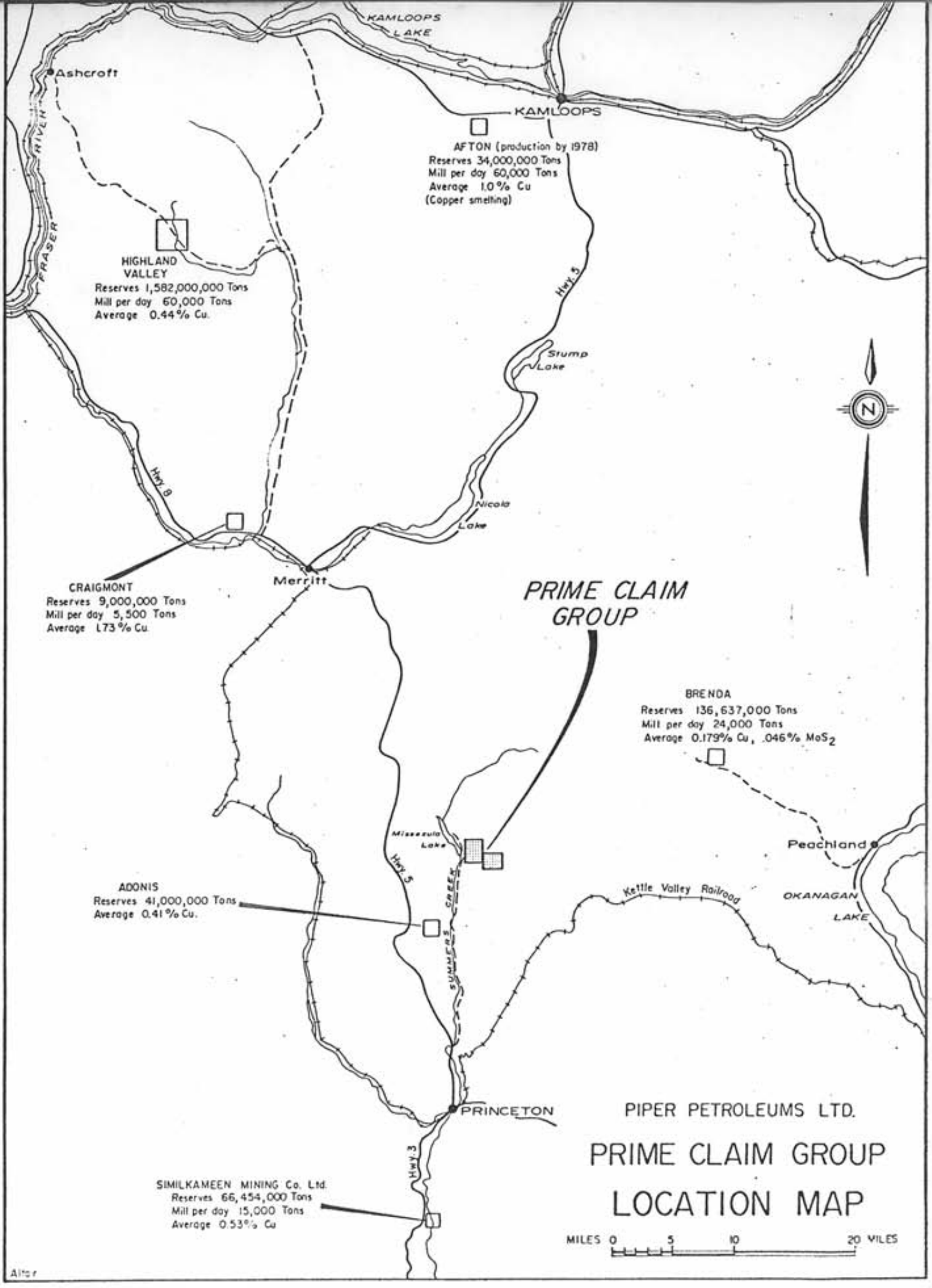
G. C. GUTRATH, P. ENG.

ATLED EXPLORATION MANAGEMENT LTD.

May, 1980

Name	Units	Record Number	Expiry Date
Prime 1	8	323 (5)	May 20, 1980

TABLE OF CONTENTS


KAMLOOPS LAKE
Ashcroft
FRASER RIVER
KAMLOOPS
AFTON (production by 1978)
Reserves 34,000,000 Tons
Mill per day 60,000 Tons
Average 1.0 % Cu
(Copper smelting)
HIGHLAND VALLEY
Reserves 1,582,000,000 Tons
Mill per day 60,000 Tons
Average 0.44 % Cu.
Hwy 5
Stump Lake
N
Hwy 8
Nicola Lake
Merritt
CRAIGMONT
Reserves 9,000,000 Tons
Mill per day 5,500 Tons
Average 1.73 % Cu.
PRIME CLAIM GROUP
BRENDA
Reserves 136,637,000 Tons
Mill per day 24,000 Tons
Average 0.179% Cu, .046% MoS_2
Missezula Lake
Hwy 5
Peachland
ADONIS
Reserves 41,000,000 Tons
Average 0.41 % Cu.
SUMMERS CREEK
Kettle Valley Railroad
OKANAGAN LAKE
PRINCETON
Hwy 3
SIMILKAMEEN MINING Co. Ltd.
Reserves 66,454,000 Tons
Mill per day 15,000 Tons
Average 0.53% Cu
PIPER PETROLEUMS LTD.
PRIME CLAIM GROUP
LOCATION MAP
MILES 0 5 10 20 MILES

OUTCROP GEOLOGY REPORT

PRIME CLAIM GROUP

SIMILKAMEEN MINING DIVISION

INTRODUCTION

The outcrop geology was mapped in 1980 and utilizing a grid tape and compass traverse grid. This traverse grid was surveyed from the base line located on the Prime Claim 47(5).

PERSONNEL

G. Gutrath, P. Eng., Geologist
(overall supervision, geological mapping and report).

D. Gutrath, assistant

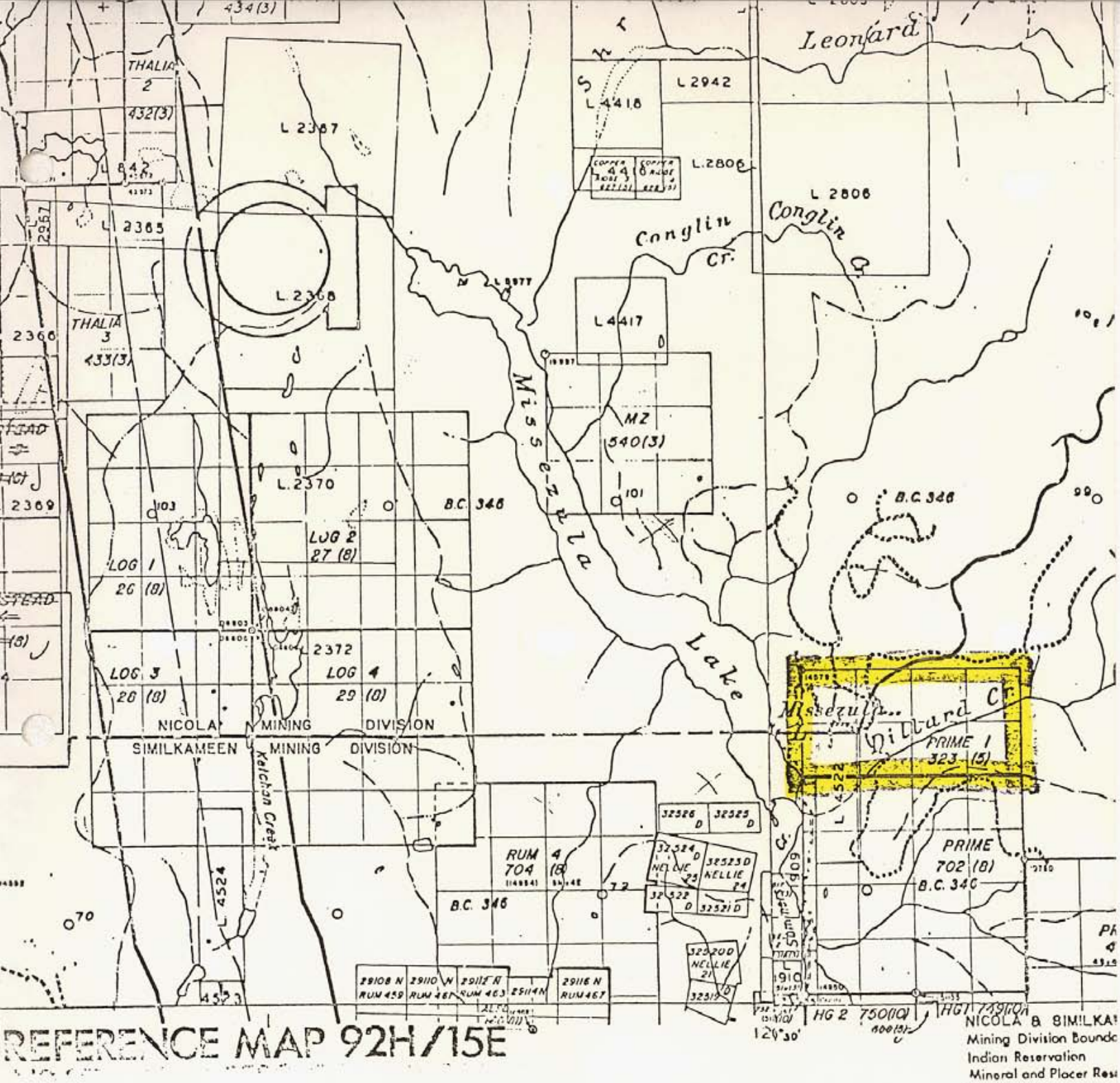
WORK COMPLETED

The outcrop geology was mapped on a scale of 1:2500. Special emphasis was given to locating lineaments that are an important factor in localizing copper mineralization in the Prime Claim area.

LOCATION AND ACCESS

The property is located in south-central British Columbia, 22 airmiles north of the community of Princeton. The approximate co-ordinates of the property are 49° 45' north latitude and 128° 28' west longitude.

The property can be reached from Princeton by taking the Merritt Highway north for 8 miles and then turning north on the Missezula Lake gravel road for 18 miles. A number of gravel roads in fair condition gives good access to the majority of the property from the Missezula Lake road.



REFERENCE MAP 92H/15E

NICOLA & SIMILKA
Mining Division Bound
Indian Reservation
Mineral and Placer Res
Ecological Reserve

PRIME LOCATION MAP

PRIME 1 CLAIM

1:50,000

PHYSIOGRAPHY

The Prime 1 Claim covers the Dillard Creek Valley that cuts the eastern slope of the Summers Creek - Missezula Lake valley. The claim covers the creek valley from near its mouth at an elevation of 1010 m. to the east side of the claim group at an elevation of 1210 m.

The northern boundary of the claims follows a prominent ridge that reaches an elevation of 1310 m. The southeastern portion of the claims covers a plateau area between the elevation of 1250 m. and 1305 m.

The valley of Dillard Creek is covered by fir, spruce and large cottonwoods with a thick willow undergrowth. The valley floor ranges in width from 100 m. to a narrow canyon between the elevation of 1040 m. and 1100 m.

There is ample water on the property for drill requirements.

CLAIMS

Name	Units	Record No.	Expiry Date
Prime 1	8	323(5)	May 20, 1981

The Prime 1 Claim is located in the Similkameen Mining Division.

GEOLOGY

General

The Princeton-Missezula Lake area is underlain by Nicola Group sediments, andesitic flows, and related volcanics of Triassic age.

This group is within a downfaulted block bounded by major north to northwest striking faults and bordered by Coast Range intrusive rocks of Jurassic age. This fault block has been cut by numerous smaller faults and by a wide range of dikes.

Property

The Prime Claim area is underlain by Nicola Group andesite flows, tuffs, agglomerates and limestone.

These rocks are located within an embayment of the Okanagan granodiorite batholith that lies to the east of the property. Dikes, sills and small stocks of varying composition cut the Nicola Group rocks in the property area.

Prime 1 Claim Area

More outcrop were expected to be found along the valley walls of Dillard Creek between the elevations of 1170 m. and 1220 m. There are numerous sharp gullies leading into the creek but they are cut in deep glacial till and no outcrop is exposed.

Downstream from 1170 m. outcrops start to appear on the south side of the creek. At 1100 m. where the valley narrows and the creek is cut in almost continuous outcrops to 1040 m. The last outcrop in the downstream portion of the creek is exposed in a small gravel pit at an elevation of 1015 m. There is no outcrop in the valley bottom at line 2E (El 1205 m.) but there is a good outcrop ridge at 2E - 200 m.s (El 1280 m.) where the valley side flattens into a rolling plateau.

The area mapped is underlain by andesites and related pyroclastics. The predominant rock type is a massive, dark, grey-green andesite with hornblende and feldspar porphyritic phases. On line 2E at 200 m.s the andesite is cut by a hornblende diorite porphry. The andesitic margins bordering the dike have been altered to a hybrid microdiorite.

A massive, fresh feldspar porphyry dike cuts the strongly fractured and pyritized (10 - 15%) andesites at El 030 m. The dike is from 25 to 30 m. wide and trends in a northwesterly direction.

Strong jointing was noted in the andesite outcrops in Dillard Creek between elevation 1130 m. and 1160 m. The joint attitude is not consistent, ranging from southwesterly to a south easterly strike and dipping at 60^{o} to 70^{o} to the south.

The interpreted northerly trending fault that follows the baseline on the Prime gride is represented by a broud gully leading into Dillard Creek and may possibly continue to the north.

Intense shearing accompanied by strong pyritization occurs in the lower part of the creek in the almost continuous outcrop area between elevation 1040 m. and 1070 m. This zone extends over a horizontal distance of 200 m. and is composed of a number of light yellow-orange pyritized shears up to 10 m. in width. The andesites in between the shears have been pyritized (5 - 10%) and is moderately to highly fractured.

Minor amounts of malachite were noted on fracture planes in the andesite adjacent to the intensely pyritized and altered shear zones to the east of the dam. (El 1045 m.). There appears to be no copper mineralization in the pyritized shears.

CONCLUSION

The east-west trending pyritized shear zone in lower Dillard Creek has not been traced to the east into the Prime Claim grid area. To the west this zone would be expected to intersect the major Summers Creek fault zone at the south end of Missezula Lake. The intersection of these major fault shear zones would be a good exploration target for copper mineralization although complicated by being completely overlain by the lake.

Only minor copper mineralization is associated with the Dillard Creek shear zone where it has been observed in the canyon. However, it is concluded that additional geological mapping and geochemical sampling is warranted in order to trace this zone into the Prime Claim and to the north into the Prime 1 Claim.

Respectfully submitted,

G. C. Cuttell, P. Eng.

ENGINEER'S CERTIFICATE

I, GORDON C. GUTRATH, of 3880 Selkirk Street in the City of Vancouver, in the Province of British Columbia, DO HEREBY CERTIFY:

1. That I am a consulting geologist with a business address of 900 - 850 West Hastings Street, Vancouver, B.C. V6C 1E1.

2. That I am a graduate of the University of British Columbia where I obtained by B.Sc. in geological science in 1960.

3. That I am a Registered Professional Engineer in the Geological Section of the Association of Professional Engineers in the Province of British Columbia.

4. That I have practiced my profession as a geologist for the past eighteen years, and

5. That I am a director and shareholder of Piper Petroleums Ltd.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA G. C. GUTRATH

Gordon C. Gutrath, B.Sc., P.Eng.

DATED at the City of Vancouver, Province of British Columbia this 21 day of July, 1980.

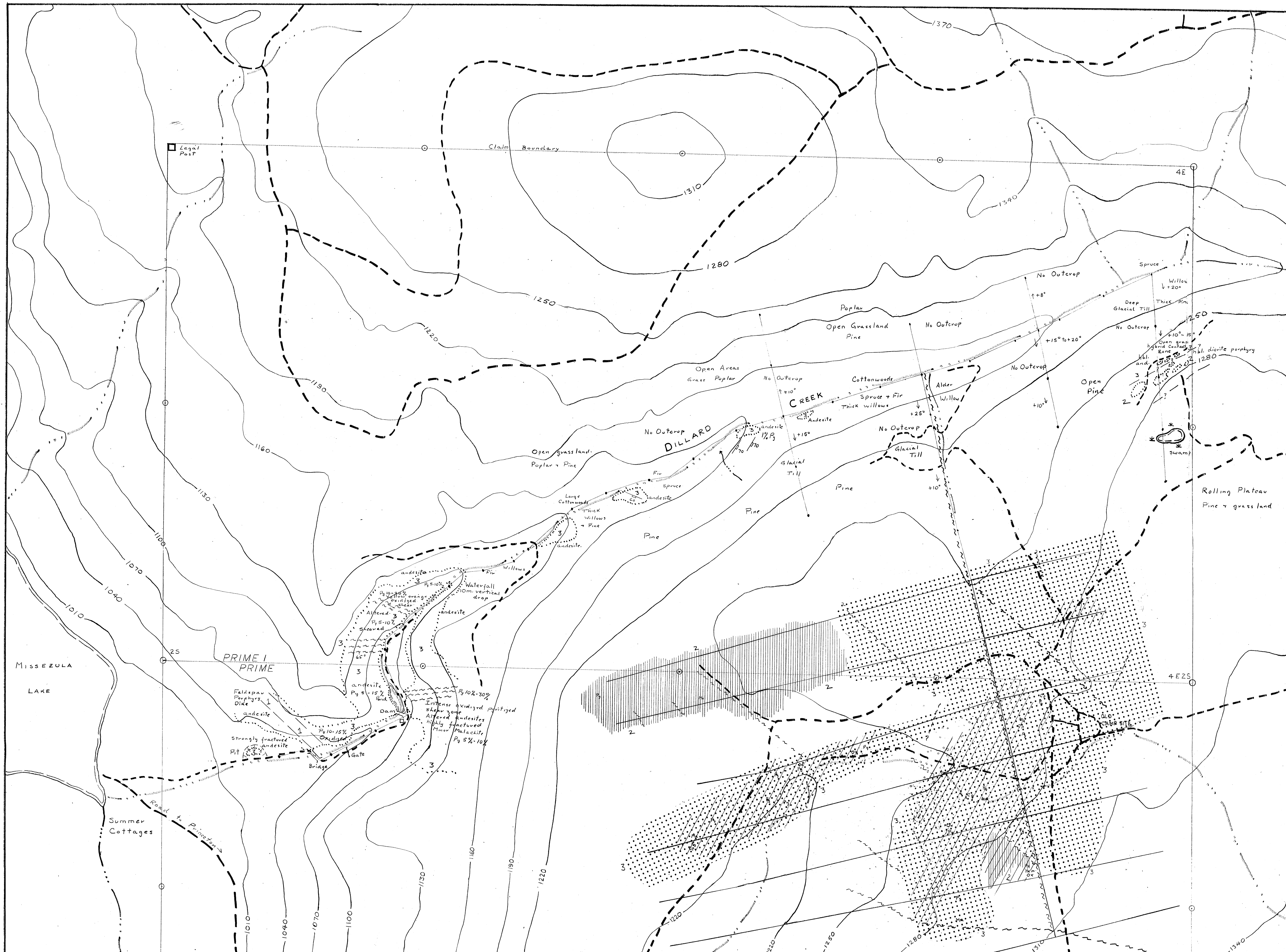
STATEMENT OF EXPENDITURES

Field Wash

G. Gutrath, P. Eng. - Geological mapping

D. Gutrath, Assistant

5 days at an overall cost of $300/day =	$1,500
Report and data compilation	
G. Gutrath, P. Eng.	600
	$2,100



LEGEND

1	FELDSPAR PORPHYRY MONZONITE DIKE: Medium grained feldspar laths in a fine to medium grained light buff coloured ground mass, fresh.
2	DIORITE: Dark grey, fine to medium grained. All or in part hybrid phase of andesite volcanics.
3	ANDESITE VOLCANICS: Dark grey to light grey-green, fine grained, hornblende and plagioclase porphyritic phases, fragmental flows.
4	CARBONATE-QUARTZ VEINING
5	Areas of more intense fracturing and shearing with associated chlorite, epidote and feldspathic alteration. These areas have a pyrite content varying from 3 to 20%, magnetite 1 to 3% and a trace to 1% chalcopyrite. Near surface these areas are usually oxidized, forming dark reddish orange to orange yellow gossans.
	Shearing attitude
	Joint attitude
	Geological contact
	Lineament: the majority of these represent fault-shear zones. On surface they form gullies — minor, major
N5	Specimen location
	Outline of outcrop
Ox	Oxidized (limonite)
Py	Pyrite
Cp	Chalcopyrite
Ma	Malachite
And.	Andesite
hbl.	Hornblende
	Trench
	Pit
	Main Road
	Tote Road
+5°	Slope direction and degree

PIPER PETROLEUMS LTD.
VANCOUVER, B. C.

PRIME CLAIM GROUP
SIMILKAMEEN MINING DIVISION

NTS	92H - 16W
Field Work	G. Gutrath
Drafting	G. G.
Date	June 1978
Scale	1:2500

OUTCROP GEOLOGY

50 0 50 100 150 m.