85-15-13423

PRELIMINARY GEOLOGICAL MAPPING
P.C. MINERAL CLAIM GROUP
FORT STEELE MINING DIVISION
ARGYLE AND ALKI CREEKS
ST. MARY LAKE AREA, B.C.
NTS 82 F/9 E

LATITUDE 49°38'N LONGITUDE 116°11'W

Prepared for

CHAMPAGNE RESOURCES LTD.

GEOLOGICAL BRANCH ASSESSMENT REPORT

13,423

ARCTEX ENGINEERING SERVICES

Locke B. Goldsmith, P.Eng. Consulting Geologist

January 20, 1985

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GEOLOGY MAP	(Pocket inside back cover)

PRELIMINARY GEOLOGICAL MAPPING
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SUMMARY

The property is underlain by Proterozoic Lower Aldrich quartzite, argillite, and siltstone. Late Proterozoic (?) Moyie diorite intrudes the sediments.

No mineralization was observed within the claims. Chalcopyrite-pyrrhotite deposits are known to occur in diorite in the immediate vicinity. A programme of reconnaissance geological mapping, geochemical sampling, and prospecting is recommended at a cost of \$25,000.

INTRODUCTION

The P.C. 1 staked mineral claim, and the Matterhorn, Minnie Ha Ha, Hidden Treasure, and Columbia reverted crown-granted mineral claims are located 14 km at 250° from the town of Kimberley, B.C., on the north side of St. Mary Lake. Access through the southern part of the property is westerly via 17 km of paved and all-weather gravel roads from Marysville. Elevations range from 975 m (3200') at lake level to 2010 m (6600') in the northeast corner of the P.C. 1 claim. A logging trail extends up the eastern side of Alki Creek to 1310 m (4300') elevation at which point the trail becomes a footpath and continues beyond 1370 m (4500') elevation.

Recording data of the claims are listed below:

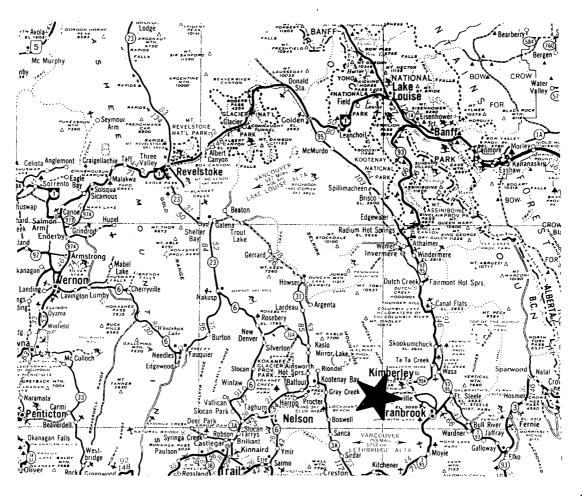
Claim Name	Lot Number	Record Number	Record Date	Number of Units
P.C. 1		1761(3)	Mar. 17, 1983	20.
Matterhorn	8966	1743(2)	Feb. 17, 1983	1
Minnie Ha Ha	8967	1744(2)	Feb. 17, 1983	1
Hidden Treasure	8968	1745(2)	Feb. 17, 1983	1
Columbia	8969	1746(2)	Feb. 17, 1983	1

Snow conditions restricted the areas which could be examined to traverses up Alki and Argyle creeks and descents along contours and down the steep slopes between creek valleys.

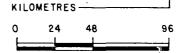
GEOLOGY

Rocks within the claims are mapped as Proterozoic Lower Aldrich quartzite, argillite, and siltstone. Upper Proterozoic (?) Moyie diorite intrusions form cliffs on the south-facing slopes, and are the most prominent outcrops. Some exposures of diorite near the east end of St. Mary Lake have a hybrid appearance, suggestive of digestion of wallrock during intrusions.

A copper occurrence in diorite is noted approximately 2 km northeast of the northeast corner of the P.C. 1 claim (Leech, 1957). Several occurrences of



LOCATION MAP



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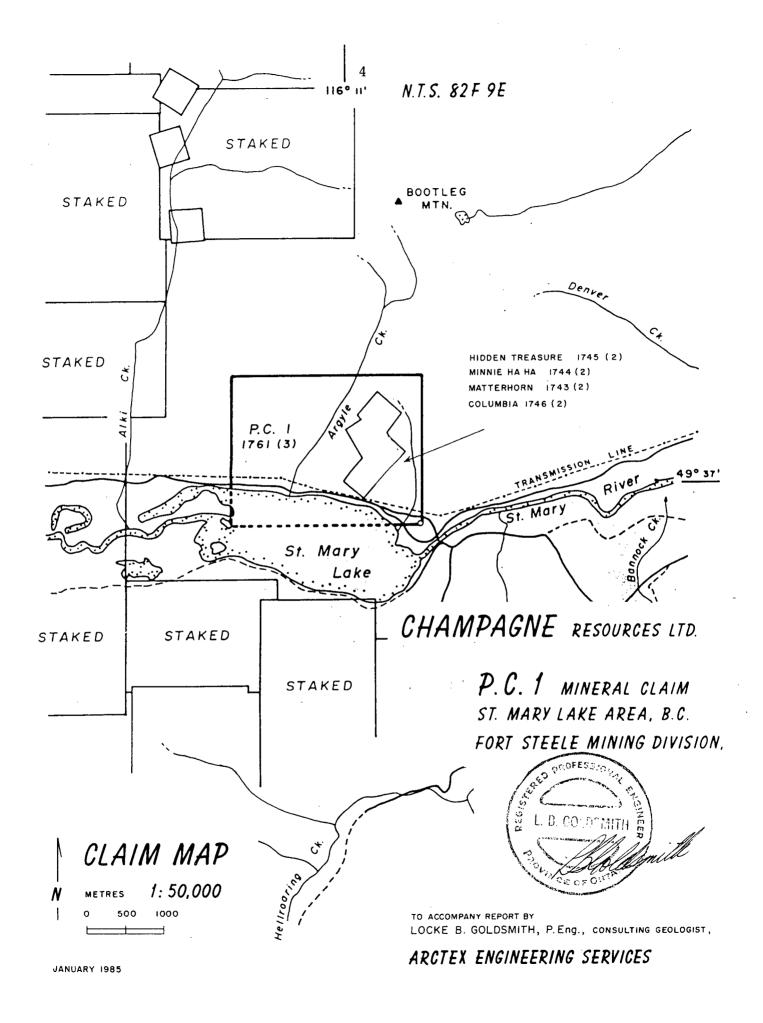
P.C. 1 MINERAL CLAIM ST. MARY LAKE AREA, B.C. FORT STEELE MINING DIVISION,



TO ACCOMPANY REPORT BY LOCKE B. GOLDSMITH, P. Eng., CONSULTING GEOLOGIST,

ARCTEX ENGINEERING SERVICES

JANUARY 1985



chalcopyrite-pyrrhotite in diorite are shown in the headwaters of Alki Creek, from 2-4 km northwest of the property. No mineralization was observed during the investigation. A silver showing is reported to occur within the area of the reverted crown grants (personal communication, R. Simpson, who was advised of the mineralization by former owners).

CONCLUSIONS

Copper occurrences are known in diorite nearby. Some exploration for silver and possibly gold is warranted in or adjacent to the diorite. Gold-bearing fossil placer deposits in the Proterozoic sediments should be a consideration during reconnaissance exploration.

RECOMMENDATIONS

A programme of reconnaissance geological mapping, soil and rock geochemistry, and prospecting should be undertaken to examine the area for precious metal mineralization.

COST ESTIMATE

A budget of \$25,000 should be available for the first phase of exploration. Results of each Phase should be compiled into an engineering report; continuance to the subsequent Phase should be contingent upon receiving favourable conclusions and recommendations from an Engineer.

Respectfully submitted,

Locke B. Goldsmith, P.Eng. Consulting Geologist

Vancouver, B.C. January 20, 1985

ENGINEER'S CERTIFICATE

LOCKE B. GOLDSMITH

- 1. I, Locke B. Goldsmith, am a Registered Professional Engineer in the Province of Ontario and the Northwest Territories, and a Registered Professional Geologist in the State of Oregon. My address is 301, 1855-Balsam Street, Vancouver, B.C.
- 2. I have a B.Sc. (Honours) degree in Geology from Michigan Technological University, a M.Sc. degree in Geology from the University of British Columbia, and have done postgraduate study in Geology at Michigan Tech and the University of Nevada. I am a graduate of the Haileybury School of Mines and am a Certified Mining Technician. I am a member of the Society of Economic Geologists, the AIME, and the Australasian Institute of Mining and Metallurgy, and a Fellow of the Geological Association of Canada.
- 3. I have been engaged in mining exploration for the past 26 years.
- 4. I have authored the report entitled, "Preliminary Geological Mapping, P.C. Mineral Claim Group, Fort Steele Mining Division, Argyle and Alki Creeks, St. Mary Lake Area, B.C.", dated January 20, 1985. The report is based upon fieldwork and research supervised by the author.
- 5. I have no ownership in the property, nor in the stocks of Champagne Resources Ltd.
- 6. I consent to the use of this report in a prospectus or in a statement of materials facts related to the raising of funds.

Respectfully submitted,

Locke B. Goldsmith, P.Eng. Consulting Geologist

Vancouver, B.C. January 20, 1985

REFERENCES

- Leech, G.B. 1957. St. Mary Lake, Kootenay District, B.C. G.S.C. Geology Map 15-1957.
- Mark, D.G. 1984. Geophysical report on a VLF-EM survey over the P.C. claim group, Argyle Creek, St. Mary Lake area, Fort Steele Mining Division, B.C. Private report for Trans-Arctic Explorations Ltd.

COST STATEMENT, 1985 PROGRAMME

1. Wage Scales:

L.B. Goldsmith, consulting geologist, $\frac{1}{4}$ Jan. 9, $\frac{1}{2}$ 13, 14, 15, $\frac{1}{2}$ 16, $\frac{1}{4}$ 18, $\frac{3}{4}$ 19, $\frac{1}{4}$ 20, total $4\frac{1}{2}$ days @ \$360/day

\$1,620.00

2. Food, Accommodation:

\$198.09 : 3 field days = \$66.03/day

198.09

3. Transportation:

Car rental

\$217.26

Air fare

 $\frac{261.35}{478.61}$

478.61

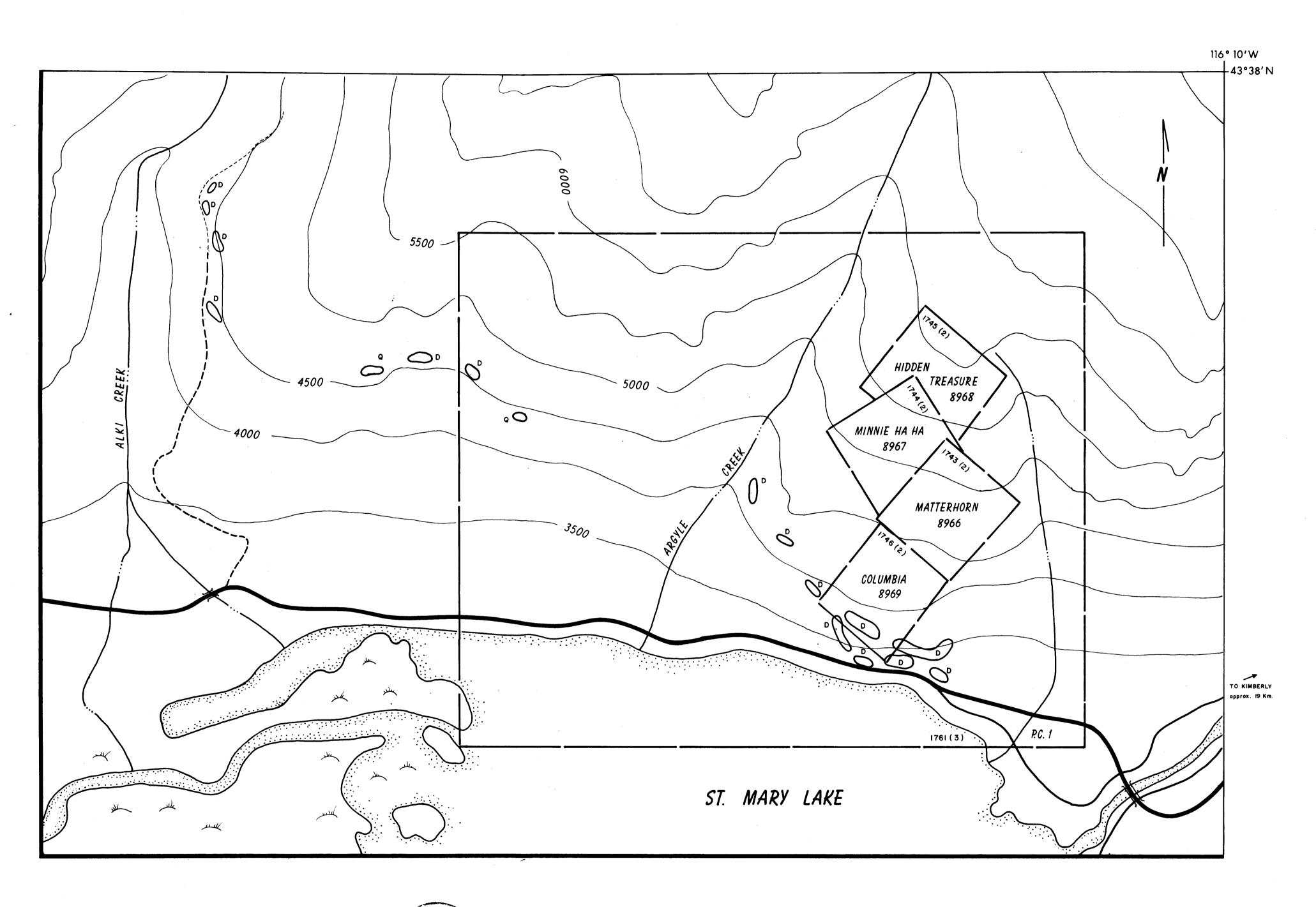
4. Report:

Drafting, typing, photocopying, prints, materials

345.51

TOTAL:

\$2,642.21



 $1 \, \text{cm.} = 100 \, \text{m.}$

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P.C. 1 MINERAL CLAIM ST. MARY LAKE AREA, B.C. FORT STEELE MINING DIVISION, N.T.S. 82F 9E

GEOLOGY MAP

TO ACCOMPANY REPORT BY LOCKE B. GOLDSMITH P. Eng. CONSULTING GEOLOGIST ARCTEX ENGINEERING SERVICES

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LOGGING TRAIL

STRATIGRAPHY

D UPPER PROTEROZOIC (?) MOYIE DIORITE

Q PROTEROZOIC LOWER ALDRICH FORMATION: QUARTZITE, SILTSTONE, ARGILLITE.

CONTOUR INTERVAL: 500 FEET