

3963

A GEOCHEMICAL REPORT ON THE PAT CLAIMS (1 to 24)

Three Sisters Range, Liard Mining Division, B.C.

Location: 26 miles southeast of Dease Lake B.C.

58°10' N.Lat., 129°30' W.Long. NTS 104 I 3W,4E

For L.J. Elliott (holder) of 704 33A St. Calgary, Alta.

by

T.L. Sadlier-Brown & E.O. Chisholm P.Eng.

Aug 24th 1971 to Sept 12th 1971

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 3963 MAP _____

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Introduction

Location and Access:

The Pat Claims are situated in the Sisters Range at the head of the Tanzilla River about 26 air miles southeast of the town of Dease Lake. An old trail follows along the Tanzilla River from the vicinity of the Cassiar - Stewart Highway but stops short of the headwaters. It could provide access by foot or horseback but, given the availability of helicopters at Dease Lake, the cheapest, quickest, and by far the most convenient approach is by air. The group consists of 24 contiguous mineral claims staked on Aug 24th 1971 by A. Carlos. Record numbers are 55031 to 55054 incl.

Topography and Physiography:

The claim group lies for the most part in an east - west trending glacial valley partly occupied by a small lake at an elevation of about 5000 feet. The northern and southern parts of the group, however, are in steeply sloping to precipitous mountainous terrain. The entire area is above tree line and vegetation consists only of grass, a few alders, and some buckbrush. Drainage from most of the claims is from the the north, east, and south to the small lake and then westerly to the Tanzilla River which is a tributary of the Stikine. Overburden is non-existent on the steep slopes of the Sisters Range but near slope bases at the edge of the valley there is a considerable concentration of colluvial material. This generally overlies glacial deposits which fill the valley to an unknown but probably substantial depth except in the eastern part of the claims where outcrop is present within the valley itself.

General Geology:

The Pat Group is underlain entirely by the granitic rocks of the Hotailuh Batholith. These are upper mesozoic in age and consist of granite, quartz diorite, diorite, and monzonite. They are generally coarse to medium grained and contain biotite, hornblende, and local concentrations of epidote. Chalcopyrite was observed disseminated in the intrusive rocks in patches on the slope of the mountain south of the lake and again in a siliceous vein about 8 inches wide near the eastern border of the claims. A geochemical survey was regarded as a first step in delineating the extent of the mineralization.

Geochemistry

Specifications:

A soil sampling survey was initiated soon after staking. A total of 113 samples were taken with a mattock along cut and chained picket lines at 200 foot intervals. They were placed in paper sample bags, numbered, and shipped to Vancouver Geochemical Laboratories Ltd. of North Vancouver, B.C. for testing. The analytical procedure used was as follows: All samples were dried, screened, weighed, and a 1 gm specimen of the -80 mesh fraction was dissolved in hot perchloric nitric acid. Each of the resulting solutions was tested for copper and molybdenum using a Techtron AA4 and AA5 Atomic Absorption Unit. Results were quoted in parts per million copper and molybdenum and were plotted at a scale of 1 inch to 400 feet on the accompanying maps.

Observations:

(Copper)

Using 50 ppm Cu as a threshold value 6 areas of high soil copper content were identified along with several spot highs which are attributed to float. Of the valid anomalies the most important are those located in the eastern part of the claims. These are: 1/ on claims 8 and 19; 2/ on claims 6 and 8; and 3/ on claims 3, 4, and 5. Highest values are in excess of 200 ppm Cu but it should be mentioned that the wide line spacing used does not permit very accurate delineation of some of the anomalies.

Anomaly #1 is an elongate north-south trending zone with an apparent source on the mountain slope to the east. #2 is an elongate northwest - southeast trending anomaly with only one value over 100 ppm Cu. It is, however, in excess of 1600 feet long and 400 feet wide and may represent copper mineralization found by prospecting just off its eastern limit. It is open in this direction and may be the most important anomaly on the group. The third area trends northwest - southeast along the southwest side of the valley. It is attributed to several pockets of copper mineralization of unknown extent observed up slope to the southwest.

The anomalous areas on claims 13 and 14, claims 14 and 16, and on claim 18 are tentatively attributed to glacial material carried down the valley from the east. A substantial number of boulders mineralized with chalcopyrite have been found in these areas which are believed to be heavily drift covered.

(Molybdenum)

The only molybdenum values of even marginal interest occur near the stream on claims 7 and 8 and just west of the lake on claim 4. The former coincides roughly with a copper anomaly in the area and has a probable source to the southeast where a few small pockets of disseminated molybdenite have been observed. The other may be related to the copper mineralization on the southwest side of the valley.

A spot high of 195 ppm Mo occurs on line 24W at 14+OCS. It is attributed to mineralized float.

Conclusions and Recommendations

The most important areas for further work are the three copper anomalies in the southeastern part of the grid area. Numbers 1 and 3 on the north and south slopes of the valley respectively should be prospected intensively. Area 2 probably represents material being brought down the valley from the east and possibly local mineralization on the same trend. Further prospecting should be done to test these possibilities.

Detailed geological mapping of the entire group is definitely warranted and provision should also be made for a possible IP survey. This should cover the part of the valley east of the lake and up as high as is feasible on the slopes of the mountains.

In addition more geochemical sampling should be done up the valley to the east and southeast of the existing grid. The sampling should be grid controlled and should probably be accompanied by additional staking in this area.

An estimate of costs for these recommendations is as follows:

Geological Mapping	\$2000
Follow-Up Prospecting	\$1500
Additional Geochemistry	\$2500
IP Survey	\$4000
Contingencies	\$1500

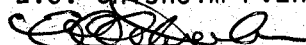
TOTAL \$11,500

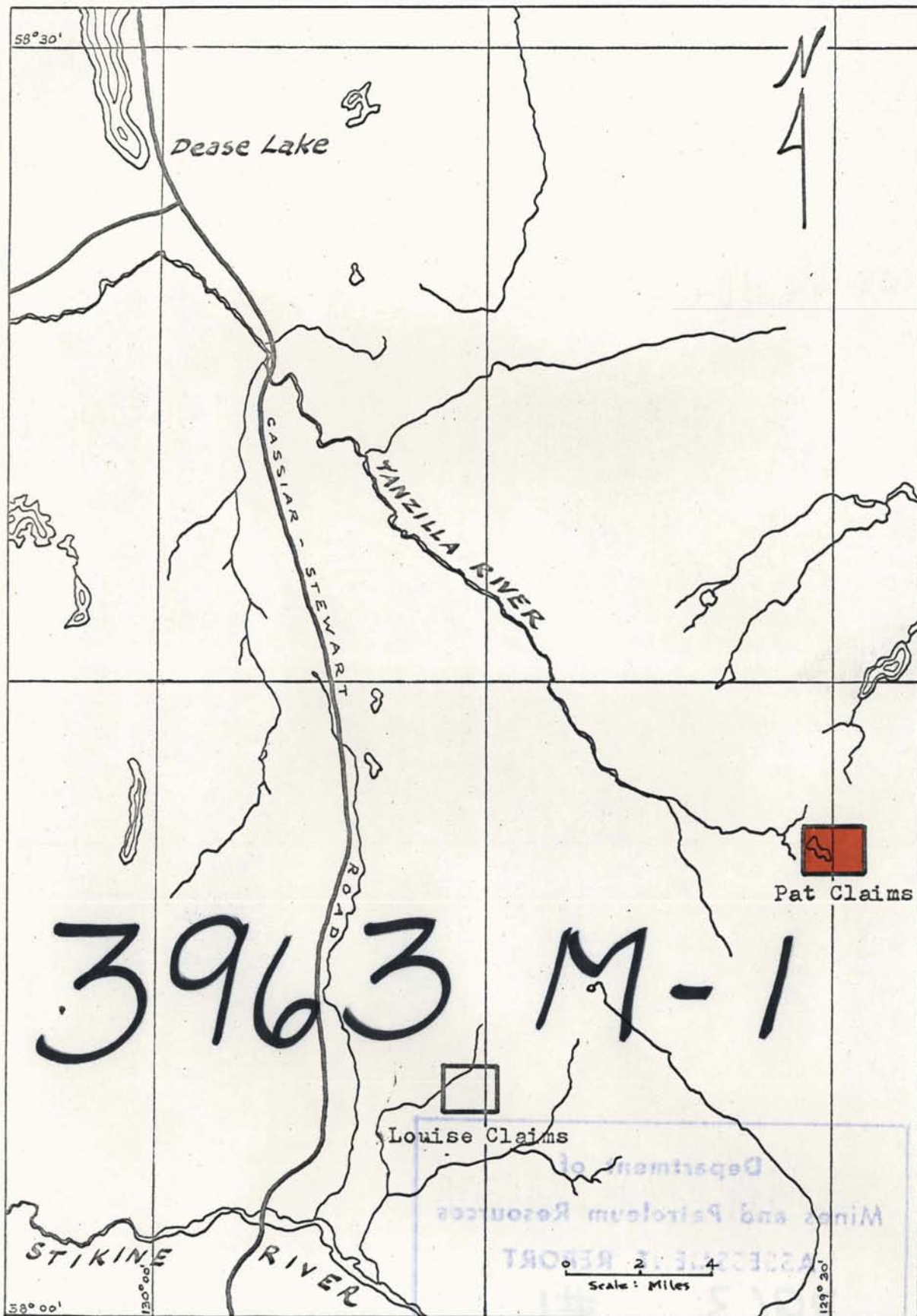
respectfully submitted



T.L. Sadlier-Brown

E.O. Chisholm P.Eng.





LOCATION MAP: PAT & LOUISE CLAIMS, DEASE LAKE AREA
LIARD MINING DISTRICT, B.C.

Declaration and Statement of Costs

I declare that the following costs were assumed during the course of the exploration program on the Pat Claims:

	Dates	Days	Rate	Totals
Line Cutting and Picketing				
A. Carlos	Aug 30-Sept 3/71	5	\$25/day	125
N. Glass	Aug 30-Sept 3/71	5	\$25/day	125
Camp Costs	5 days @ \$24/day			120
Soil Sampling				
S. Williams	Sept 5-12/71	8	\$25/day	200
T. McCrory	Sept 5-12/71	8	\$25/day	200
Camp Costs	8 days @ \$24/day			192
Supervision				
T.L. Sadlier-Brown	Aug 27, Sept 3, 5, 12; 4	@ \$50/day		200
Map Preparation & Interpretation				
T.L. Sadlier-Brown	Oct 2 - 7/71	6	\$50/day	300
Secretarial & Drafting Costs				100
Geochemical Analyses: 113 samples @ \$1.70/sample				192
Assays and Check Samples				45
Helicopter Charter from Dease Lake				
3.5 hours @ \$240/hr.				840
			TOTAL	<u>\$ 2639</u>



T.L. Sadlier-Brown

Statement of Qualifications: T.L. Sadlier-Brown

Education: Carleton University, Ottawa; 4 years geology

Experience: Engaged in all phases of geological field work throughout Canada since 1958.

Recent Positions (in reverse chronological order):

Geological Contractor (Independent) 1971-72

Exploration Manager, Nicanex Mines Ltd. 1969-71

Geologist, Sevensma Consultants 1969

Geologist, Atlas Explorations 1966-69

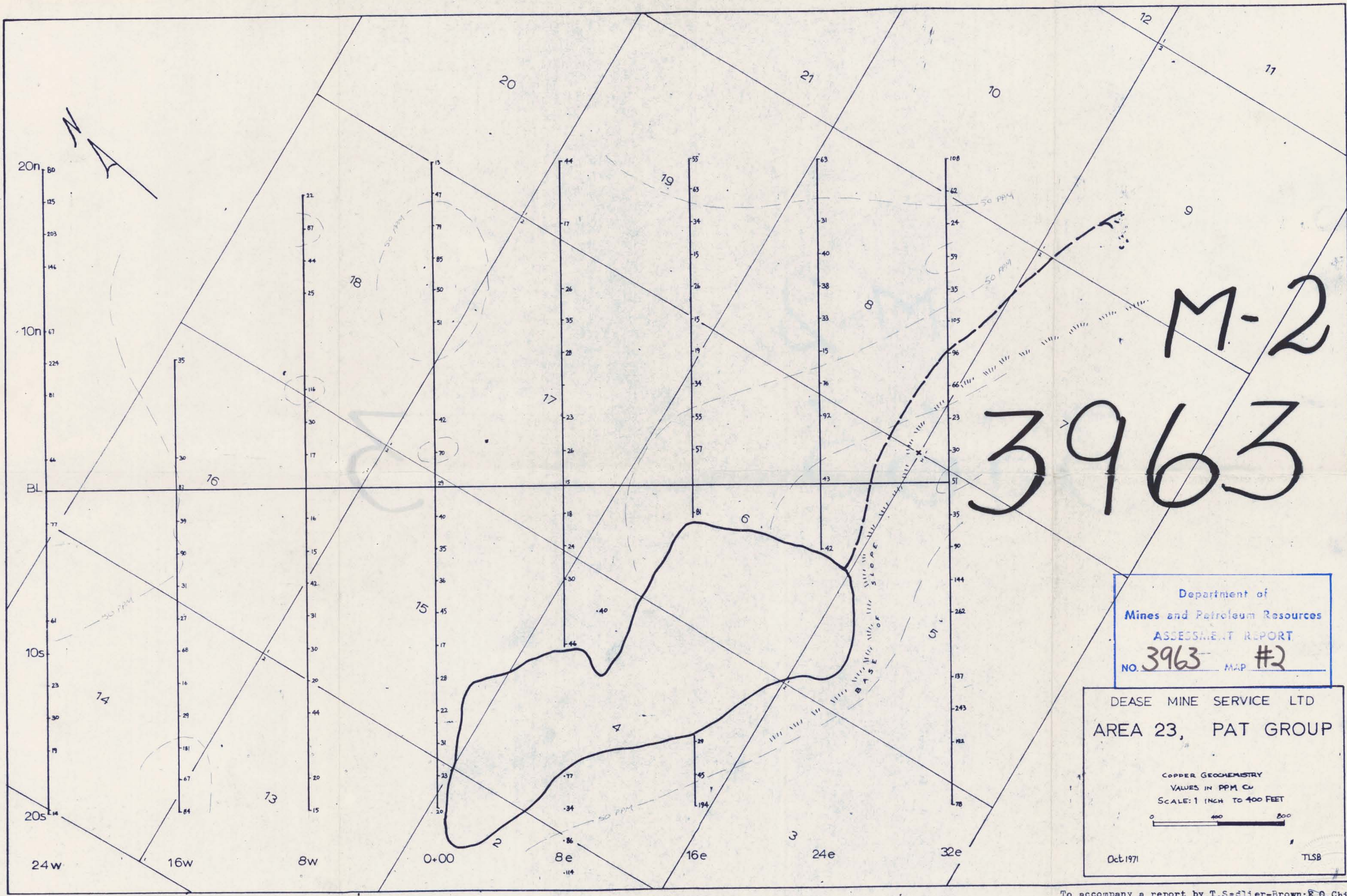
Geologist, Mt. Costigan Mines 1965-66

Technical Officer, Geological Survey of Canada
1963-64



T.L. Sadlier-Brown

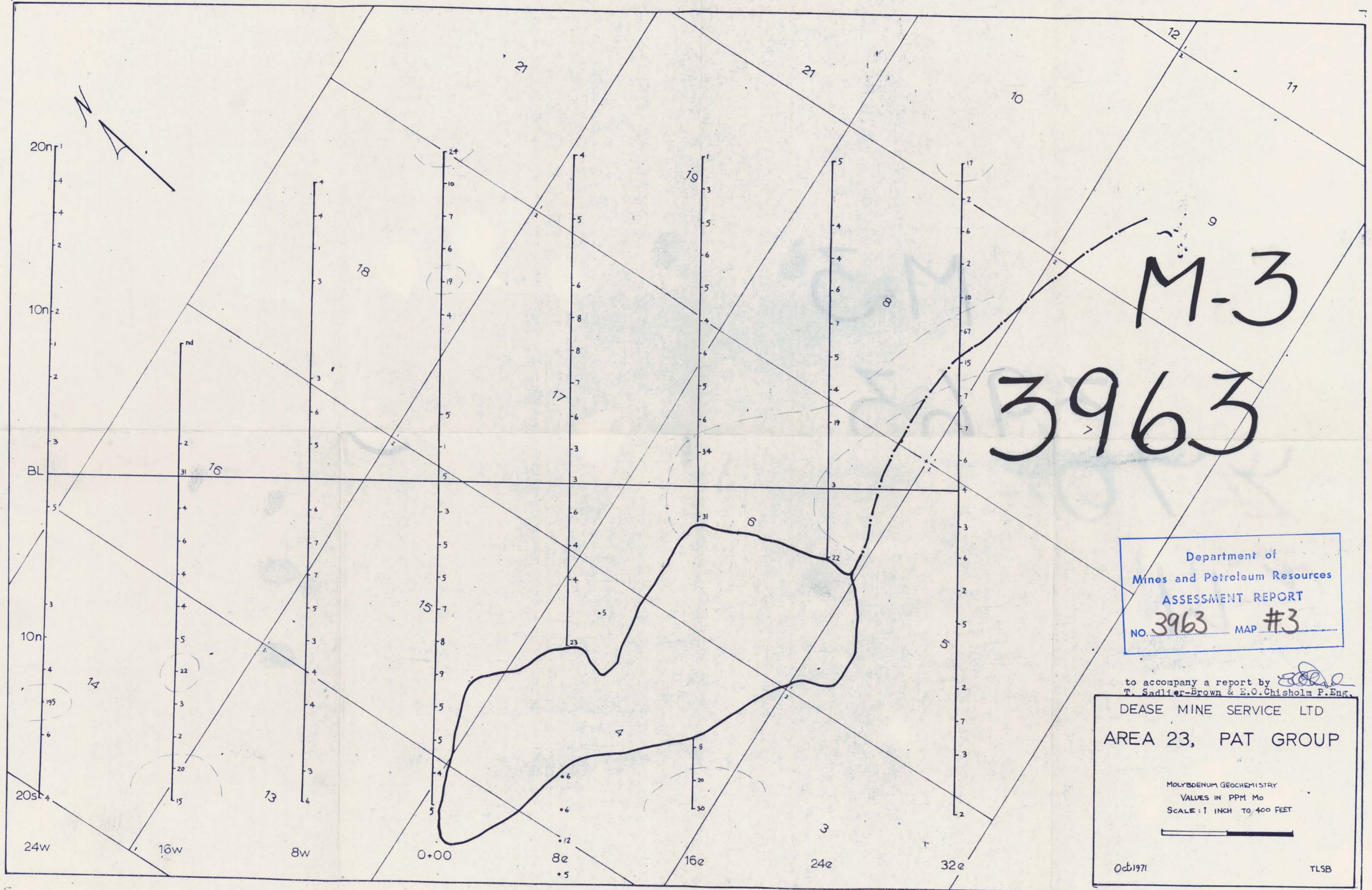
1102 1307 Harwood St., Vancouver



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DEASE MINE SERVICE LTD
AREA 23, PAT GROUP
COPPER GEOCHEMISTRY
VALUES IN PPM CU
SCALE: 1 INCH TO 400 FEET
0 400 800
Oct 1971
T.L.S.B.



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to accompany a report by
T. Sadler-Brown & E.O. Chisholm P.Eng.

DEASE MINE SERVICE LTD
AREA 23, PAT GROUP

MOLYBDENUM GEOCHEMISTRY
VALUES IN PPM Mo
SCALE: 1 INCH TO 400 FEET

Oct 1971

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