

03/86

Summary Report

Line cutting and VLF EM surveys

TOQ 1 Mineral Claim

Kamloops Mining Division

Lat 50°47.5' NTS 92I/14 Long 121°02'

for

Whopper Holdings & R. Carey

Owners/Operators

by

Dirk Moraal

FILMED

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

Kamloops

14,229

1985 03 05

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1.0 Introduction

The TOQ 1 Mineral Claim consist of 20 units staked under the modified grid system, placed to cover several mineral showings in the area.

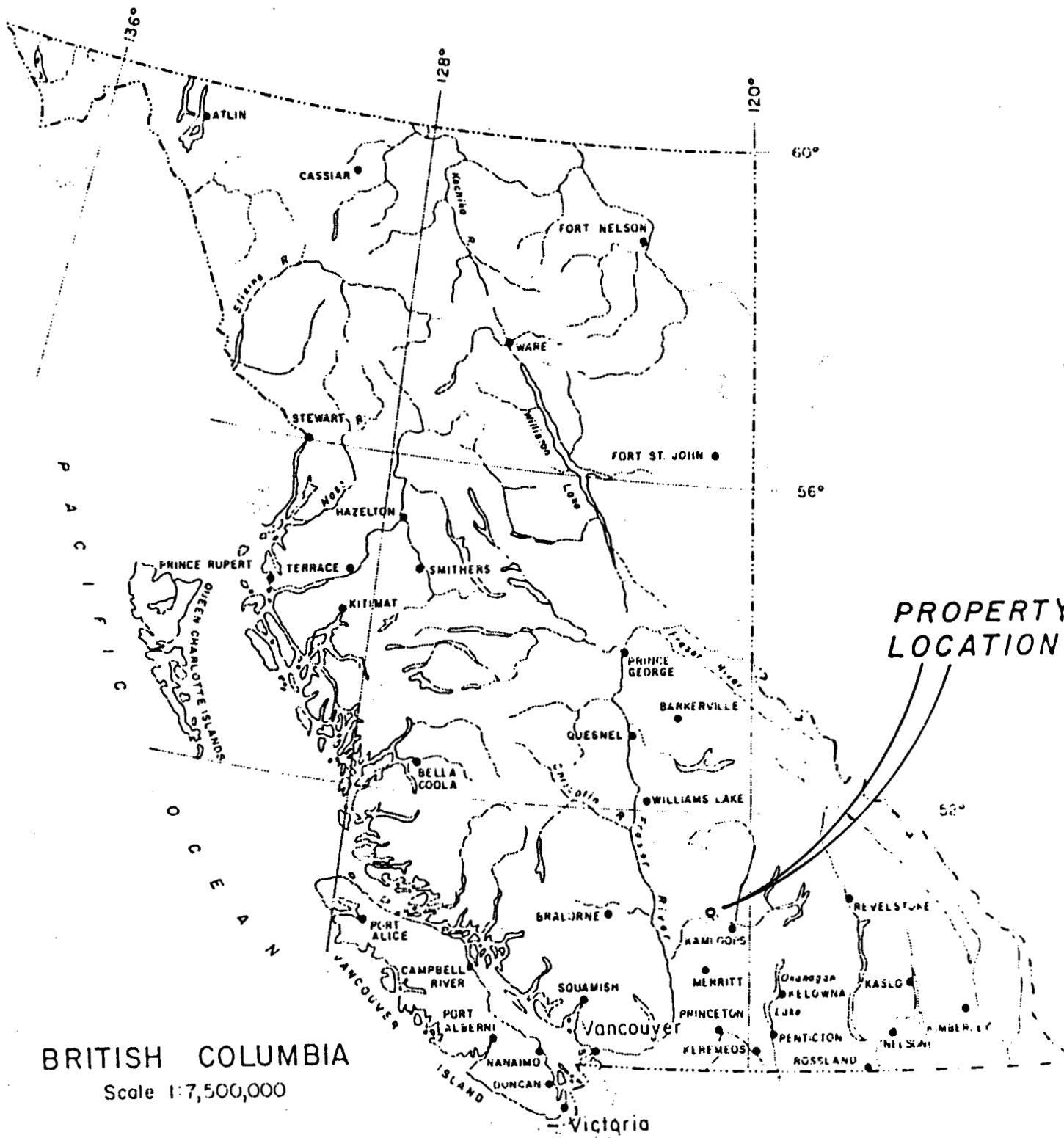
2.0 Location, access and topography

This claim is situated near the village of Walhachin, halfway between Cache Creek and Savona, on Hwy # 1. The LCP was placed on the south side of the highway about 2200 m west of the Walhachin turnoff. Access to the claim from Hwy # 1 is via a dirt track that turns north from the highway at a point one Km west of the turnoff. Vegetation is typical of the semi-arid, sagebrush and ponderosa pine country of the Thompson River area. Elevations vary from 330m at the Thompson River to 800m at the north boundary of the claim.

While the claim is situated on a gentle south facing slope, it is cut by two deep, steep sided gullies of up to 150m in depth, and many small, narrow minor gulches.

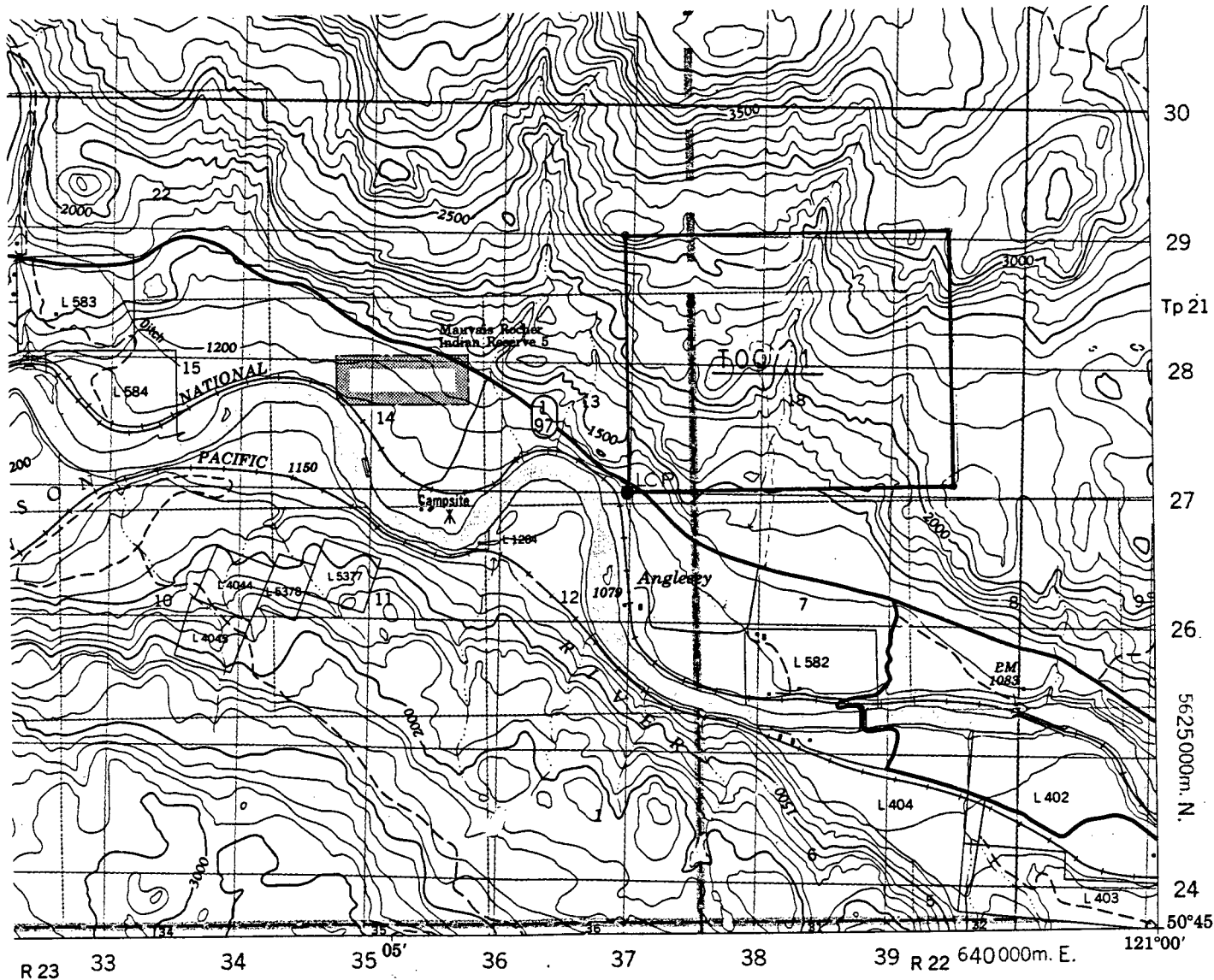
3.0 Ownership and claim status

The TOQ 1 Mineral Claim is held jointly by Whopper Holdings of Kamloops, and Mr. R. Carey of Savona, B.C. The claim is in good standing. The expiry date is March 10, 1985. The TOQ 1 consists of 20 units, record number 4376(3).



BRITISH COLUMBIA
Scale 1:7,500,000

TOQ I



TOQ 1

INDEX MAP

NTS 92-1-14 1:50000

Picte
2

0 ————— 2 000m

4.0 History and previous work

The local area has seen exploration activity since the early 1940's. The Geological Survey of Canada Memoir 262, of 1951 describes a massive zinc sulphide occurrence, and several minor zinc, copper and pyrite showings. Trenching and drilling reports before 1944 do not mention any ore grade mineralization. The B.C. Department of Mines tested the area with a geiger counter in 1958. Soil samples were collected in 1961. Reports of bulldozer trenching in 1967 mention values of up to 0.4 % copper, 0.4 oz/ton silver and 1 % zinc, with traces of gold.

In 1970 the property was optioned by Cache Creek Mines, and seven diamond drill holes were made, but no reports were filed at the time.

In 1972, a magnetometer survey was carried out by Northland Mines and the property subsequently was allowed to lapse.

In 1977 the Quinto Mining Corp. caused extensive geological, geochemical and magnetometer work to be carried out. This is described in Assesment Report 6525.

In 1983, a Ronka VLF-EM survey and prospecting program was carried out by J.D. Murphy, PEng, of Kamloops. A subsequent geophysical report by the same author mentions two strong anomalies on the claim.

5.0 Summary of work described in this report

5.1 Grids. Two small grids were established over areas considered to be of interest. The grids were designated Grid A, for the more westerly grid, and Grid B for the more easterly one.

5.2 Geophysics. Sabre VLF was chosen for this property, since very little electromagnetic work has been done before, and previous VLF surveys have outlined fairly strong conductors.

Work was carried out between February 16, and March 2, 1985

6.0 Geology

The area covered by the TOQ 1 mineral claim was well mapped by Gruenwald, in 1977. A window of Triassic Nicola Volcanics is intruded by rocks of the Guichon Batholith. Mineralization can be found along the Volcanic-Intrusive contacts and on outcrops of Nicola Volcanics. These consist of sphalerite, chalcopyrite, malachite, and pyrite. Native copper also was reported in the area. A rock chip sample gave values of 55 ppb gold, and 15.0 ppm silver. A belt of Triassic marine limestone strikes northwardly approximately through the center of the claim.

7.0 Results

7.1 Grids

Grid A. A 400m baseline and two survey lines of 750m in length, 100m apart along the baseline with station intervals of 15m along the survey lines. The lines run 300m west of the baseline and 450m to the east. Total lines, 1800m.

Grid B. Consists of a 400m baseline and four survey lines spaced 100m apart along the baseline, with station interval of 15m along the survey lines. Each line is 600m in length and run east of the baseline. Total lines, 2800m. Total lines, both grids, 4600m.

7.2 Geophysical surveys

The prospectors surveyed the two grids using a Sabre VLF-EM receiver, tuned to Seattle, Washington, NLK on 24.8 Khz, recording Dip angle, Field Strength, and Residual Field Strength (the out of phase component of the primary field, in %) Data was recorded using Crone's convention, listing data from west to east and giving the west dips a positive sign. Dip angle data was treated with Frasers Algorithm to render contourable information. Areas considered anomalous were also treated with a formula devised by Fraser to obtain depth and "quality" of anomalies. All calculations were performed on a small computer using simple programs devised by the writer, and tested with data published by Fraser.

Grid A. Two lines totalling 1500m were surveyed with the Sabre VLF-EM unit.

Line 7+00 N. Dip angle data shows a fairly strong inflection with coincidental Field Strength high centered in station 180 W and Fraser filter shows a positive maxima at this location. This anomaly is not associated with any known geological feature and Cu and Py showings have been noted in the vicinity. Fraser's formula for depth/quality indicates a depth of 45m, with a quality of 120 Amp/ft. Fraser's paper on the subject uses

Geophysical surveys/cont.

295 Amp/ft at a depth of 20m as an example of a typical strong anomaly.

Weaker Dip angle inflections west of the baseline, accompanied by weak Field Strength and slight out of phase positive values appear to coincide with contacts between limestone and volcanic rocks.

Line 6+00 N. Dip angle profiles show a strong profile centered on 120 E. This anomaly has a strong coincidental Field Strength and a positive Fraser Filter anomaly. This anomaly, when treated with Fraser's formula for depth/quality shows a depth to current flow of 45m, and an anomaly quality of 267 Amp/ft, making it a very strong conductor.

Grid B. This grid consists of four 600m lines surveyed with the Sabre VLF-EM unit.

Line 3+00 N. Dip angles are shallow, but still indicate two anomalous zones, at 300E and 450E. A minor crossover with a Field Strength low centered at 165E coincides with a contact between volcanic and intrusive rocks. Field strength is mainly consistently high along this line. While the anomaly at 450E is not very strong, it does have an out of phase positive inflection, and a weak Fraser anomaly.

Line 2+00 N. Dip angles are shallow, as on line 3+00 N, with weak profiles at 150E and 375E. Field strength readings are high overall, with two lows at 165E and 405E. Out of phase readings become more active on this line, with positive inflections at 180E and between 300E and 435E.

Line 0+00 . Dip angles are flat on this line, with Fraser Filter showing a series of small positive peaks. Field strength is more erratic than on previous lines. Two field strength lows coincide with extremely high out of phase readings. The first of these is between 30E and 180E, and the second is at 360 E. Out of phase readings between 180E and 360E are still high enough to be called anomalous. A further out of phase anomaly occurs towards the east.

Line 1+00 S. Dip angles are very shallow. One small inflection at 15E is flanked by an out of phase positive inflection. At 540E a second shallow inflection coincides with a very strong out of phase curve. One more out of phase anomaly at 225E has no accompanying Dip angle or Fraser peak. Horizontal field strength is so erratic on this line, probably due to the proximity of a power transmission line, that no correlation has been made between it and other parameters measured.

8.0 Conclusions and recommendations

Grid A. Minor anomalies can be related to geology. The strong anomalies on line 6+00 N at 120E and on line 7+00 N at 180E, while not lining up perfectly, may be related. The anomaly is open to the south, and the writer feels that the prospectors should extend their survey at least for three more lines in that direction.

Soil sampling the grid is recommended. A line or two of self potential over the anomalous zones would probably tell if sulphides are causing the anomaly. While this method is often scorned due to its simplicity, it is quietly and widely in use, and S.V.Burr, in a paper presented to the 1971 Prospectors and Developers Convention, recommends that all anomalies be tested with this method.

Grid B. The flat dips on this grid seem to indicate that the station used for the survey was not close enough to perpendicular to the survey lines, which may have attenuated the readings. The weak profiles may well be a lot stronger. The interesting thing about this grid are the very high out of phase readings on the two lower lines.

This grid should be re-surveyed using two different, orthogonal stations. If the anomalous zones persist, then another method should be used to find correlations.

In any case, the writer feels that an extension of this grid is necessary to fully understand the present anomalies.

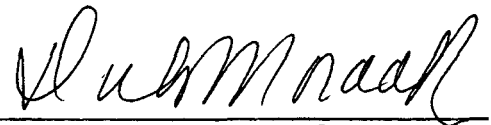
Statement of Costs

4 man days on grid @ 150.00/day	\$600.00
4 man days VLF Survey @ 150.00?day	\$600.00
4 days 4x4 truck @ 45.00/day	\$180.00
Fuel expense	\$ 40.00
VLF rental, 2 weeks @ 100.00/week	\$200.00
Materials	\$ 90.00
Zeroxing	\$ 50.00
Reprographics	\$ 25.00
Report compilation, draughting, typing 4.7 days @ 100.00/day	\$470.00
Total	\$2255.00

Statement of Qualifications

I, Dirk N. Moraal, of the city of Kamloops, British Columbia, hereby declare that:

- 1.0 I am a professional prospector and geophysical operator
- 2.0 I have been carrying out my profession continually since 1969
- 3.0 I am a graduate of the B.C. Department of Mines Mineral Exploration Course for Prospectors
- 4.0 This report is based on information supplied by the owners-operators of this mineral claim.

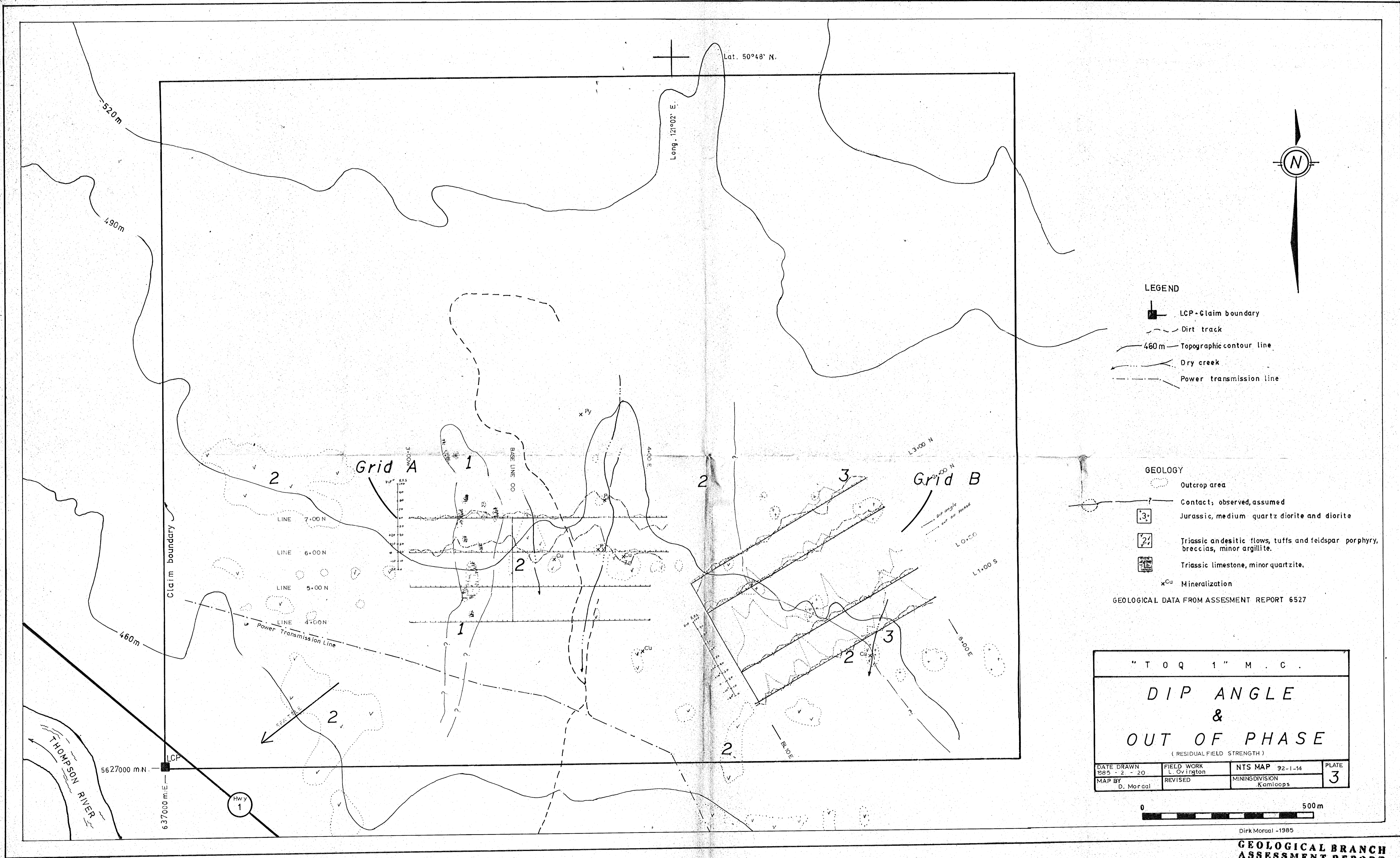


Dirk N. Moraal

Kamloops, B.C. 1985 03 03

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