A GEOCHEMICAL REPORT

on the

CON GROUP OF MINERAL CLAIMS

Hill-Tout Lake - Smithers Area, British Columbia
Omineca Mining Division

Latitude 54°48' North
Longitude 127° West

93 E/14E

(50 Miles South of Smithers)

Including:

CON 1-12 CLAIMS AND CON 1 FRACTION
Record Numbers: 92243 to 92255

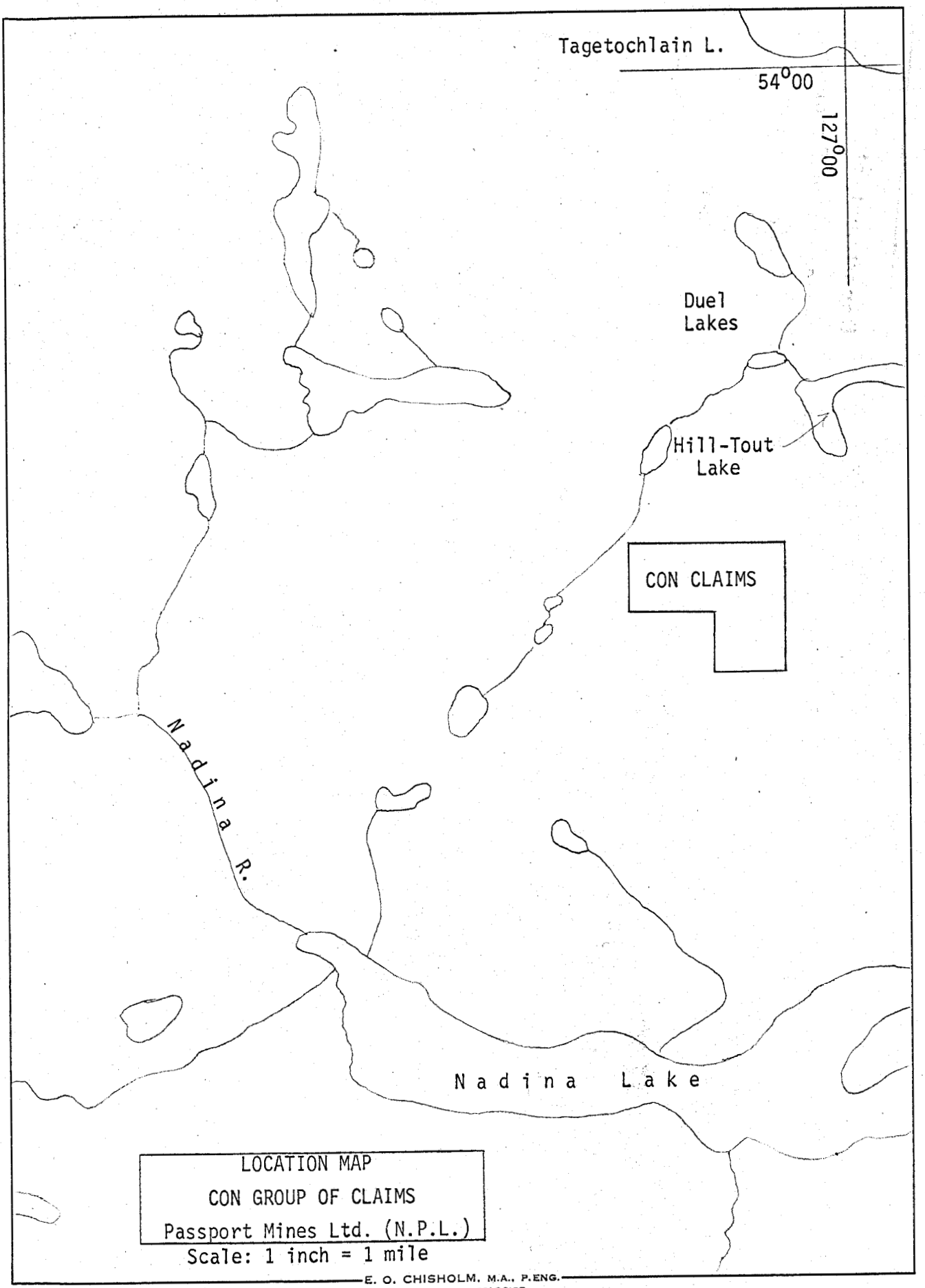
by

E. O. CHISHOLM, M.A., P.ENG.

October 12, 1971

REGISTERED OWNER OF CLAIMS: PASSPORT MINES LTD. (N.P.L.)

WORK PERFORMED BY: J. Todd, 642 Clark Drive, Vancouver, B.C.
C. Soux, 642 Clark Drive, Vancouver, B.C.
P. Fraser, P.O. Box 369, Houston, B.C.



LOCATION MAP

CON GROUP OF CLAIMS

Passport Mines Ltd. (N.P.L.)

Scale: 1 inch = 1 mile

E. O. CHISHOLM, M.A., P.ENG.
CONSULTING GEOLOGIST

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SUMMARY

During June and July 1971 a geochemical survey was carried out on the Con Group of claims near Hill-Tout Lake, Smithers area, by James Todd and associates for Passport Mines Ltd. (N.P.L.), the registered owners of the claim group. A grid consisting of 9 miles of picket lines was sampled at 200 foot intervals on claims Con 1, 2, 3, 4, 5, and 7. The remaining claims, Con 6, 8, 9, 10, 11, 12 and Con 1 Fraction were sampled on lines spaced 1000 feet apart with samples taken at 500 foot intervals. Samples were assayed for copper using an Atomic Absorption unit. One potentially interesting copper anomalous area was outlined on the southeast corner of Con 4 claim and three small anomalies on claim Con 1. These should be investigated further by trenching to determine their significance.

LIST OF CLAIMS

Claim Name	Record Number
CON 1-12	92243-92254
CON 1 Fraction	92255

LOCATION AND ACCESS

The mining claims under discussion are located a half-mile south of Hill-Tout Lake, Longitude 127° west, Latitude 54° 48' north, 50 miles south of the town of Smithers, British Columbia. It is accessible to within 4 miles by logging roads off an all-weather development road to Nadina Lake. A float plane can be landed on Duel Lakes, a distance of one mile from the claims.

Reference Maps:

1. G.S.C. 1064A, Whitesail Lake Area, B.C. 4 mile(Geology.
2. G.S.C. 971, Smithers-Fort St. James, B.C. 8 mile(Geology).
3. N.T.S. 93E, Whitesail Lake, B.C. 4 mile (Topography).

TOPOGRAPHY

The topography is moderate with vegetation covered slopes and open swampy valleys. Most of the area can be traversed by foot. There is sufficient talus to facilitate road building. Outcrops are abundant on hilltops but a dense forest cover is present and less than 5% of rock is exposed. The overburden in most cases appears to be light and can be removed by shallow trenching generally.

The elevation and topography will allow year-round exploration to be carried out. The showings examined were at lake level around 3000 feet. An elongate stock of granodiorite intrusive forms a hill feature to the south of the property. The area is extensively glaciated and the main ice movement was easterly but conforms locally to the valleys.

Climate is moderate with mild summers and cold winters lasting from November to April. Snowfall is light.

HISTORY AND ACTIVITY

The Smithers Area is the scene of intense exploration for porphyry type copper and molybdenum deposits during the past few years and the following properties are under active exploration at the present time within a radius of 50 miles of the property:

Huckleberry	Kennco Explorations
Whiting Creek	"
Bergette	Frontier Explorations Ltd.
Berg	Kennco Explorations
Nanika Lake	Quintana Minerals
Ox Lake	Silver Standard Mines
Haven Lake	Phelps-Dodge Corp.
Hudson Bay Mt.	Climax Molybdenum Corp.
Serb Creek	Amax Exploration
Goosly Lake	Kennco Explorations
Lucky Ship	Amax Exploration
Granisle Copper	Granby Mines (producer)

Bell Mine, Newman Peninsula - Noranda (producer)

G E O L O G Y

There is very little bedrock exposed on the Con Group of claims and most of the claim group is covered by glacial debris, fluvial deposits, bog deposits, soil and vegetation. The country rock is coarse to medium grained fragmental volcanics, andesites and felsitic rocks of the Hazelton Group. These rocks have been intruded by at least two types of intrusive rocks. The more abundant type forms small outcrops and outcrop areas of differentiated granitic rock with compositions varying from quartz monzonite to grano- or quartz diorite. The less abundant type, exposed in only one location, is a coarse feldspar porphyry that is probably a local dyke.

Prominent linear features may reflect major geologic structures. Long narrow valleys trending in east/west and northwesterly directions cut the property. Evidence from the different lithologies on the north and south sides of the gulley in the northeast corner of the property suggests that fault displacement is appreciable.

Intrusive Rocks:

The main exposures are in an outcrop area that forms the topographic high in the south-central part of the claims. The rock is a quartz monzonite porphyry which changes to a finer more even grained

granodiorite or quartz diorite. The finer grained is more mafic rich, and as seen in the most northerly exposures of the outcrop area and may indicate a marginal or contact phase of the intrusive stock.

To the south the rock is a coarser grained porphyry. Alteration has destroyed the mafic contituents, bleached the rock, partially kaolinized the feldspars and partially or totally oxidized the sulphides. The alteration does not look exceedingly deep nor pervasive and probably does not exceed a few feet in depth. At surface the gossan has an overall light coloured jarositic appearance. The alteration intensity progressively increases from the northern to southernmost rock exposures.

One small outcrop of the same porphyritic quartz monzonite was seen in the southeastern part of the claims and there it appeared to be fresh unaltered porphyry with sulphides absent.

The other minor intrusive rock type is a dark grey porphyry with 20-30% light grey to buff plagioclase phenocrysts up to 1 centimeter in length. The outcrops are in the north-central part of the claims and are bounded to the west and east by volcanics. The small elongate outcrop area, subtrachytic texture and general appearance of the rock suggest that the feldspar porphyry is a dyke phase.

Hazelton Rocks:

The Hazelton country rocks can be divided into four types on the basis of their appearance and locations. In the northeast corner of the claims the sequence consists of northeasterly striking west dipping coarse clastic volcanic breccia, agglomerate and intercalated tuff. South of these coarse clastic rocks, and probably separated from them by a northwesterly trending fault, light grey altered pyritic rocks are exposed. These rocks occasionally have relict clastic fragments but are generally bleached and pyritic. They are believed to be hydrothermally altered volcanics and tuffs. Outcrops of this type often weather light grey with a thin chalky white exterior and contain small gossanous zones.

To the west and south of the altered pyritic rocks are grey to green andesites, fine fragmental volcanics and tuffs, with possibly some sedimentary rocks. In the extreme southeast corner of the claims the rocks are rhyolitic or felsitic volcanics. The outcrops are tan to cream coloured with a thin chalky weathered surface that in a few outcrops shows faint flow banding. The fresh rock is a buff to tan aphanitic flow rock. No phenocrysts or crystallites could be recognized but small amounts of fine grained syenite are disseminated throughout the rocks.

Glacial Deposits:

Glacial deposits cover the entire southwestern portion of the claims and the east central region along the creek gulley. The deposits form from eskers and outwash plains with pebble to cobble sized gravels. Swamp and bog occur in the central region between the glacial deposits along the prominent gulleys that transect the property and in the low lying country along the northwest corner of the claims.

Structural Features:

Broad linear depressions are the most prominent topographic-structural features in the region. The east/west valley in the southern part of the claims forms a 300-400 foot wide swampy valley. All the main intrusive rock exposures lie adjacent to this feature. In the northeast corner of the claims a northwesterly trending gulley 100 feet wide separates altered pyritic rocks, volcanics and tuffs from the weakly altered coarse fragmental volcanics to the north.

Mineralization:

Disseminated pyrite is found throughout most of the claim group. It occurs in quartz monzonite porphyry, bleached altered volcanics and in the fine tuffs, andesites and felsitic rocks in the southeast part of the claim group. Up to 2% pyrite by volume was observed in the altered volcanics.

Chalcopyrite is found in minor amounts in the more mafic phases of the quartz monzonite porphyry intrusive, in the altered pyritic

volcanics in the central and east central part of the claims, and with pyrrhotite in a tourmaline alteration zone in the felsitic rock in the southeast corner.

GEOCHEMICAL SURVEY

A geochemical soil survey was carried out over the claim group totalling 67,100 linear feet of line as shown on the attached grid, Fig. 1. Detailed work was carried out on a grid consisting of 9 miles of picket line spaced from 200 to 400 feet (Fig. 2) apart and samples at 200 foot intervals on Claims Con 1, 2, 3, 4, 5, and 7. The remaining claims Con 6, 8, 9, 10, 11, 12 and Con 1 Fraction were sampled on lines spaced 1000 feet apart and samples at 500 foot intervals. 289 soil samples were taken for assay. All lines were run in a north/south direction and all sample locations were flagged on the ground. Samples were taken with a stainless steel auger from the "B" soil horizon where possible. In some areas the "B" horizon was not present, and the "A" horizon was sampled. Samples were placed in heavy kraft envelopes and shipped to Technical Service Laboratories, a Vancouver commercial laboratory, for assay by atomic absorption techniques. This process includes drying the samples, screening to -80 mesh and analysis for copper using perchloric digestion and atomic absorption determination of the copper present in the soil sample. The results of the work are shown on Figure 1 and Figure 2.

DISCUSSION OF RESULTS

The background value for copper on the claim group is 30 parts per million in copper. Threshhold values of interest are from 50 to 60 parts per million and anomalous values classed as above 100 parts per million. Based on these values, an anomalous copper area was outlined in the southeast corner of claim Con 4 as shown in Figure 2. Its extent is approximately 600 feet in diameter. Closer sampling will be necessary in this area to further define its boundaries.

Three smaller anomalous zones consisting of two sample locations only are indicated on Claim Con 1. These anomalies are closely grouped together and are individually 200 feet in diameter. They may indicate a target area of approximately 800 feet in diameter anomalous for copper.

The anomalous areas so defined should be trenched to bedrock and sampled to determine their cause.

Respectfully submitted,

Edward O. Chisholm, P.Eng.

APPENDIX I

SUMMARY OF COSTS

Linecutting and Sampling	$ 2,224.40
Geochemical Analysis of 289 Samples @ $1.85 ea	534.65
TOTAL	$ 2,759.05

APPENDIX II

AFFIDAVIT SUPPORTING SUMMARY OF COSTS

I, Edward O. Chisholm, Consulting Geologist of 821-602 West Hastings Street, Vancouver 2, B.C., do hereby state that to the best of my knowledge and belief, the statement of costs presented in Appendix I of this report is both true and correct.

DATED AT VANCOUVER THIS 20th DAY OF OCTOBER, 1971

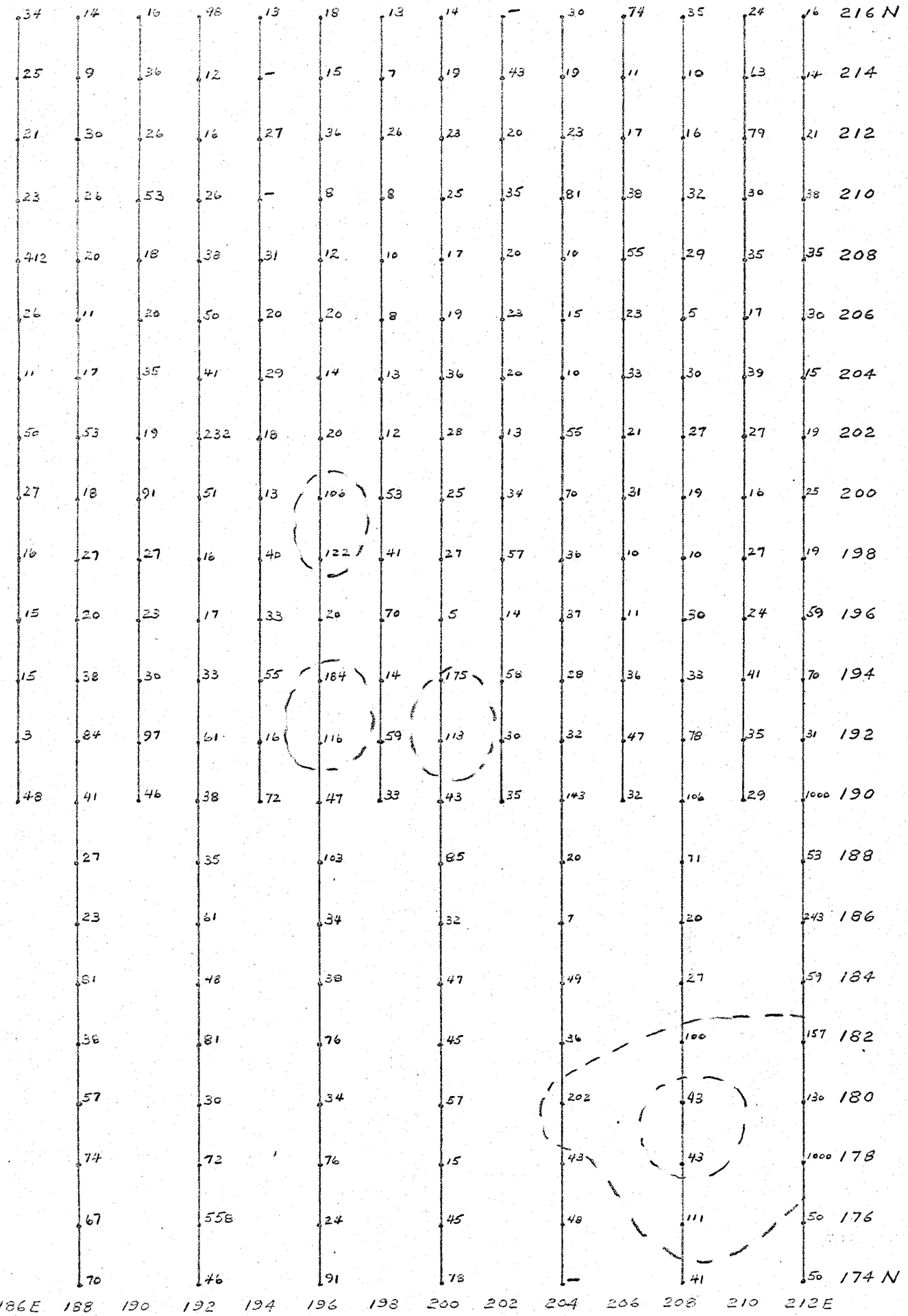
Edward O. Chisholm, P.Eng.

Witness

APPENDIX III

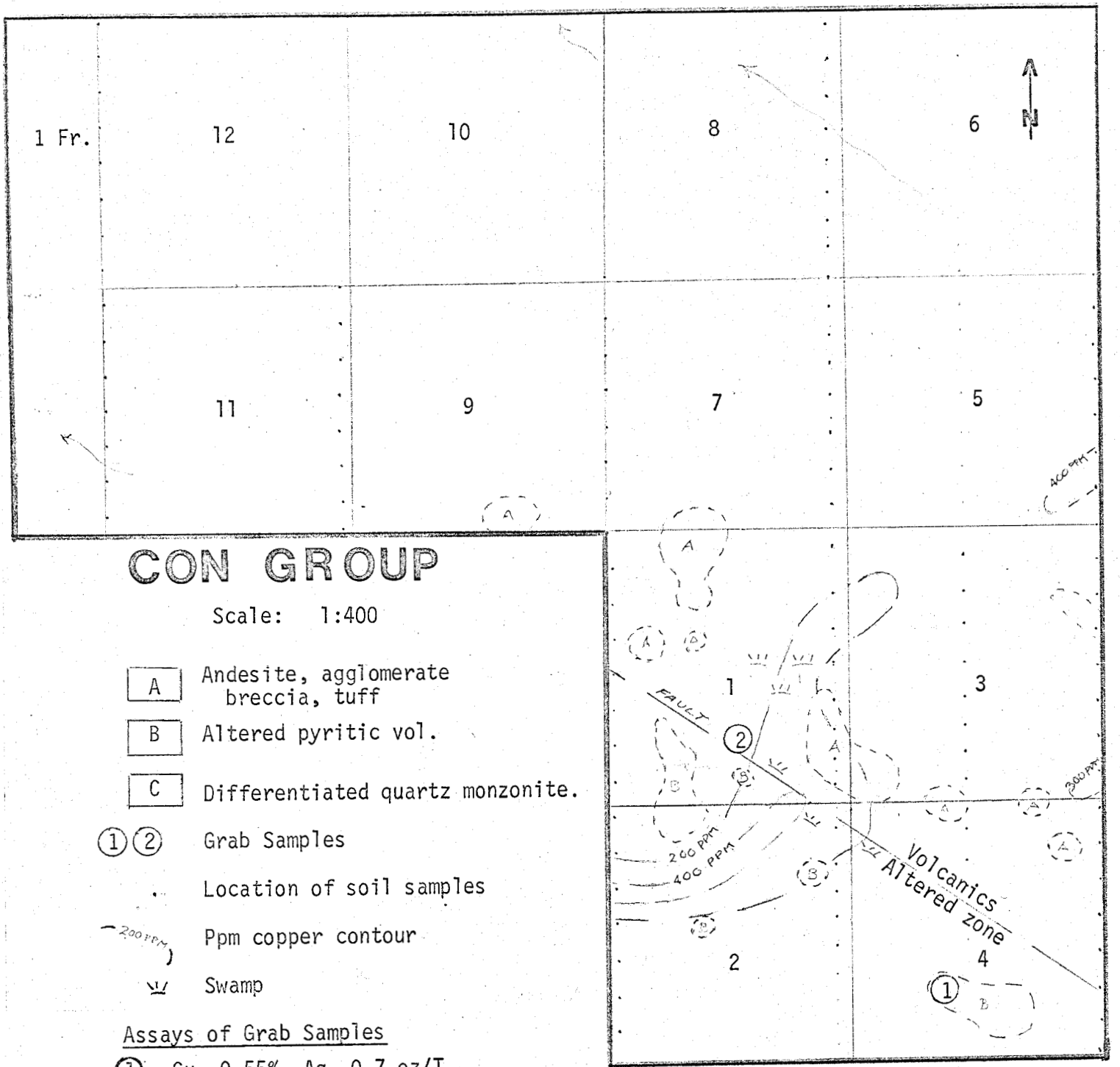
PERSONNEL

James Todd	Party Chief	642 Clark Drive Vancouver 6, B.C.
Cristian Soux	Sampler	c/o 642 Clark Drive Vancouver 6, B.C.
Philip Fraser	Linecutter	Box 369 Houston, B.C.



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3343 MAP #3

PASSPORT MINES LTD. (N.P.L.)
Geochemical Survey
Shown in Parts per Million
Figure 2
Scale: 1" to 400'



CON GROUP

Scale: 1:400

A	Andesite, agglomerate breccia, tuff
B	Altered pyritic vol.
C	Differentiated quartz monzonite.
① ②	Grab Samples
.	Location of soil samples
200 PPM	Ppm copper contour
	Swamp

Assays of Grab Samples

① Cu. 0.55%, Ag. 0.7 oz/T.

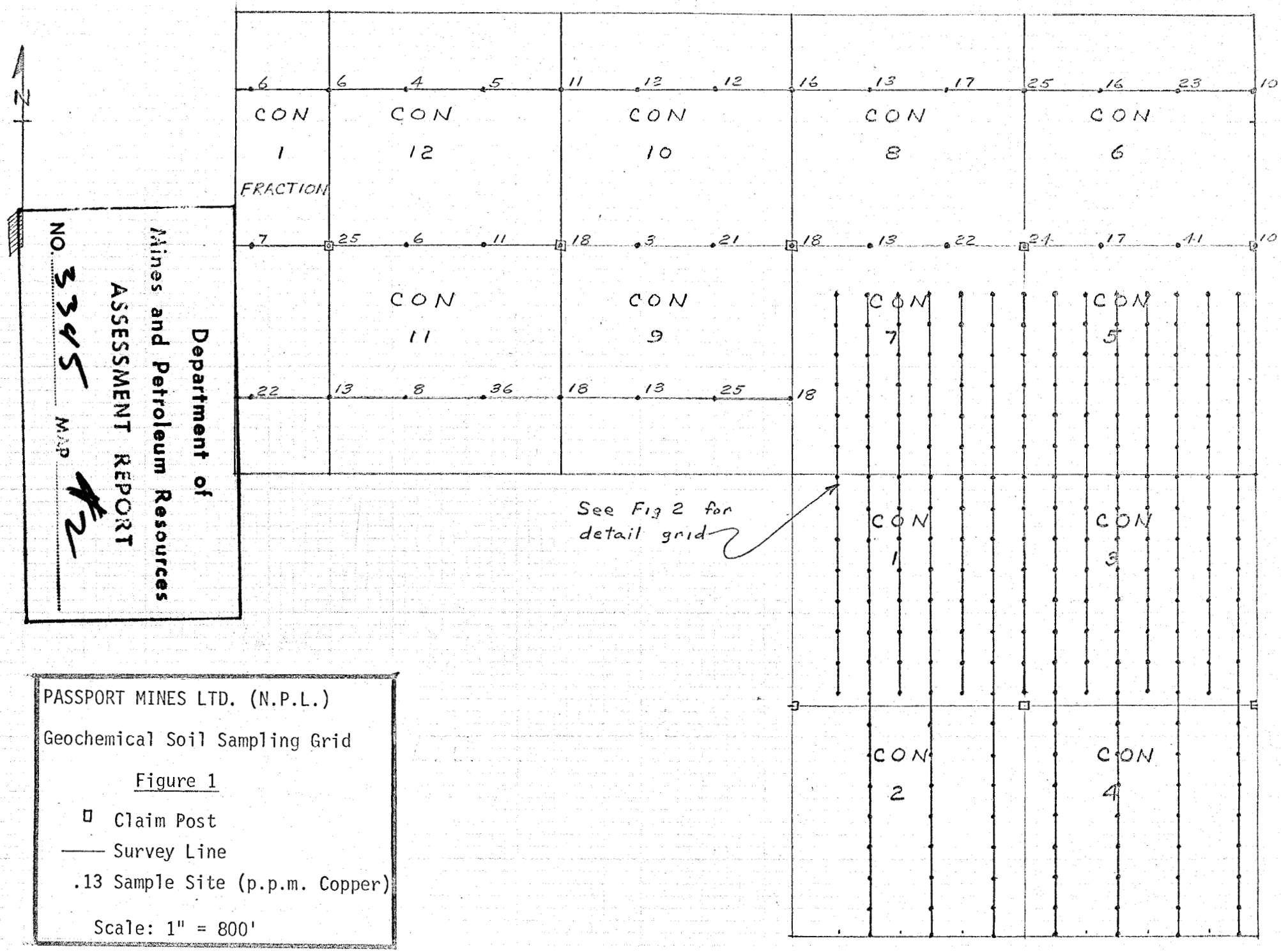
② Cu. 0.14%, Mo. 0.04%

PASSPORT MINES LTD. (N.P.L.)

Geological & Geochemical Plan
CON CLAIM GROUP

Hill-Tout Lake
Smithers - Houston Area
Omineca Mining Division, B.C.

Figure 4



Department of Mines and Petroleum Resources

ASSESSMENT REPORT NO. 3345 MAP #2

PASSPORT MINES LTD. (N.P.L.)

Geochemical Soil Sampling Grid

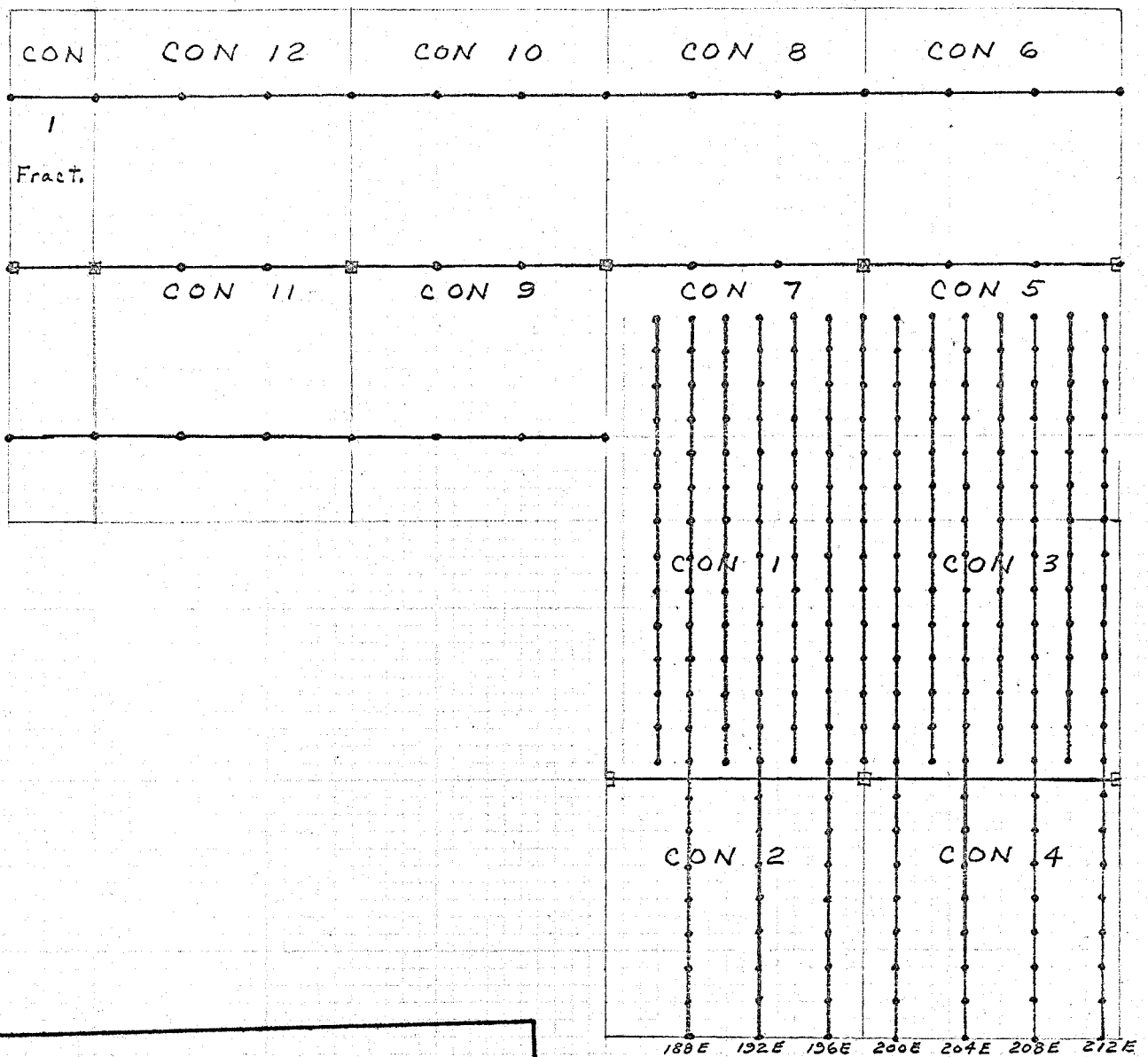
Figure 1

□ Claim Post

—— Survey Line

.13 Sample Site (p.p.m. Copper)

Scale: 1" = 800'



PASSPORT MINES LTD. (N.P.L.)

Figure 3

Geochemical Soil Sampling Grid

□ Claim Post ——— Cut Line

. Sample Site

Scale: 1" = 1,000'