# GEOLOGICAL-GEOCHEMICAL ASSESSMENT REPORT

MQ 1 to 4

YE77547 to YE 77550

NTS 116-C-7

DAWSON MINING DISTRICT

Registered Owner
Angus Woodsend

Centred on
64˚22’40”
140˚37’50”

Work performed in June, July and August 2015
and March 2016.

Work performed on claim YE 77548.

Angus Woodsend
15 April 2016

## SUMMARY

Small scale placer mining is following economically viable gold values. The placer gold provenance appears to be linked to post-Pliocene faulting and a local quartz-diorite intrusive. Samples were taken from small quartz veins revealed in the bedrock of the 2015 mine cut. Stream sediment samples were taken from the back wall of the mine cut.

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## CLAIMS

The property consists of four quartz claims MQ 1 to 4, YE 77547 to YE 77550 as shown on Figure 1. A claim status report is attached.

## ACCESS

Access to the area is via the Top of the World Highway and the Clinton Road. A 4x4 dirt road runs down from the Clinton road to Maiden Creek. An ATV trail continues down the Maiden valley to the placer mine workings. Claim post locations and access roads are shown on Figure 2.

## HISTORY

Placer gold was discovered here by Andrew Maiden in September 1886. The gold had accumulated on a bedrock reef that crossed the existing creek. Attempts to trace the values back to their upstream source were unsuccessful. The Rabbit Creek (Bonanza) discovery in 1896 shut down all other Yukon and Alaskan camps overnight, and Andrew Maiden along with almost every other miner and prospector in the country at the time left for the Klondike. His Fortymile discovery was abandoned and forgotten.

In 1957 an asbestos occurrence was staked on Clinton Creek. During its initial development a winter cat road was used to freight in supplies. This road ran down the Maiden Creek valley before going over to the mouth of Mickey Creek, crossing the Fortymile River, and running up Clinton Creek. It was soon supplanted by an all-season road that followed the high ground between Maiden Creek and Mickey Creek. This beautifully built road is still used today.

In 1993 (?) Yukon Forestry used bulldozers to clear a firebreak on the west side of Maiden Creek. The cat skinners were said to have found gold at their creek crossing.

In 2002 the author, Angus Woodsend, came down the firebreak trail with a Nodwell-mounted auger drill and began prospecting the valley floor. A small amount of payable ground was found in 2003. Extensive auger drilling eventually found more encouraging values in 2010. The two best holes recovered gold weighing 84.9 mg and 59.0 mg. Six hundred feet downstream from the drill line there were old ditches and channels and a circular swampy pond with axe-cut tree stumps around it. These were the remains of Andrew Maiden’s workings.

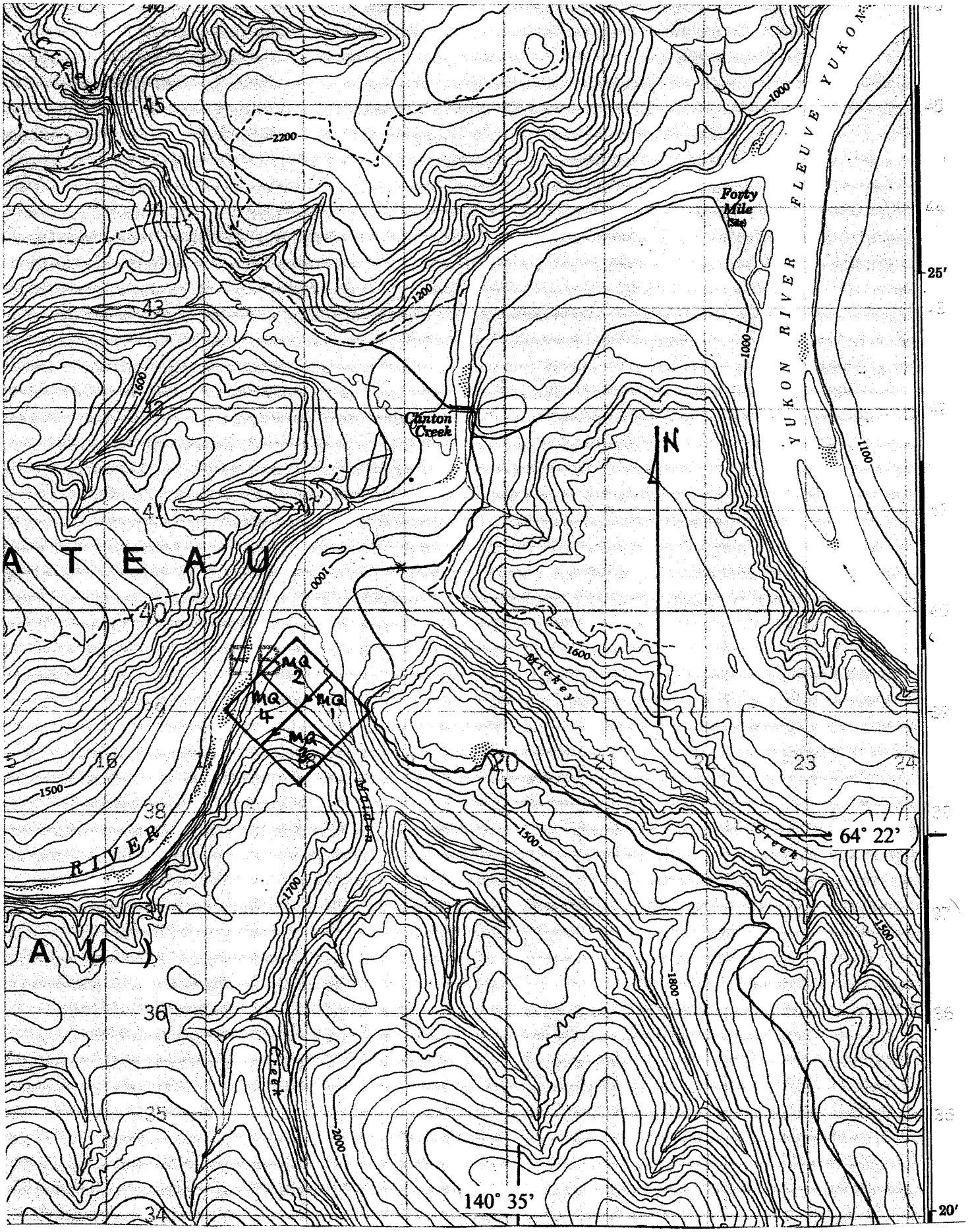



FIGURE 1 CLAIM MAP SCALE 1:50,000

| | |
|---|---|
| MQ 1 | YE77547 |
| MQ2 | YE77548 |
| MQ3 | YE77549 |
| MQ4 | YE77550 |

Yukon
Energy, Mines and Resources

# Claim Status Report

09 April 2015

| Claim Name and Nbr. | Grant No. | Expiry Date | Registered Owner | % Owned | NTS #'s | Grouping | Permit |
|---|---|---|---|---|---|---|---|
| R P MQ 1 - 4 | YE77547 - YE77550 | 2016/04/12 | Angus Woodsend | 100.00 | 116C07 | [illegible]03443 | |

**Criteria(s) used for search:**

CLAIM DISTRICT: 1000002 CLAIM NAME: MQ CLAIM NUMBER (FROM & TO): 1 & 4 CLAIM STATUS: ACTIVE & PENDING REGULATION TYPE: QUARTZ

Total claims selected : 4

Left column indicator legend:

R - Indicates the claim is on one or more pending renewal(s).

P - Indicates the claim is pending.

Right column indicator legend:

L - Indicates the Quartz Lease.

F - Indicates Full Quartz fraction (25+ acres)

P - Indicates Partial Quartz fraction (<25 acres)

D - Indicates Placer Discovery

C - Indicates Placer Codiscovery

B - Indicates Placer Fraction

It took Groundhog Exploration (Woodsend's company) four years to mine from Andrew Maiden's discovery up to the drill line and confirm the dill hole values. The placer gold was found on bedrock at the base of a thick gravel sequence which, in the Alaskan Fortymile, would be called a high terrace gravel.

## REGIONAL GEOLOGY

The area was mapped by Mortensen (GSC Open File 1927) who identified Devonian to Mississippian rocks of the Yukon-Tanana Terrane. To the south there are two granitic intrusives which have been dated from 69.8 Ma (Swede Dome pluton) and 59.4 Ma (Pluto stock). Figure 3 is a regional geology map taken from Mortensen (1988).

## SURFICIAL GEOLOGY

The property lies within a fault-bounded sedimentary basin which has been deeply incised by the Fortymile River and its tributaries. This rapid down-cutting, which is still ongoing, was caused by the reversal of the Yukon River in the middle Pleistocene, approximately 190,000 years ago. Prior to this the paleo-Fortymile River, running from west to east, drained a flat-lying basin and deposited a thick succession of unconsolidated poorly stratified gravels. These gravels have been well described by Yeend (USGS Bull 2125). They are thought to be of the same age as the Klondike White Channel Gravels, between 3 to 5 million years, or Pliocene.

Due to the recent rejuvenation of the Fortymile these early gravels are now some 550 feet above the current river and creek levels and were therefore called high terrace gravels by Yeend. In the area of the Maiden quartz claims they have been brought down to the same level as present day Maiden Creek by a stepped succession of east-west faults.

Several smaller east-west faults have been found during placer mining and these are shown on the attached 1″ = 100′ mine plan, Figure 4. These faults were identified because of a small change in bedrock elevation, or because they carry running water.

## 2005 GEOCHEMISTRY

The attached Figure 5 shows the geochemical results for gold in stream sediments and soils taken by Groundhog Exploration in 2005. There is a cluster of anomalous values west of lower Maiden Creek. Of particular interest was a value of 296 ppb taken from a north-south trending draw now considered to be the product of recent faulting.

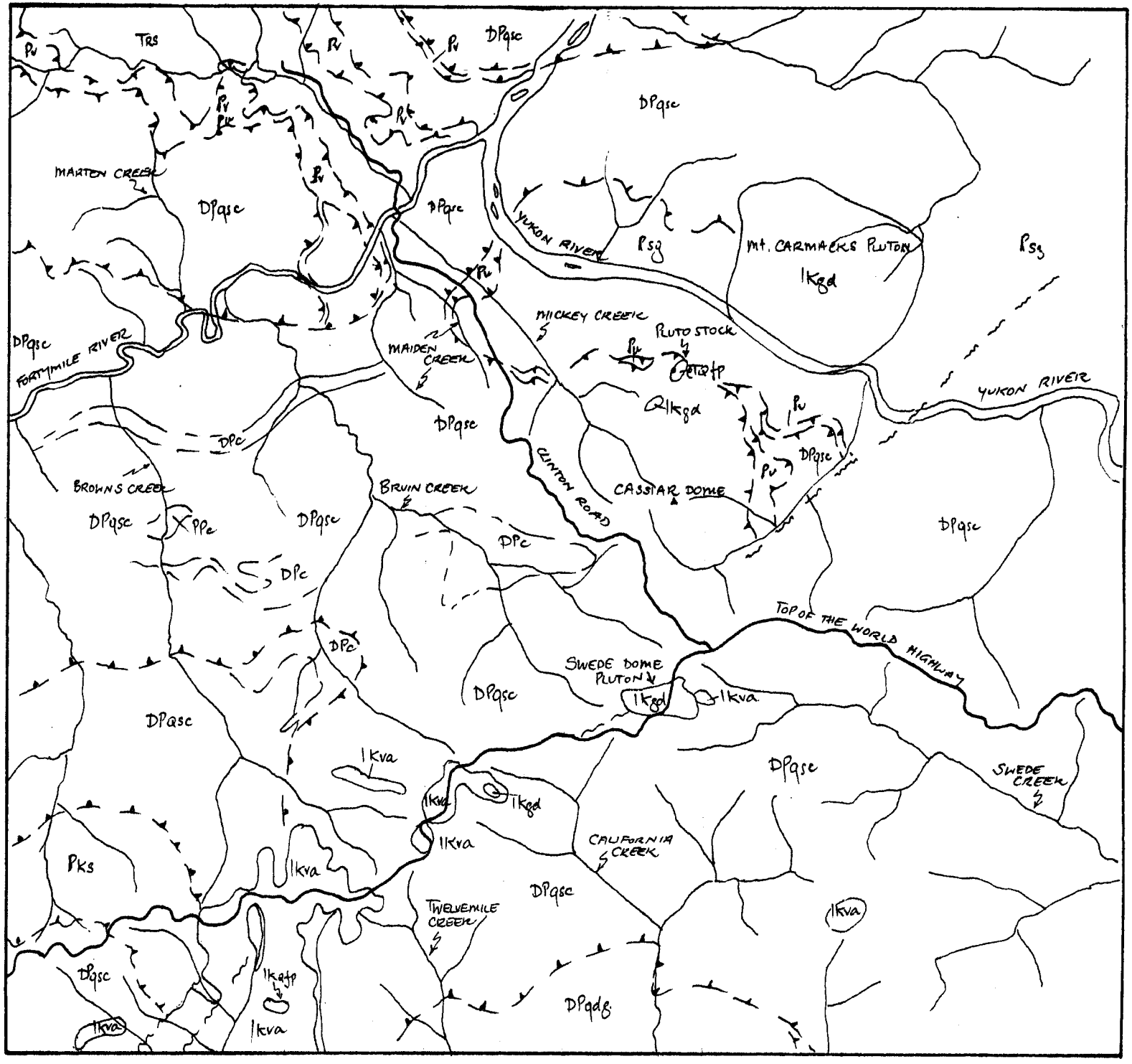



FIGURE 3.

## GEOLOGY

PARTS OF 116, B.C.

**TERTIARY**

eTqfp quartz-feldspar porphyry

**LATE CRETACEOUS**

lKva Andesite
lKgd Granodiorite

**TRIASSIC**

TRS argillite, sandstone

**PALEOZOIC**

Pu serpentinite.
Pv greenstone.
DPqsc Nasina schists.
DPc Nasina marble.

after MORTENSEN J.K.
G.S.C. OPEN FILE 1927

SCALE 1: 250,000

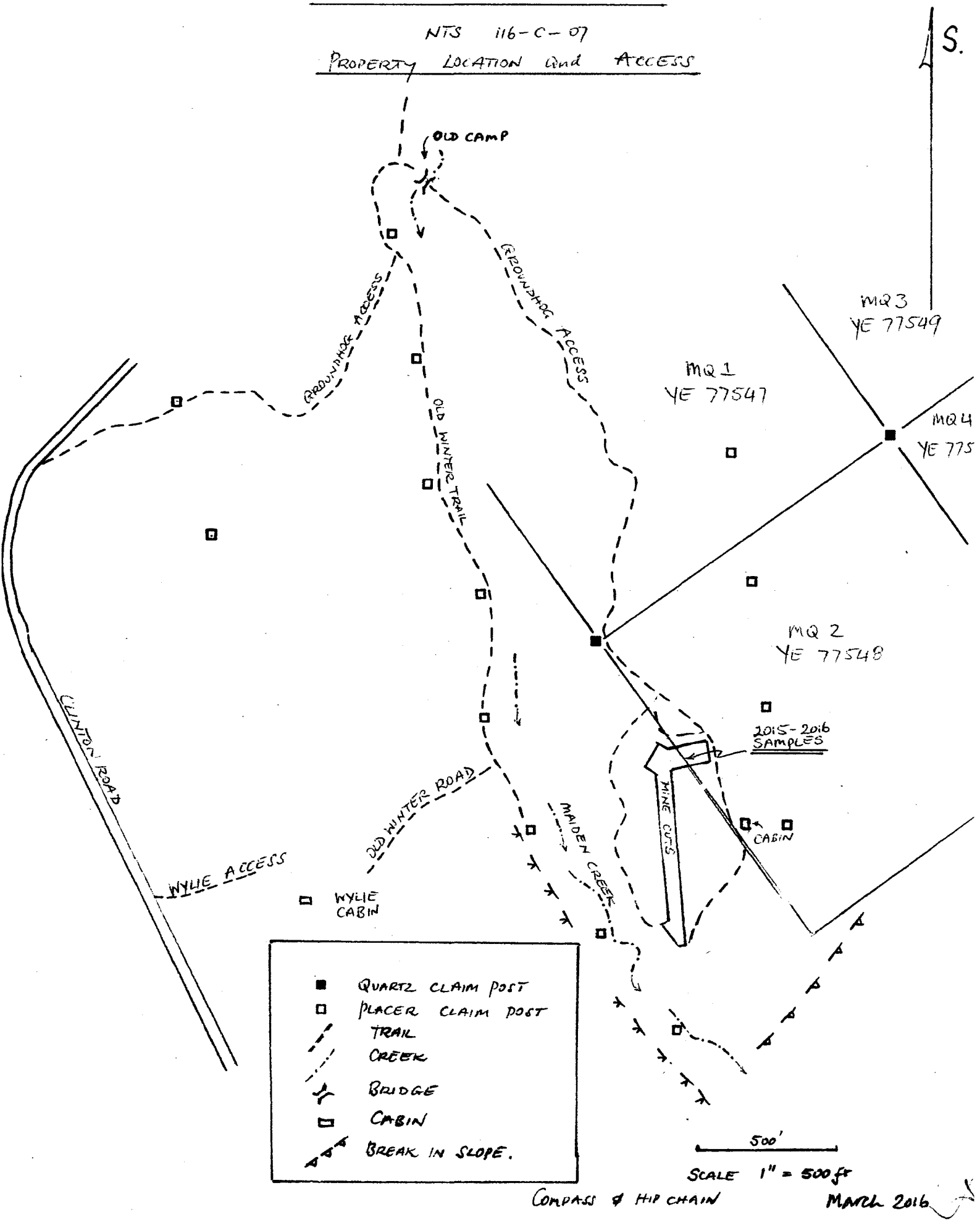
NOV. 2005

# FIGURE 2.

## MQ 1 to MQ 4 QUARTZ CLAIMS

NTS 116-C-07

PROPERTY LOCATION and ACCESS



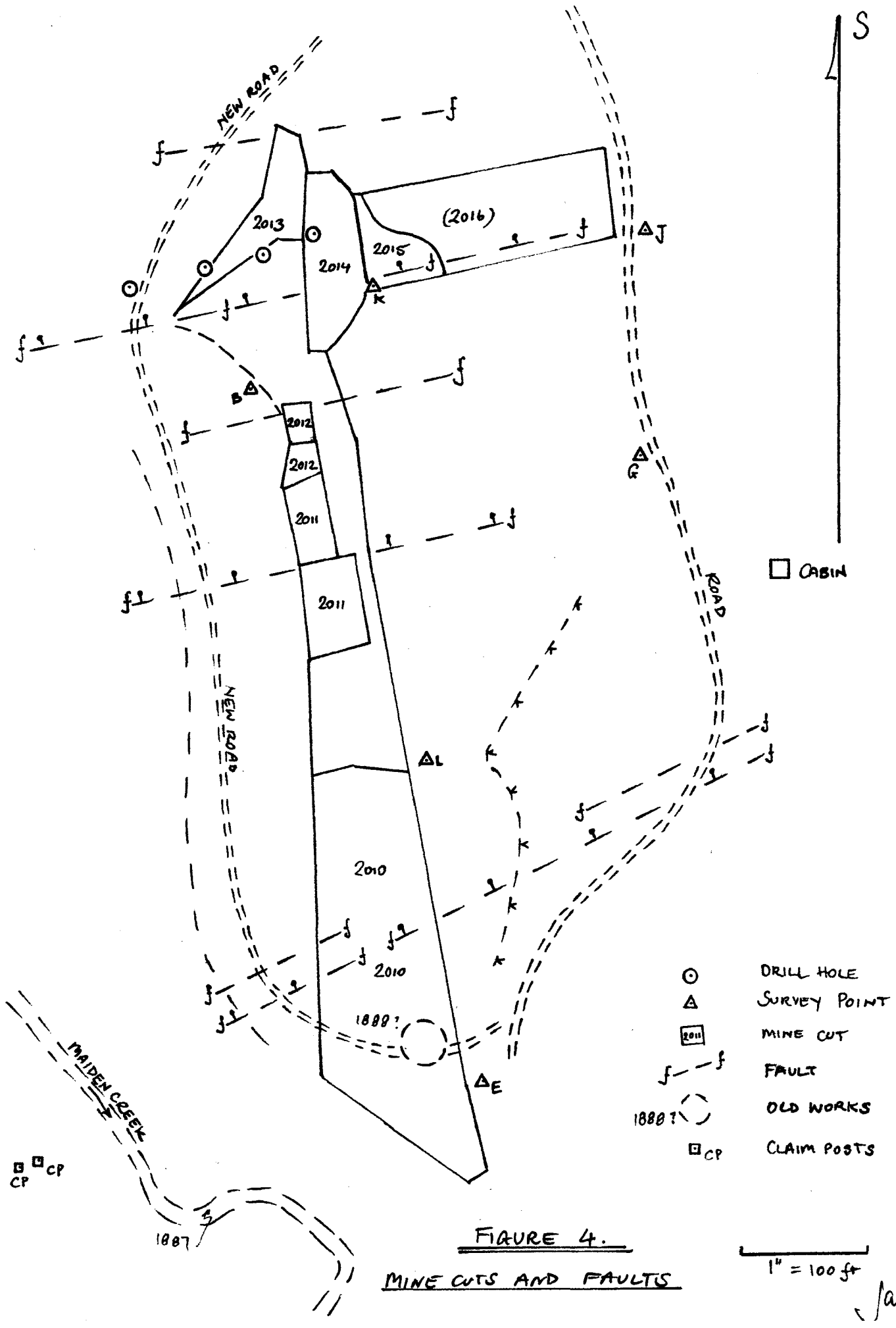
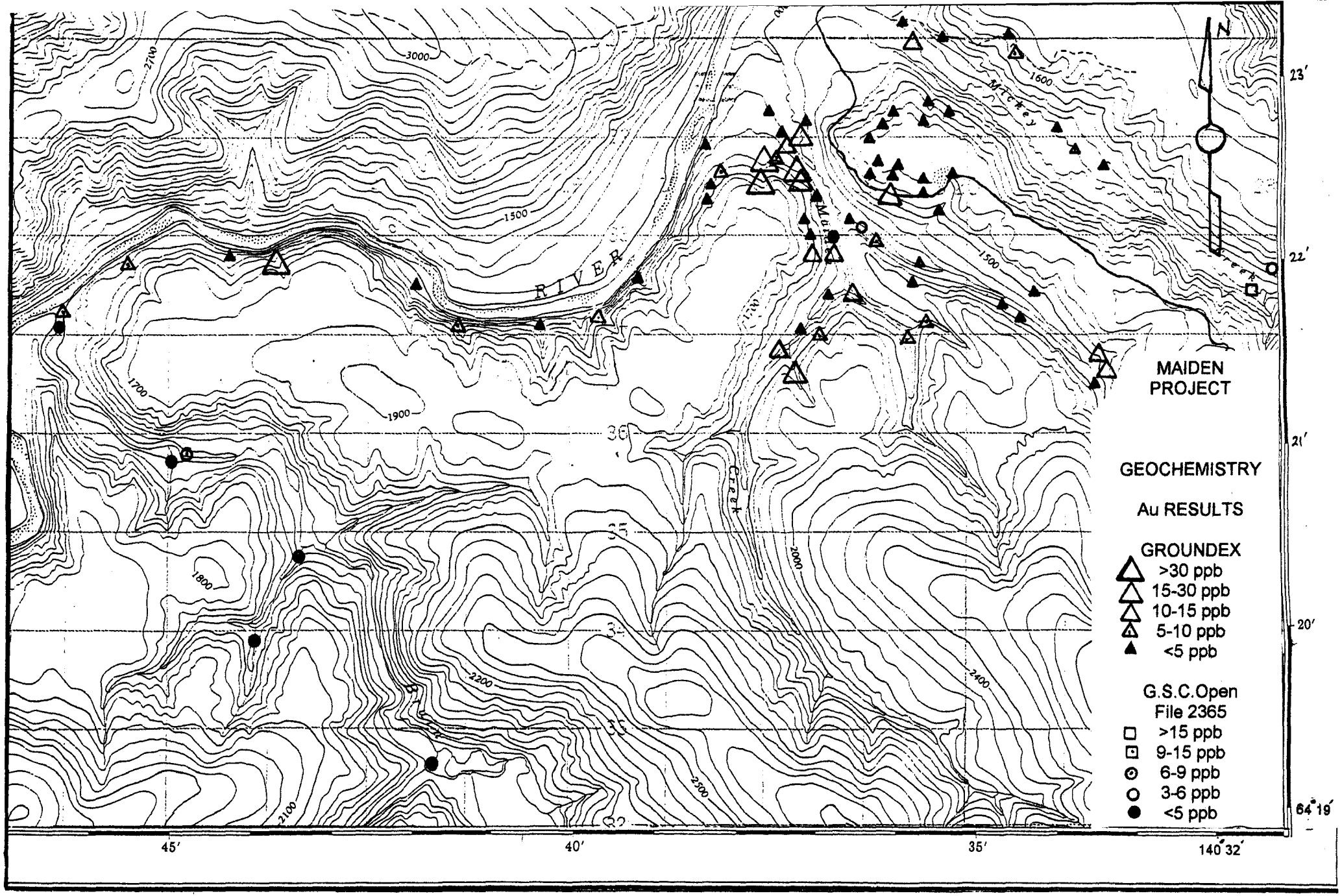



FIGURE 4.

MINE CUTS AND FAULTS

Jan 2016




Scale 1:50 000 Échelle

Miles 1 0 1 2 3 Milles

Metres 1000 0 1000 2000 3000 4000 Mètres

FIGURE 5. GEOCHEMISTRY 2005

Jan 2006

## 2015 GEOCHEMISTRY

Four rock chip samples were taken from quartz vein material found in the graphitic phyllite bedrock exposed by placer mining. The veins are small, discontinuous and trend generally east-west (085˚) and parallel a fault which forms the north limit of the paying placer gravels. The samples were analyzed by ALS Minerals (Chemex) for gold and 50 multi elements. One sample was slightly anomalous in gold (109 ppb).

Two stream sediment samples were taken from the gravels exposed in the back wall of the 2015 mine cut, the first from 1.3m above bedrock, and the second 10m above bedrock. The first was not anomalous, and the second contained insufficient material for analyses.

## CONCLUSIONS

Because of the almost uniform blanket of deep overburden, ongoing exploration of the MQ claims will be difficult. Mining reveals bedrock in very small increments. Sampling exposed bedrock, sampling drilled bedrock cuttings, and using paleo stream sediment geochemistry will remain limited but useful tools.

## AUTHOR'S QUALIFICATIONS

This report was prepared by Angus Woodsend, whose brief résumé is as follows:

1990 to present. Groundhog Exploration, evaluating placer deposits, primarily in the Yukon, particularly using auger drilling.

1986 to 1990. Consultant, with projects in western Canada, western USA, Mexico, Ecuador, Venezuela and Zimbabwe.

1982 to 1986. Queenstake Resources. 'Engineer' on the Clear Creek dredge, manager of the Preido Hill project, and exploration geologist in western North America.

1976 to 1982. Campbell Resources. Geologist exploring primarily for tin and tungsten in western Canada and Alaska.

1971 to 1976. Messina (Tvl.) Dev. Co., mine geologist and exploration geologist in South Africa, Rhodesia and South West Africa.

1971. Graduated BSc.(Hons.) Geology, Southampton University, U.K.

Angus Woodsend also performed the field work.

Angus Woodsend
7 May 2016.

## STATEMENT OF EXPENDITURES

| | | |
|---|---|---|
| Geologist, sampling mine cut, surveying claims in relation to mine cut, expediting samples, writing report | 1.5 days @ $400/day | $600.00 |
| Analyses by ALS Minerals, receipts attached | | $247.61 |
| | TOTAL | $847.61 |