83-800-12051

Arctic Engineering Services Ltd.

Geological & Mining Engineers

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BOX 59
ATLIN, B.C. V0W 1A0

09-84

GEOLOGICAL & GEOCHEMICAL REPORT

ON THE

GV 15, 23, 24 & 26

MINERAL CLAIMS

ATLIN MINING DISTRICT

ATLIN, B.C.

LATITUDE 59°32'N LONGITUDE 133°30'W

104 N/11W

for

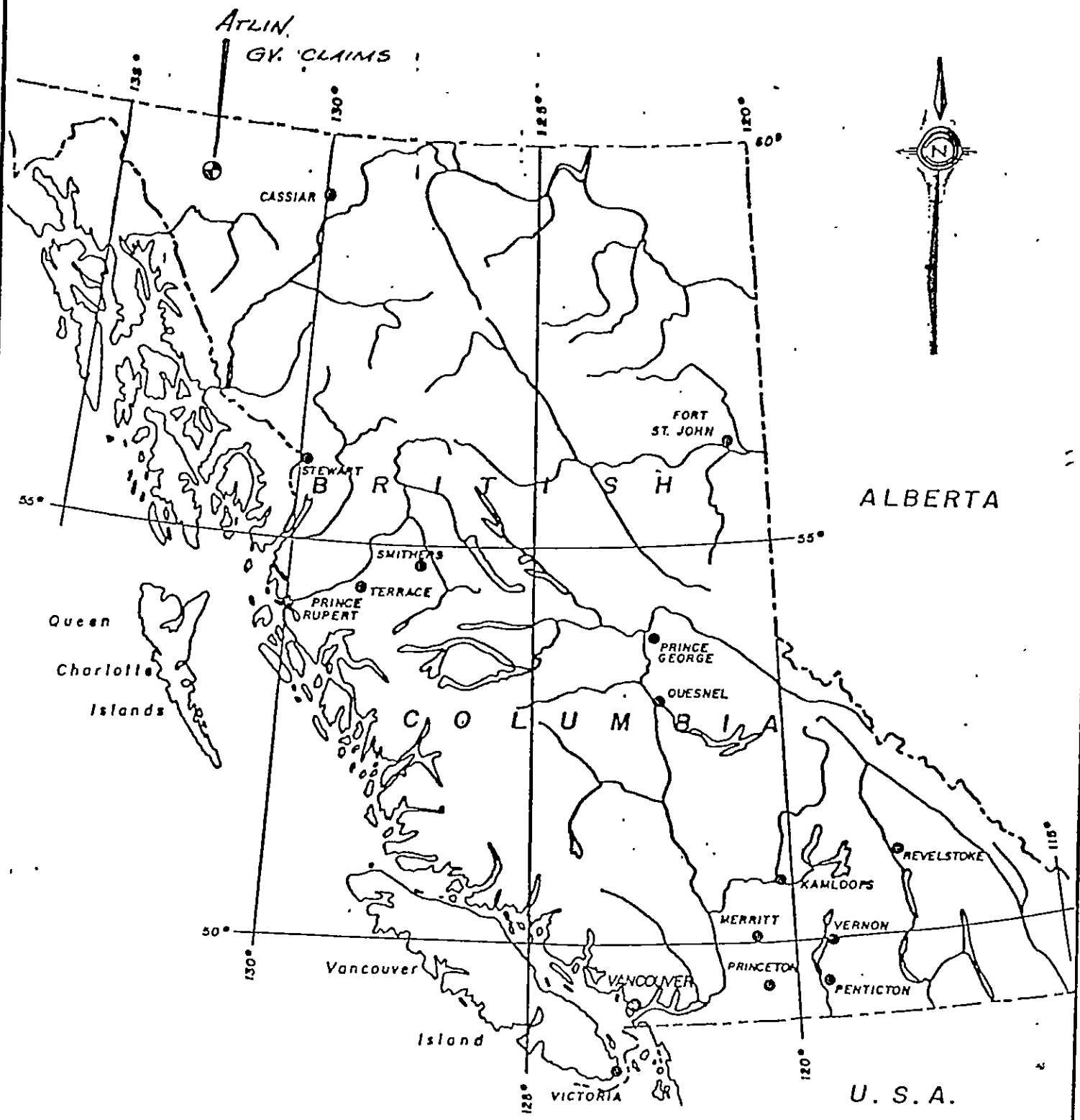
J.M. McFARLAND
9360 Forest Court S.W.
Seattle, Washington
U.S.A. 98136

by

J.E. Wallis, P.Eng.
Arctic Engineering Services Ltd.
Box 59 Atlin, B.C.
V0W 1A0

October 1, 1983

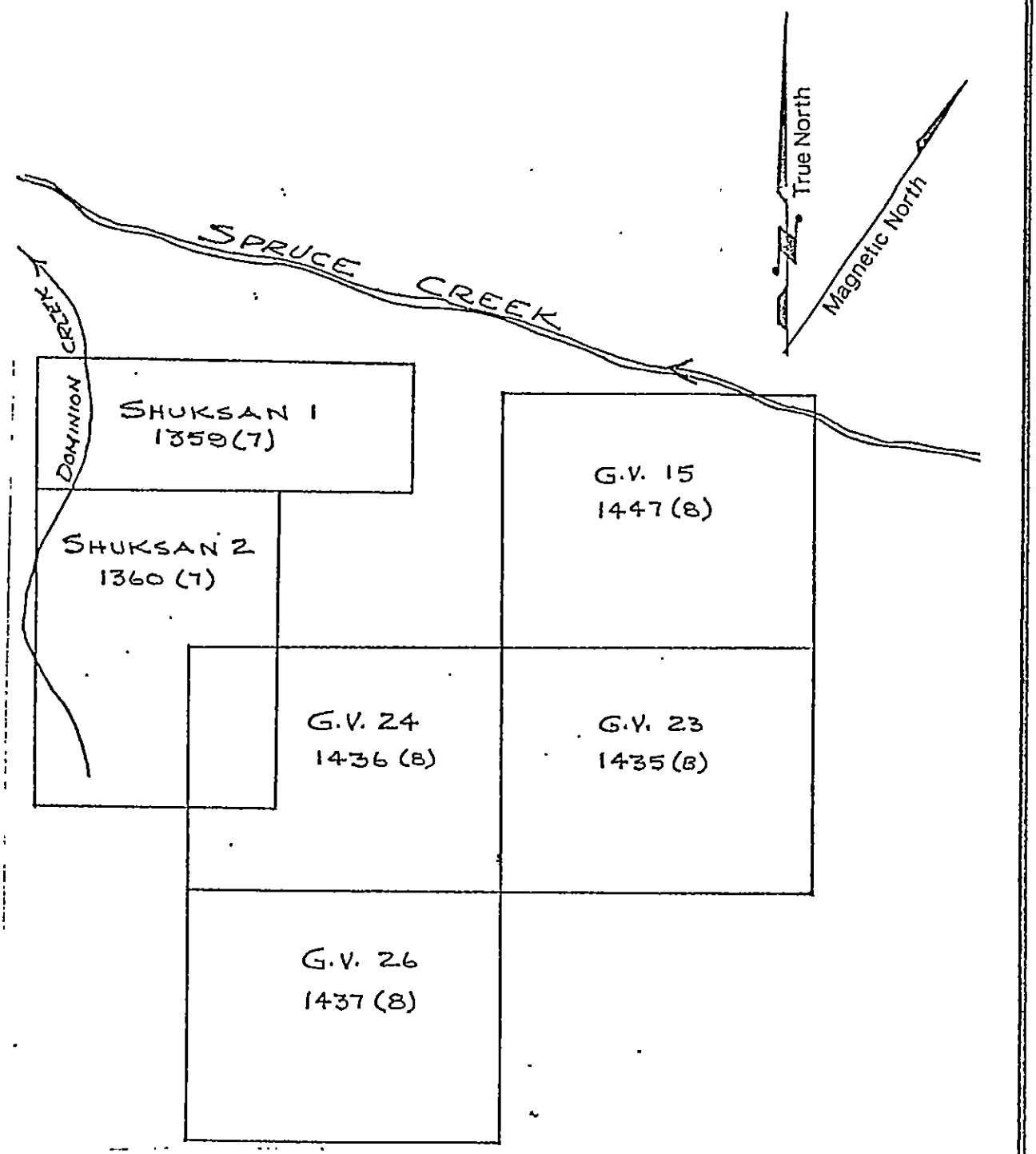
TABLE OF CONTENTS



LOCATION MAP
G.V. CLAIMS

ATLIN MINING DIVISION B.C.

	DATE: OCT 1, 1983
SCALE: 1CM = 87km	



CLAIM MAP

NTS 104 N/11W

Miles 1 .5 0 1 2 Miles

Metres 1000 500 0 1000 2000 3000 Metres

Kilometres .5 0 1 2 3 Kilometres

SCALE

ARCTIC ENGINEERING SERVICES LTD.
BOX 59 ATLIN BRITISH COLUMBIA

INTRODUCTION

In August of 1981, a block of 31 claims were staked in the headwaters of Wright, Otter and Spruce Creeks by Mr. J.M. McFarland to cover the possible source of the gold placers in these creeks. A very preliminary regional geological and geochemical survey of the claim area was undertaken during the 1982 field season with the objective of locating a logical target area.

Although road and trail access to most of the claim area is readily available, outcrops in the area are sparse and are limited to the tops of the ridges and some of the small drainage courses. The bulk of the area is covered with a heavy mantle of glacial tills and fluvial sediments.

Two target areas were located. One of the areas is near the head of Wright Creek and the other near the headwaters of Spruce Creek. This report covers additional reconnaissance work that was undertaken near the head of Spruce Creek during the summer of 1983, more specifically in an area defined as Gold Hill, covered by the GV 15, 23, 24 and 26 Mineral Claims.

Location and Access

The claims consist of 4 blocks of 20 units which effectively cover the Gold Hill area 20 km southeast of Atlin, B.C. Geographical coordinates of the area are approximately 59°32' north latitude and 133°30' west longitude on National Topographic Series map 104N/11W.

Access is via a poor quality gravel road along Spruce Creek to a point some 4000 meters north of Gold Hill.

Topography and Vegetation

Although the Atlin area is located on the east flank of the Coast Range of mountains, the claim area is of moderate relief with Gold Hill forming a well rounded hill. Relief ranges from 3500 feet on Spruce Creek to 5500 feet on Gold Hill.

Treeline in the area is at approximately the 4000 foot elevation. Isolated fingers of spruce and balsam occur between Spruce Creek and timberline, with dense willows in between. The valleys are generally quite swampy. The area above treeline is covered with alpine grasses and some short, dense artic birch.

Glaciation

Most of the Atlin area has been glaciated, and it is important that both the intensity and direction of glacial movement in the area be recognized. Undoubtedly a number of glacial fronts invaded the Atlin area from the southwest, most likely in the form of valley or alpine glaciers. Glacial scouring and removal of tertiary channel gravels is evident in the area to the north along the upper end of Pine Creek and upper Boulder and Ruby Creeks. Examination of the creek gravels on lower Spruce Creek indicates that glaciation did not scour the tertiary creek channels, but covered them with glacial gravels in places up to 100 feet thick. However, along Spruce Creek to the north and east of the claim area, there is no evidence of tertiary gravels in the placer workings. The gravels are, for the most part, well washed glacial gravels. Although there is gold in most of gravels, even those away from the existing stream channels, the best values appear to be along sections of the creek which are contained by obvious bedrock rims. This indicates that the existing streams have reconcentrated the glacial gravels in these channels since post-glacial times. There is some evidence that a small portion of the gold being recovered in some of the upper gravels is residual or more recently deposited.

This indicates that, although the bulk of the gold being recovered in the mining operations along upper Spruce Creek is tertiary in age, a bedrock source of gold located somewhere along the valley continues to release gold into the system.

Ownership

The property consists of 4 mineral claims staked under the Modified Grid System and recorded in the name of John M. McFarland. Details are as follows:

Claim Name	No. of Units	Record No.	Expiry Date
GV 15	20	1447	Aug 21, 1983
GV 23	20	1435	Aug 21, 1983
GV 24	20	1436	Aug 21, 1983
GV 26	20	1437	Aug 21, 1983

All claims are recorded and located on National Topographic Series staking map 104N/11W.

History

The original placer claims in the Atlin camp were probably discovered sometime prior to 1897 and were recorded on Pine Creek in 1898, coincidental with the great Klondike Gold Rush. In its peak year of 1899, the camp boasted some 30,000 residents with active mining operations on most of the surrounding creeks, including Spruce Creek. The lower section of Spruce Creek was mined extensively until the 1930's. As the workings extended upstream, the gold-bearing channel contined to get deeper and was exploited on the upper end by underground mining methods with the discovery of the Noland Mine. This mine continued in operation until the mid 1950's, and was unique in that it was the deepest underground placer mine in North America. The upper workings are some 500 feet below the present surface. At the

time of closure, the miners had lost the pay channel, or more likely, the rich channel had petered out.

Gold lode mining in the district was attempted on the north flank of the mountain just south of lower Spruce in the early 1900's, but the quartz veins proved to be small and discontinuous. Several gold lode occurrences in quartz veins were located on Pine Creek and on the mountain to the north, but the discoveries proved to be insignificant. Of geological significance is the fact that all gold lode veins discovered to date are in the Cache Creek series of rocks. The Cache Creek series can best be described as a mixture of meta sediments and volcanics. This series was recognized in the late 1800's as the Gold Series.

GEOLOGY

Regional Geology

The geology of the Atlin district is well documented by J.D. Aitken in Geological Survey of Canada Memoir 307.

In summary, the Atlin area is underlain by a complex of Permian volcanic and meta-sedimentary rocks known as the Cache Creek series.

Two significant batholiths intruded rocks of this group during middle to late Mesozoic period. These are the Jurassic Fourth of July granodiorite batholith and the Cretaceous Alaskite Surprise Lake batholith.

All rocks examined on the GV 15, 23, 24 and 26 claims belong to the Cache Creek Series.

Lithology

The lithology of the claim groups are best exposed in an anticline structure on Gold Hill. This indicates a basement structure of silicaous argillites and phyllites overlain by approximately 300 meters of limestone overlain by approximately 350 meters of volcanics which are in turn overlain by several hundred meters of calcareous argillite.

Structure

One of the most significant structures apparent in the claim area is an anticline on Gold Hill. The anticline plunges to the southwest at approximately 10° and appears to continue to the northeast of the claim blocks.

A major fault zone appears to be located along the Spruce Creek valley from air photo interpretations. Extreme fracturing and alteration of the rock along the valley appears to substantiate the existance of a major fault.

GEOCHEMISTRY

Analysis of gold values in geochemical samples taken in the area suggests that normal background is near the detection limit of 5 ppb. As a result, values between 15 and 50 ppb are probably anomalous with values greater then 50 ppb being definitely anomalous.

Normal background for copper in the area appears to be approximately 30 ppm and for silver, 0.3 ppm. Anomalous values for copper have arbitrarily been set at 100 ppm and for silver, 1.5 ppm.

FIELD PROGRAM 1983

Gold and silver-copper surveys done by separate teams within the 10 day period

A field program was commenced on July 22, 1983, with a three man crew consisting of the writer, John McFarland as a prospector and soil

TK

sampler, and W. Godbey as a prospector and sampler. A basic prospecting and sampling program was concentrated in the claim area, basically in the Gold Hill area. The prime purpose was to determine which of the Cache Creek rock types seen in section on the Gold Hill anticline carries anomalous values in gold. Rock chip samples of the various rock types were collected for analysis. Selected material from quartz veins located in place were similarly collected for analysis.

Soil samples were generally taken from the 'B' horizon approximately 6 inches below the surface and placed in marked kraft bags. All soils and chips collected for gold analysis were shipped to Min-En Laboratories Ltd. in North Vancouver, and all samples collected for copper - silver analysis were shipped to Bondar-Clegg and Company Ltd. in Whitehorse, Yukon. Two selected hand samples, one of magnetite from a small lense on Gold Hill and one of white quartz from the same area, were sent to Federal Testing Laboratories in Seattle, Washington for complete plasma analysis.

Analytical procedures used by these laboratories follow industry standards. Initially the samples are dried and screened to -80 mesh. In the case of copper and silver, the -80 mesh fraction is analyzed by standard wet chemical methods. For the gold samples, a portion of the -80 mesh fraction is fire assayed and another portion checked by atomic absorption methods for a verification of results.

Results of the sampling program are shown on Figure 2, Sample Results.

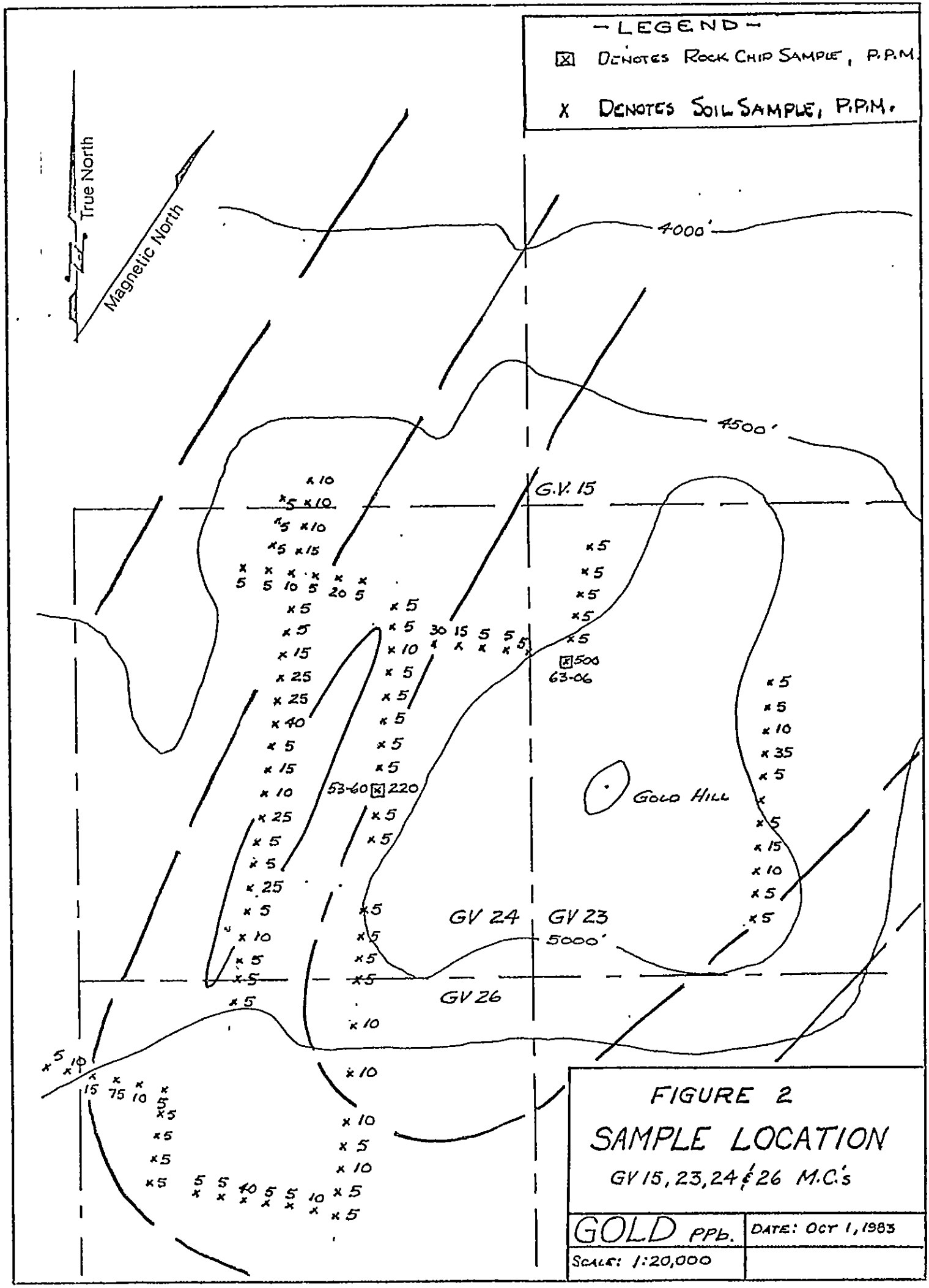
CONCLUSIONS

Samples collected for copper and silver analysis appear to have no correlation with gold values in any of the rock types. Interpretation of the soils analysed for gold appears to indicate that the bulk of the anomalous values are associated with the carbonate rocks in the limestone or limestone breccia horizon of the Cache Creek assemblage.

The magnetite lenses or veins in this rock group appears to be of prime importance as a host for gold. The one magnetite sample analysed by Federal Testing Laboratories Ltd. returned a gold value of 0.00054 per cent or 0.162 oz Au/ton.

RECOMMENDATIONS

Limited rock exposure in the area does not provide the means for sufficiently detailed mapping of the area. Bulldozer trenches downslope on the east slope of Gold Hill cutting a cross-section of the Cache Creek series would be advantageous. Recent roadwork along Spruce Creek to the east has opened up several new rock cuts which should be mapped and sampled in detail.


- LEGEND -
⊠ DENOTES ROCK CHIP SAMPLE, P.P.M.
X DENOTES SOIL SAMPLE, P.P.M.
True North
Magnetic North
4000'
4500'
5000'
G.V. 15
GV 24
GV 23
GV 26
GOLD HILL
⊠500
63-06
53-60 ⊠220
FIGURE 2
SAMPLE LOCATION
GV 15, 23, 24 & 26 M.C.'s
GOLD ppb.
DATE: OCT 1, 1983
SCALE: 1:20,000

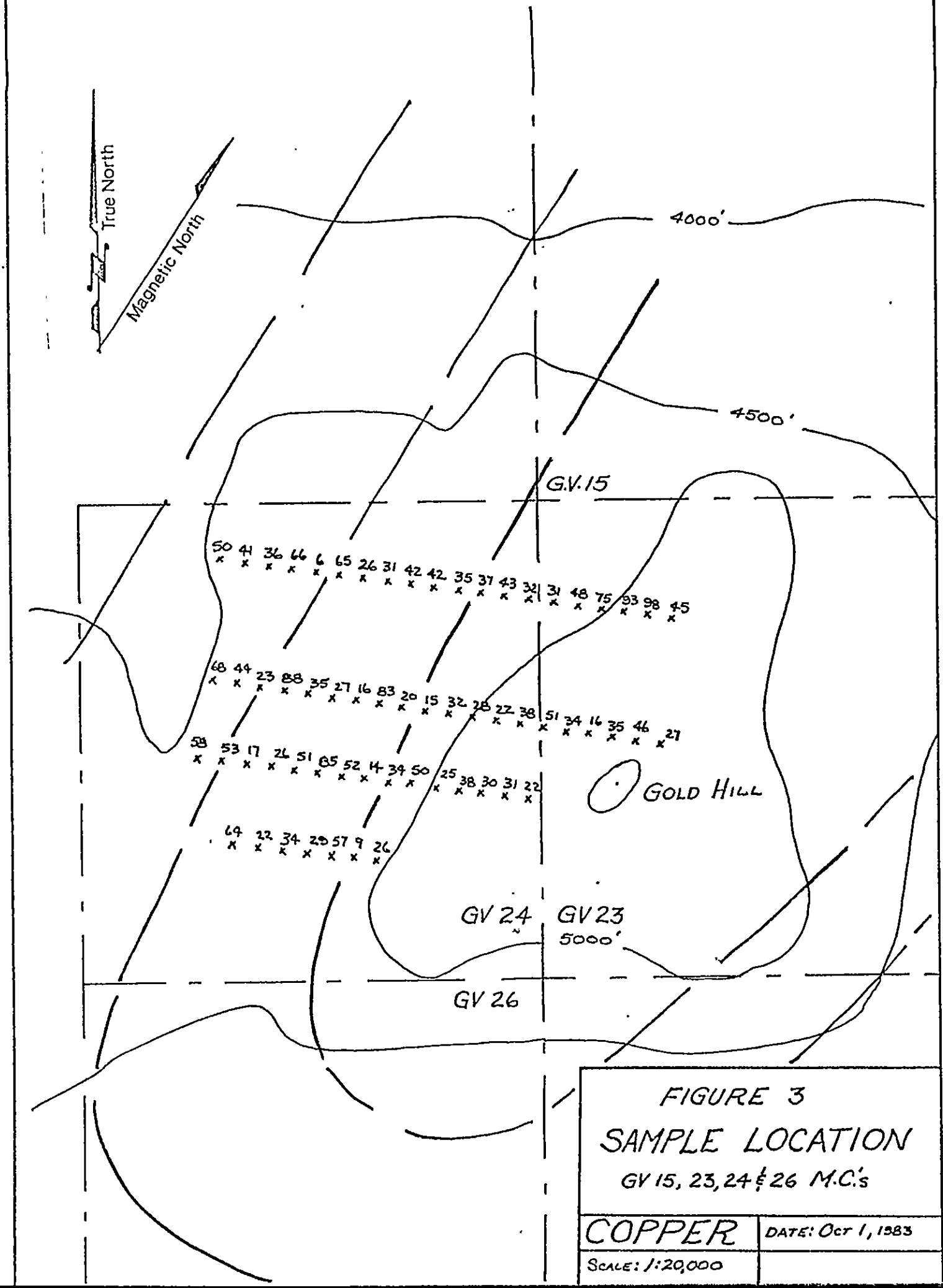


FIGURE 3

SAMPLE LOCATION

GV 15, 23, 24 & 26 M.C.'s

COPPER	DATE: Oct 1, 1983
SCALE: 1:20,000	

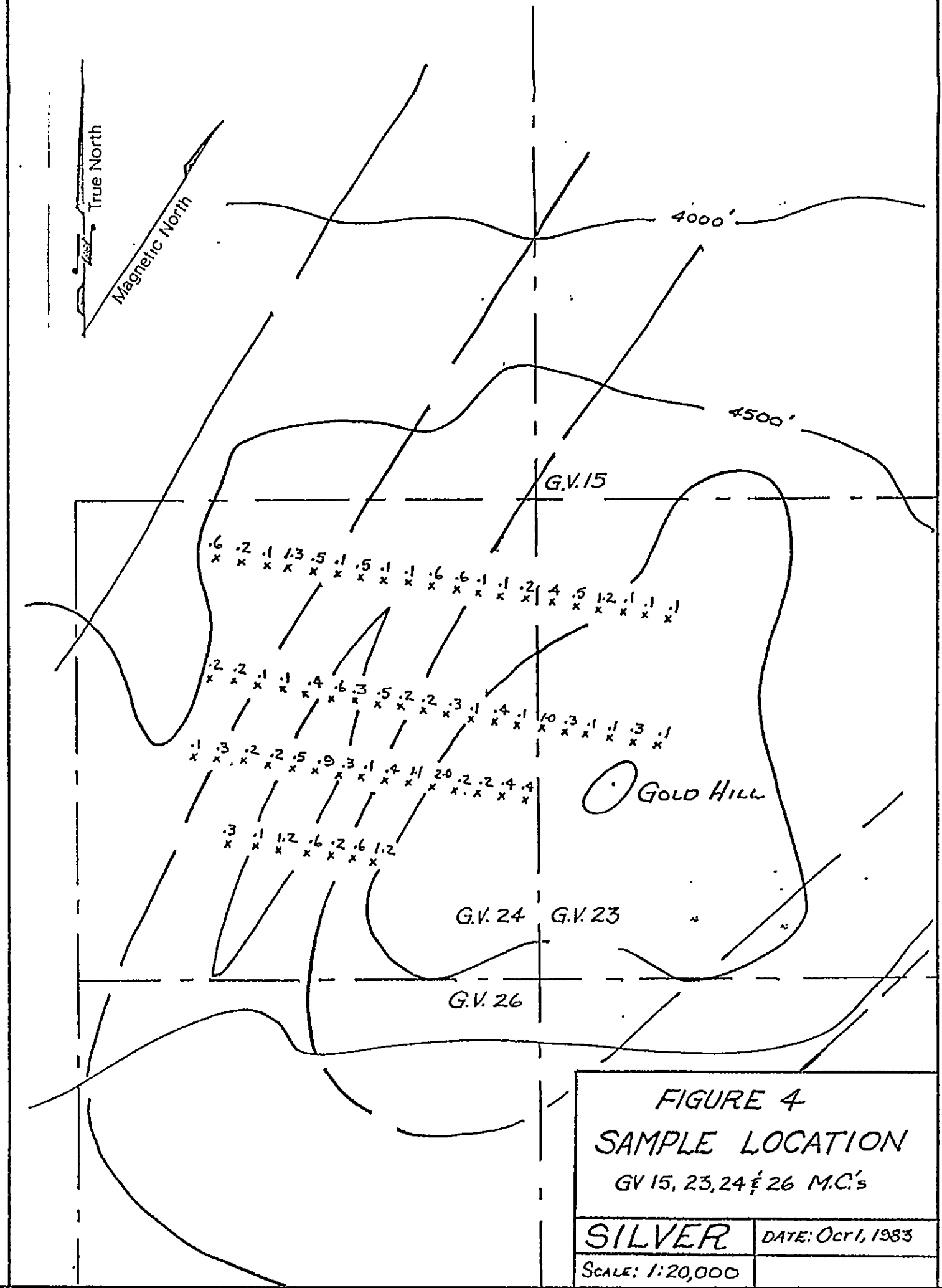


FIGURE 4
SAMPLE LOCATION
GV 15, 23, 24 & 26 M.C.'s

SILVER	DATE: Oct 1, 1983
SCALE: 1:20,000	

APPENDIX A

Cost Statements

Mr. John McFarland
9360 Forest Court S.W.
Seattle, Washington
98136

Re: Prospecting and Sampling - Gold Hill Area

LABOUR

J. McFarland 10 days @ $120/day	$ 1,200.00
W. Godbey 10 days @ $120/day	1,200.00
J.E. Wallis, P.Eng. 7 days @ $350/day	2,450.00

EXPENSES

Geochemical Analysis	1,422.35
Truck Rental 10 days @ $60/day	600.00
Room and Board	1,150.00
Supplies, Telephone, etc.	423.50
TOTAL	$ 8,445.85

APPENDIX B

Test Report #83-1212
Plasma Analysis
Federal Testing Laboratories

FEDERAL TESTING LABORATORIES 1519 Queen Anne Avenue North • Seattle, Wa. 98109 • 283-4202

August 17, 1983

John McFarland
9360 Forest Court S.W.
Seattle, Washington 98136

TEST REPORT: #83-1212

PROCESS: Ore Analyses
SPECIFICATION: FTPS analytical Procedures
DATE TESTED: August 10 - 17, 1983

Below are listed the results of plasma analyses on samples received on August 10, 1983. All values are in percent.

Element	Symbol	magnetite Sample #1	White GH Sample #2
Silver	Ag	none	none
Aluminum	Al	0.94	0.86
Arsenic	As	0.004	0.011
Gold	Au	0.00054*	none
Barium	Ba	0.45	1.02
Calcium	Ca	6.94	0.84
Copper	Cu	none	0.029
Iron	Fe	5.01	2.70
Potassium	K	1.63	1.26
Magnesium	Mg	0.40	0.097
Manganese	Mn	0.14	0.053
Sodium	Na	0.29	1.28
Phosphorous	P	0.21	0.037
Lead	Pb	0.006	0.006
Palladium	Pd	none	none
Platinum	Pt	none	none
Rhodium	Rh	none	none
Silicon	Si	13.46	21.36
Tin	Sn	none	0.027
Titanium	Ti	0.94	0.27
Zinc	Zn	0.003	0.024

* calculates to 0.162 oz/ton of gold

FEDERAL TESTING LABORATORIES

Patrick P. Raney

Arctic Engineering Services Ltd.

Geological & Mining Engineers

J. E. WALLIS, P.ENG.
604 651-7579

BOX 59
ATLIN, B.C. V0W 1A0

CERTIFICATE OF QUALIFICATIONS

I, J.E. Wallis, of Box 59, Atlin, British Columbia, do certify that:

1- I am a registered Professional Engineer in good standing in the Association of Professional Engineers of British Columbia.

2- I am a graduate of the Haileybury School of Mines 1958, the University of Alaska B.Sc. 1965 and Queen's University M.Sc. (Eng) 1967.

3- I have been practicing my profession for 24 years and as a Professional Engineer for the past 15 years.

4- I have personally visited the property reviewed in this report on several occasions and am familiar with the district.

Dated at Atlin, British Columbia, this 1st day of October, 1983.

J.E. Wallis, P. Eng.