



ASSESSMENT REPORT  
GEOLOGICAL MAPPING AND  
GEOCHEMICAL SAMPLING  
GAMMON CLAIMS  
WHITEHORSE MINING DISTRICT

091390

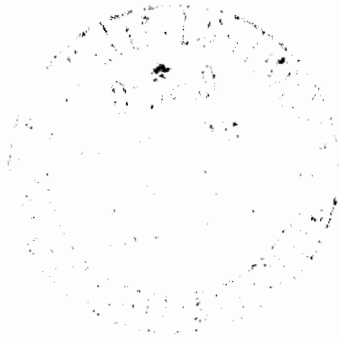
GAMMON 21-30 YA 74316 to YA 74325  
GAMMON 49-58 YA 74344 to YA 744353  
GAMMON 79-88 YA 74374 to YA 74383

NTS 105 D/16

LATITUDE: 60°51'N  
LONGITUDE: 134°13'W

AUGUST 4th TO AUGUST 16th, 1982

By: P. D. Van Angeren



DEPARTMENT OF MINES AND TECHNICAL SURVEYS  
GEOLOGICAL SURVEY OF CANADA  
Ottawa, Ontario  
1914

REPORT OF THE GEOLOGICAL SURVEY OF CANADA  
ON THE GEOLOGY OF THE  
TERRITORY OF YUKON

1914

This report has been examined by  
the Geological Survey of Canada  
under Section 10 of the **Gold Quartz**  
Mining Act and is certified as  
representing work in the amount  
of \$ 7,500-.

*P. Watson*

*for* **Regional Geologist and  
Geological Commissioner  
of Yukon Territory.**



Department of Indian Affairs and Northern Development

YUKON QUARTZ MINING ACT

FORM "C" - APPLICATION FOR A CERTIFICATE OF WORK

(This form required in duplicate with sketch showing location of work.)



I (Name)	Philip D. Van Angeren	Occupation	Geologist
(Postal Address)	3000, 350 - 7th Avenue S.W., Calgary, Alberta T2P 3N9		

MAKE OATH AND SAY, THAT:-

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.

2. I have done, or caused to be done, work on the following mineral claim(s):

(Here list claims on which work was actually done by number and name)

GAMMON 21 YA74316	GAMMON 29 YA74324	GAMMON 55 YA74350	GAMMON 83 YA74378
GAMMON 22 YA74317	GAMMON 30 YA74325	GAMMON 56 YA74351	GAMMON 84 YA74379
GAMMON 23 YA74318	GAMMON 49 YA74344	GAMMON 57 YA74352	GAMMON 85 YA74380
GAMMON 24 YA74319	GAMMON 50 YA74345	GAMMON 58 YA74353	GAMMON 86 YA74381
GAMMON 25 YA74320	GAMMON 51 YA74346	GAMMON 79 YA74374	GAMMON 87 YA74382
GAMMON 26 YA74321	GAMMON 52 YA74347	GAMMON 80 YA74375	GAMMON 88 YA74383
GAMMON 27 YA74322	GAMMON 53 YA74348	GAMMON 81 YA74376	
GAMMON 28 YA74323	GAMMON 54 YA74349	GAMMON 82 YA74377	

situated at Mount Byng Claim Sheet No. 105 D/16

in the Whitehorse Mining District, to the value of at least \$7,500.00

dollars, since the 25th day of November 1981

to represent the following mineral claims under the authority of Grouping Certificate No. \_\_\_\_\_

(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

GAMMON 21 YA74316	GAMMON 51 YA74346	GAMMON 83 YA74378	Renewed to April 30th, 1985, with change of renewal date to April 30th.
GAMMON 22 YA74317	GAMMON 52 YA74347	GAMMON 84 YA74379	
GAMMON 23 YA74318	GAMMON 53 YA74348	GAMMON 85 YA74380	
GAMMON 24 YA74319	GAMMON 54 YA74349	GAMMON 86 YA74381	
GAMMON 25 YA74320	GAMMON 55 YA74350	GAMMON 87 YA74382	
GAMMON 26 YA74321	GAMMON 56 YA74351	GAMMON 88 YA74383	
GAMMON 27 YA74322	GAMMON 57 YA74352		
GAMMON 28 YA74323	GAMMON 58 YA74353		
GAMMON 29 YA74324	GAMMON 79 YA74374		
GAMMON 30 YA74325	GAMMON 80 YA74375		
GAMMON 49 YA74344	GAMMON 81 YA74376		
GAMMON 50 YA74345	GAMMON 82 YA74377		

3. The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

August 4-16th, 1982. Geological mapping and geochemical sampling as described in the enclosed report.

Sworn before me at CALGARY  
this 24 day of NOVEMBER 1982

*[Signature]*  
A Notary Public for the Province of Alberta  
Subscribed

*[Signature]*  
Applicant.

DALLAS L. DROFFO

091390

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## 1. INTRODUCTION

### 1.1 General

This report describes geological mapping and geochemical sampling carried out by Agip Canada Ltd. on part of the GAMMON 7-88 claims during the period August 4th to August 16th, 1982. Only work carried out on the GAMMON claims 21-30 (YA 74316 to YA 74325), 49-58 (YA 74344 to YA 74353) and 79-88 (YA 74374 to YA 74383) is being filed for assessment purposes.

### 1.2 Location and Access

The GAMMON claims are located 45 kilometers northeast of Whitehorse, 7 kilometers southeast of Mount Byng in NTS map sheet 105 D/16 at 60°<sup>45</sup>'N, 134°13'W. The claims are situated within the Whitehorse Mining District; claim distribution is shown in Figure 1.

Access to the claim group is by helicopter from Whitehorse.

### 1.3 Physiography and Vegetation

The GAMMON claims are located along the western flank of a jagged north-trending ridge. Topographic relief in the area is in the order of 700 meters. The claim block is drained by three creeks flowing in a westerly direction.

Up to 1400 meters ASL, vegetation consists of dense black spruce and poplar forest. Above this altitude, alders and buck brush are common. Alpine moss and scrub is found above the 1600 meter level.

### 1.4 Exploration by Other Companies

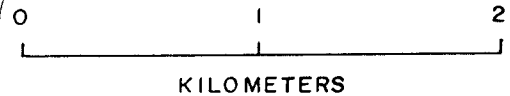
The general area has been examined by prospectors in the past. Placer claims are found a few kilometers north of the claim group. At present a few companies are actively exploring for precious metals throughout the Mount Byng area.



GAMMON

61°51'

79	80	49	50	21	22
YA 74374	YA 74375	YA 74344	1500 YA 74345	YA 74316	YA 74317
81	82	51	52	23	24
YA 74376	YA 74377	YA 74346	YA 74347	YA 74318	YA 74319
83	84	53	54	25	26
1050 YA 74378	YA 74379	BYNG CR. YA 74348	YA 74349	YA 74320	YA 74321
85	86	55	56	27	28
YA 74380	YA 74381	YA 74350	YA 74351	YA 74322	YA 74323
87	88	57	58	29	30
YA 74382	YA 74383	YA 74352	YA 74353	YA 74324	YA 74325



Agip Canada Ltd.

REPORT:

### GAMMON CLAIMS

21-30

49-58

79-88

NTS 105 D/16

SCALE:  
1:31680

AUTHOR:  
P.V.A.

DATE:  
SEPT / 82

FIGURE:  
1

134°15'

## 2. GEOLOGY

### 2.1 Regional Geology

The GAMMON claims are situated along the eastern edge of the Mount Byng Tertiary volcanic complex. This complex, of intermediate to acid composition, has intruded and overlain both Triassic sediments (siltstone, limestone and greywacke) and Cretaceous granodiorite intrusions (Morrison, 1979).

### 2.2 Claim Geology

The geology of the claim block consists mostly of Tertiary extrusive and intrusive rocks overlying Triassic siltstone (Figure 2).

The extrusive rocks consist essentially of massive dark green, porphyritic andesite (with minor intercalated, thin bedded andesitic tuff) and grey to white ignimbrite and cherty lapilli tuff.

The intermediate and acid volcanic rocks are separated by 10 to 20 meters of thinly bedded and interlayered siltstone, conglomerate, agglomerate and limestone. The clastic units appear to be derived from local andesites.

Intrusive into all units are yellow, sericitized feldspar porphyry dykes and minor thin andesite dykes.

Most contacts between units are either faulted or intrusive in nature. The contact with underlying Triassic sediments consists of flow-bottom breccia resting upon brecciated black siltstone (talus breccia).

Structural patterns are dominantly northwest trending. Most fault and bedding attitudes in the volcanic rocks strike northwest and have steep to vertical dips.

The only type of mineralization encountered on the claim block is fine-grained, disseminated pyrite, found locally in the ignimbrite.

### 3. GEOCHEMISTRY

A total of 40 soil, 27 silt, and 10 rock samples were collected from the area. The samples were analysed for gold, silver, arsenic, and mercury. The silt samples were also analysed for uranium. Sample locations are shown in Figure 3 and analytical results listed in Appendix B.

All values for uranium, gold, arsenic and mercury are at background concentrations (ie: U <50 ppm; Au <40 ppb; Ag <0.9 ppm; As <25 ppm, and Hg <210 ppb), except one gold value (1180 ppb) in a soil sample (#1033082), and one silver value (2.0 ppm) in a silt sample (#1010010). The anomalous gold value was determined on a 2 gram sample and the actual value will be in the range of plus or minus 20% of the stated result, due to the small size of the sample (ie: the actual value may be anywhere between 900 and 1400 ppb). The anomalous silver value is from a black organic-rich seep and is not significant.

The significance of the gold anomaly has not yet been determined. Further detailed sampling and mapping may be required in the vicinity of this sample.

### 4. REFERENCES

Morrison, Greg W., 1979: Metallogenic Map, Whitehorse Map Area, Yukon, Open File E.G.S. 1979-6, Department of Indian Affairs and Northern Development, Yukon.

APPENDIX A

LIST OF CLAIM NAMES AND GRANT NUMBERS

<u>CLAIM NAMES</u>	<u>GRANT NUMBERS</u>
GAMMON 21	YA 74316
GAMMON 22	YA 74317
GAMMON 23	YA 74318
GAMMON 24	YA 74319
GAMMON 25	YA 74320
GAMMON 26	YA 74321
GAMMON 27	YA 74322
GAMMON 28	YA 74323
GAMMON 29	YA 74324
GAMMON 30	YA 74325
GAMMON 49	YA 74344
GAMMON 50	YA 74345
GAMMON 51	YA 74346
GAMMON 52	YA 74347
GAMMON 53	YA 74348
GAMMON 54	YA 74349
GAMMON 55	YA 74350
GAMMON 56	YA 74351
GAMMON 57	YA 74352
GAMMON 58	YA 74353
GAMMON 79	YA 74374
GAMMON 80	YA 74375
GAMMON 81	YA 74376
GAMMON 82	YA 74377
GAMMON 83	YA 74378
GAMMON 84	YA 74379
GAMMON 85	YA 74380
GAMMON 86	YA 74381
GAMMON 87	YA 74382
GAMMON 88	YA 74383

## APPENDIX B

### ANALYTICAL METHODS AND GEOCHEMICAL RESULTS

#### Analytical Methods

All geochemical samples were prepared and analysed by Bondar Clegg in Whitehorse.

Soil samples were sieved to -80 mesh and a split of this fraction was analysed.

Uranium analyses were by hot concentrated nitric acid digestion and fluorimetric determination.

Silver was analysed by atomic absorption techniques, after the sample was dissolved in hot aqua regia.

The arsenic content was determined by colorimetry after dissolving the sample in an  $\text{HClO}_4\text{-HNO}_3$  arsine solution.

Mercury was analysed by dissolving the sample in aqua regia followed by a closed cell, flameless atomic absorption determination.

Gold analyses are by fire assay techniques using a 10 gm sample. After the preparation of a lead bead, the bead is dissolved in acid and the gold content determined by atomic absorption spectrophotometry.

ANALYTICAL RESULTS

1982 SOIL GEOCHEMISTRY

(All values in ppm except Au and Hg in ppb)

Sample #	U	Au	Ag	As	Hg
1033070	-	<10	0.4	5	25
1033071	-	<5	0.2	9	40
1033072	-	<5	0.3	5	45
1033073	-	40	0.4	8	30
1033074	-	<5	0.3	4	35
1033075	-	<5	0.3	7	40
1033076	-	<20	0.3	3	50
1033077	-	10	0.3	3	45
1033078	-	<15	0.4	10	50
1033079	-	<5	0.2	7	30
1033080	-	<5	0.3	5	35
1033081	-	<5	0.4	6	20
1033082	-	1180	0.5	3	30
1033083	-	<5	0.5	7	30
1033084	-	<5	0.4	5	20
1033085	-	<10	0.4	3	20
1033086	-	<20	0.3	4	30
1033087	-	<5	0.6	3	15
1033088	-	<5	0.6	7	15
1033089	-	<20	0.6	5	25
1033090	-	<5	0.3	3	35
1033091	-	20	0.3	5	15
1033092	-	10	0.5	4	20
1033093	-	<5	0.4	5	50
1033094	-	30	0.6	6	25
1033095	-	<5	0.4	3	20
1033096	-	<5	0.4	6	15
1033097	-	5	0.4	9	25
1033098	-	5	0.2	5	15
1033099	-	<5	0.3	6	30
1033100	-	<5	0.3	6	60
1033101	-	<5	0.3	6	20
1033102	-	5	0.5	6	10
1033106	-	<5	0.6	3	50

ANALYTICAL RESULTS    Con't

1982 SOIL GEOCHEMISTRY

(All values in ppm except Au and Hg in ppb)

Sample #	U	Au	Ag	As	Hg
1030001	40.0	<5	0.3	21	30
1030002	11.3	<20	0.2	12	10
1030003	3.1	15	0.2	12	10
1030004	4.4	<5	0.2	13	20
1030005	3.9	20	0.1	12	15
1030006	2.2	10	0.1	10	5

ANALYTICAL RESULTS    Con't

1982 SILT GEOCHEMISTRY

(All values in ppm except Au and Hg in ppb)

Sample #	U	Au	Ag	As	Hg
1012010	3.4	<5	0.3	15	40
1012011	3.7	<5	0.2	18	35
1012012	10.6	<5	0.3	15	50
1012013	0.8	5	0.2	5	30
1012014	0.9	<5	0.3	6	50
1012015	5.1	<5	0.3	11	25
1013011	1.8	<5	0.1	7	25
1013012	3.9	25	0.5	7	55
1013013	12.4	<5	0.2	7	30
1013014	30.0	20	0.5	11	65
1013015	-	<20	0.2	10	60
1013016	-	<20	0.3	6	30
1011003	0.3	10	0.3	12	25
1011004	1.2	5	0.3	4	35
1011005	50.0	25	0.5	5	60
1010002	2.0	25	0.2	6	35
1010003	1.0	<5	0.2	6	30
1010004	1.8	10	0.2	11	35
1010005	3.4	10	0.3	15	55
1010006	2.8	10	0.2	7	15
1010007	9.7	5	0.5	7	30
1010008	7.6	20	0.4	7	50
1010009	-	5	0.2	-	-
1010010	-	20	2.0	16	190
1010011	-	5	0.3	22	35
1010012	-	25	0.6	-	-
1010013	-	20	0.4	13	40

ANALYTICAL RESULTS    Con't

1982 ROCK GEOCHEMISTRY

(All values in ppm except Au and Hg in ppb)

Sample #	U	Au	Ag	As	Hg
1040000	-	5	0.3	22	30
1040003	-	<5	0.4	5	30
1041000	-	5	0.2	13	30
1041001	-	5	0.3	12	30
1041002	-	<5	0.2	4	30
1041003	-	<5	0.4	10	30
1041004	-	<5	0.5	9	35
1041005	-	<5	0.3	12	205
1042050	-	10	0.9	14	30
1042051	-	<5	0.3	5	50

APPENDIX C  
STATEMENT OF COSTS

Labour

R. Robertson, Senior Geologist, 1 day @ \$170/day	\$ 170.00
P. Van Angeren, Project Geologist, 8 days @ \$120/day plus 3 days report preparation	1,320.00
J. Haase, Senior Assistant, 8 days @ \$90/day	720.00
A. Rousseau, Intermediate Assistant, 8 days @ \$75/day	600.00
M. Laing, 8 days @ \$58/day	<u>464.00</u>
TOTAL	\$3,274.00

Helicopter Costs

Hughes 500 D contracted from Canwest Aviation, Calgary, Alberta  
Based at Agip camp near Mt. Skukum

7 hours @ \$450/hour	\$3,150.00
Fuel @ 25 gal/hour @ \$2.00/gallon	<u>350.00</u>
TOTAL	\$3,500.00

Analytical Costs

34 soil samples @ \$15.35/sample	521.90
6 soil samples @ \$18.35/sample	110.10
20 silt samples @ \$18.35/sample	367.00
5 silt samples @ \$15.35/sample	76.75
2 silt samples @ \$8.60/sample	17.20
10 rock samples @ \$17.40/sample	<u>174.00</u>
TOTAL	\$1,266.95

Food and Camp Supplies

Food estimated at \$20/man-day (32 man-days)	\$ 640.00
Supplies estimated at \$10/day (8 days)	<u>80.00</u>
TOTAL	\$ 720.00

Drafting and Typing Costs

Drafting Estimate	\$ 50.00
Typing Estimate	<u>50.00</u>
TOTAL	\$ 100.00

1982 TOTAL \$8,860.95

APPENDIX D

STATEMENT OF QUALIFICATIONS

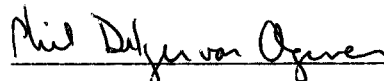
I PHIL D. VAN ANGEREN, of the city of Calgary in the province of Alberta hereby certify:

That I am a geologist employed by Agip Canada Ltd. and I caused to be performed the work described in this report.

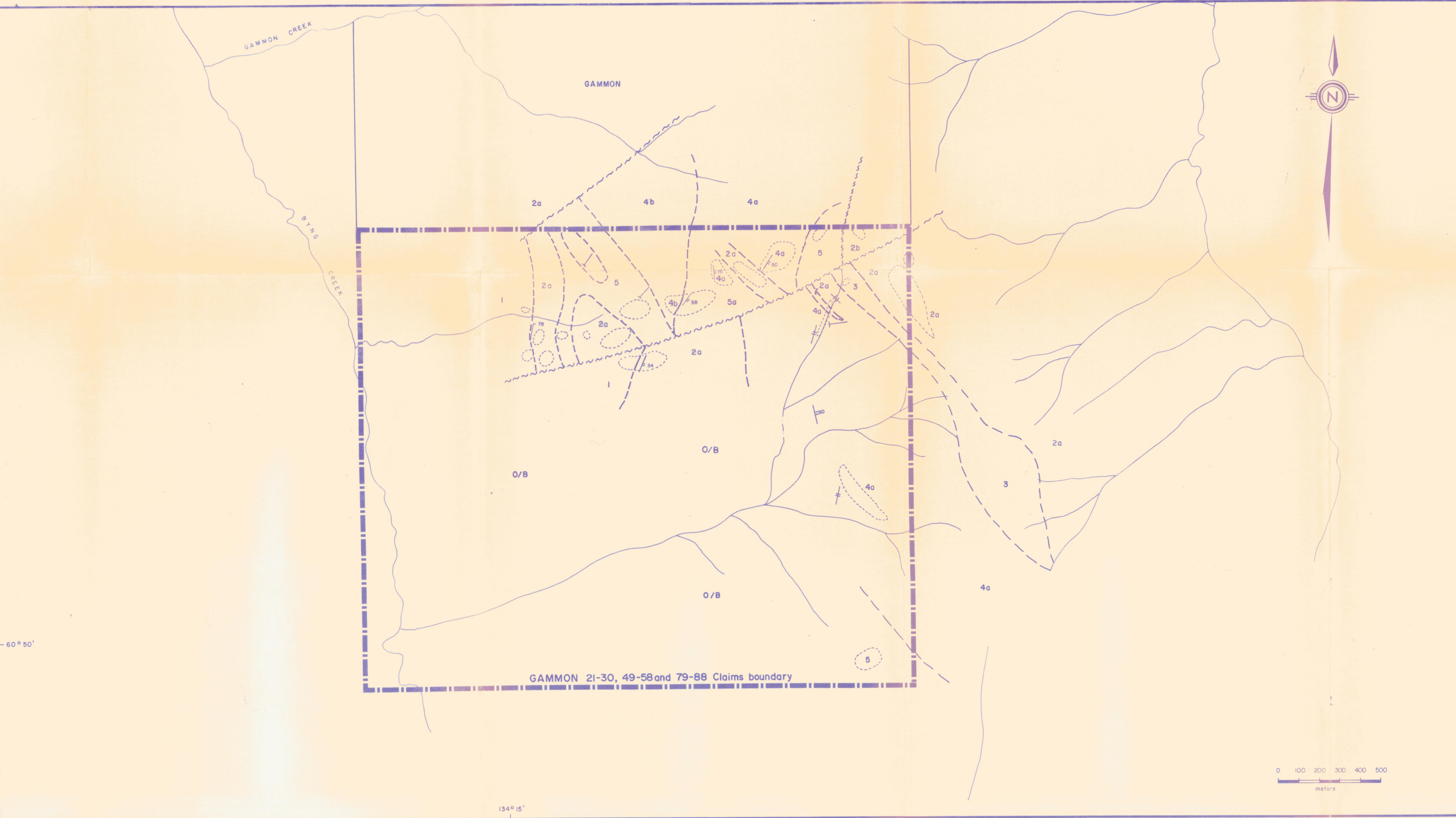
That I obtained a Bachelor of Science degree with honours in Geology from McGill University in Montreal in 1977.

That I have been engaged in mineral exploration on a full-time and part-time basis for seven years, four of which have been in the Yukon Territories and British Columbia.

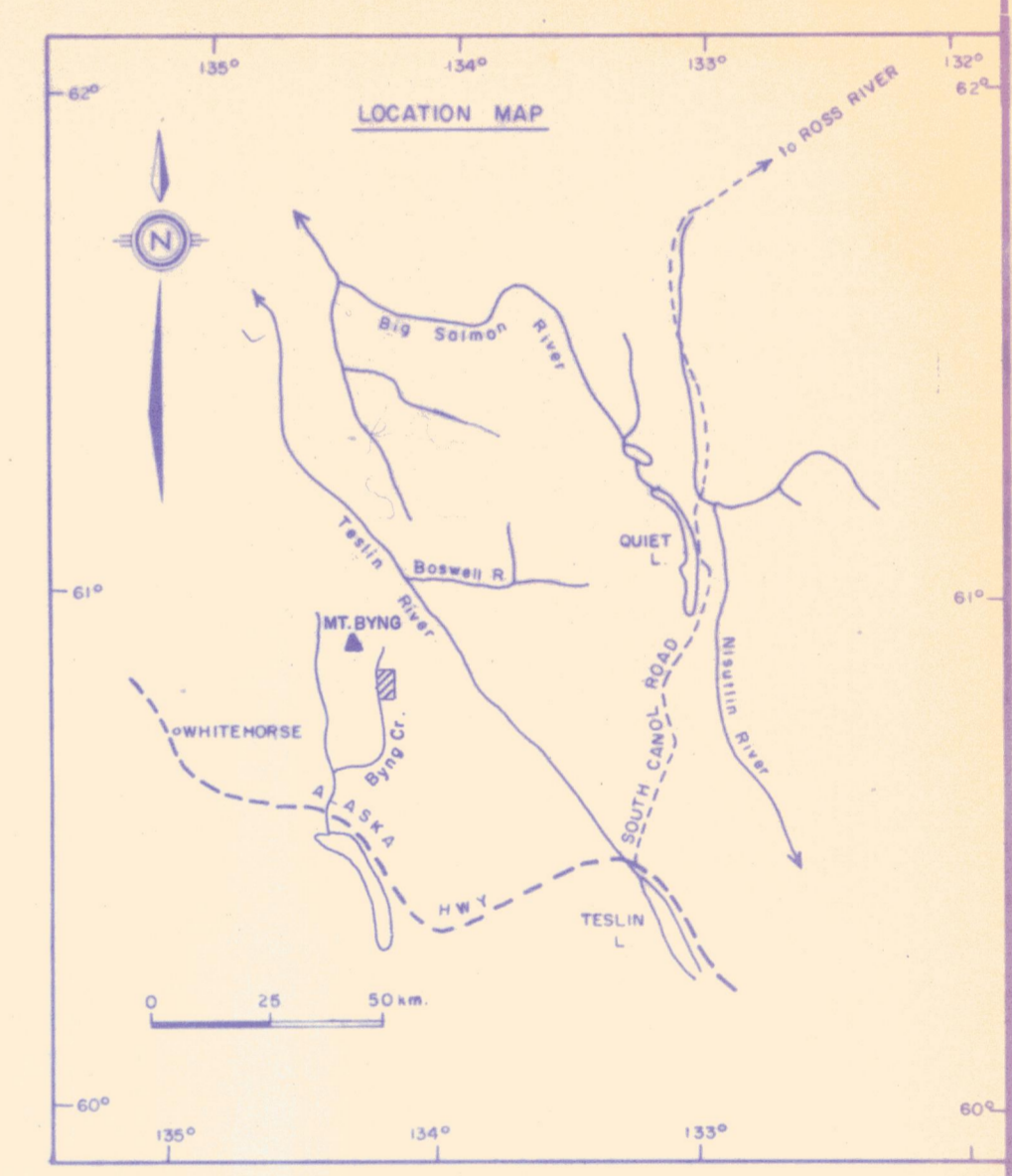
Signed at Calgary, Alberta this 22nd day of November, 1982.



Phil D. Van Angeren



- LEGEND**
- TERTIARY**
- 5 Feldspar porphyry dikes, plugs.
  - 4 Rhyolite a) Ash flow tuff ± pyrite b) Lapilli tuff
  - 3 Siltstone, tuff, conglomerate, limestone - inter bedded
  - 2 Andesite a) massive porphyritic b) bedded tuff
- TRIASSIC**
- 1 Siltstone, black siltstone and minor limestone
- SYMBOLS**
- - - Geological contact (approximate)
  - - - Fault approximate
  - Bedding (vertical inclined)
  - Jointing (vertical inclined)
  - Limit of outcrop
  - O/B Overburden



**AGIP CANADA LTD.**

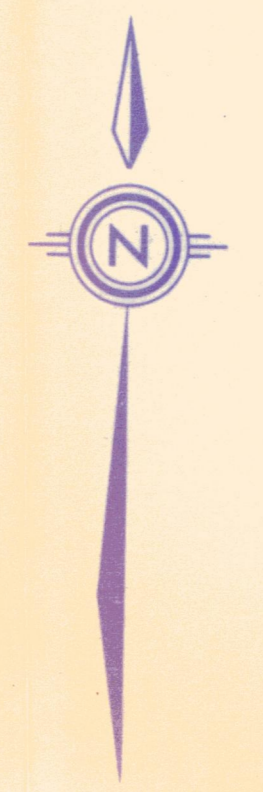
**GAMMON CLAIMS**  
YUKON  
GAMMON 21-30, 49-58 and 79-88 Claims  
GEOLOGY

**091890**

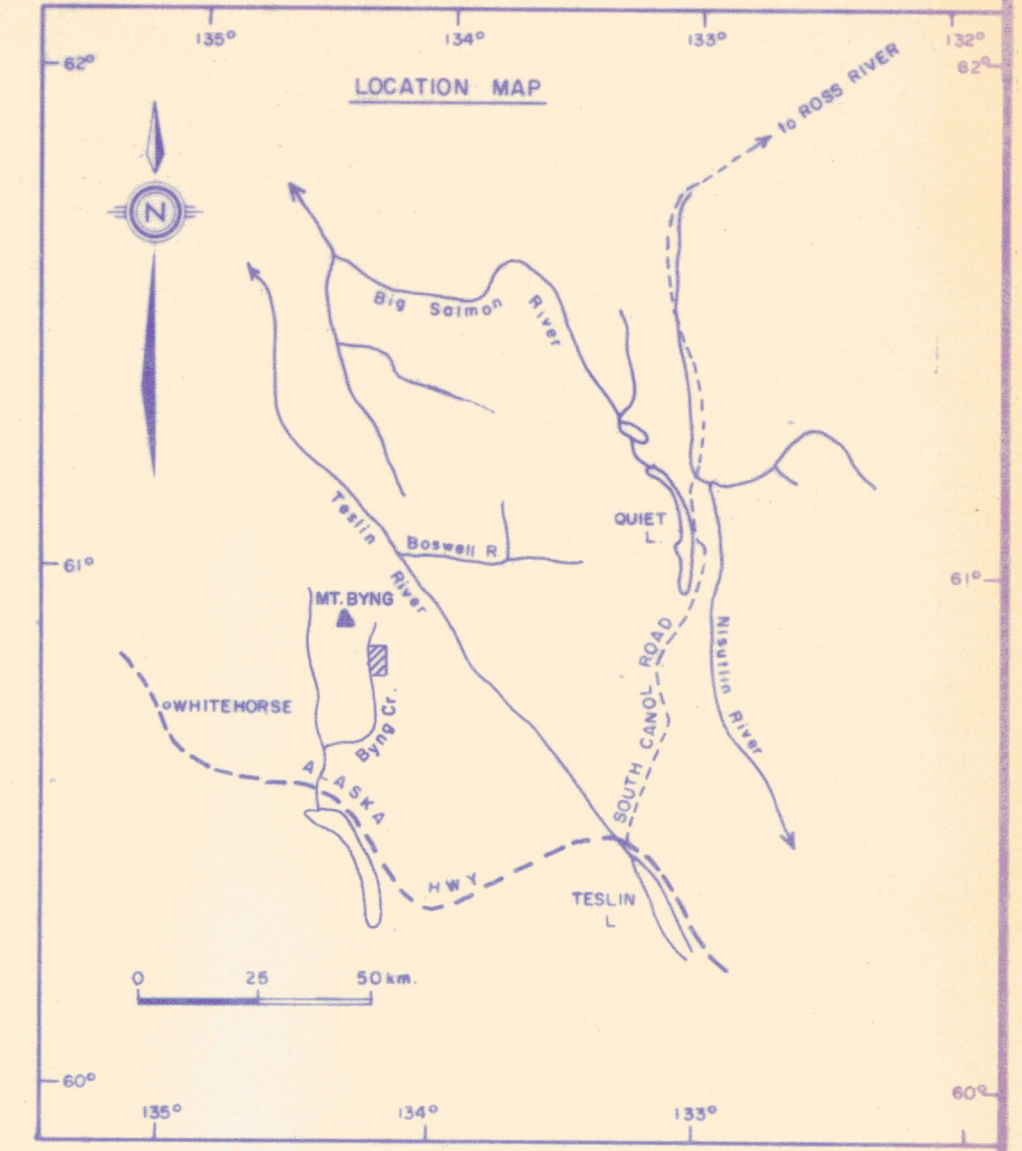
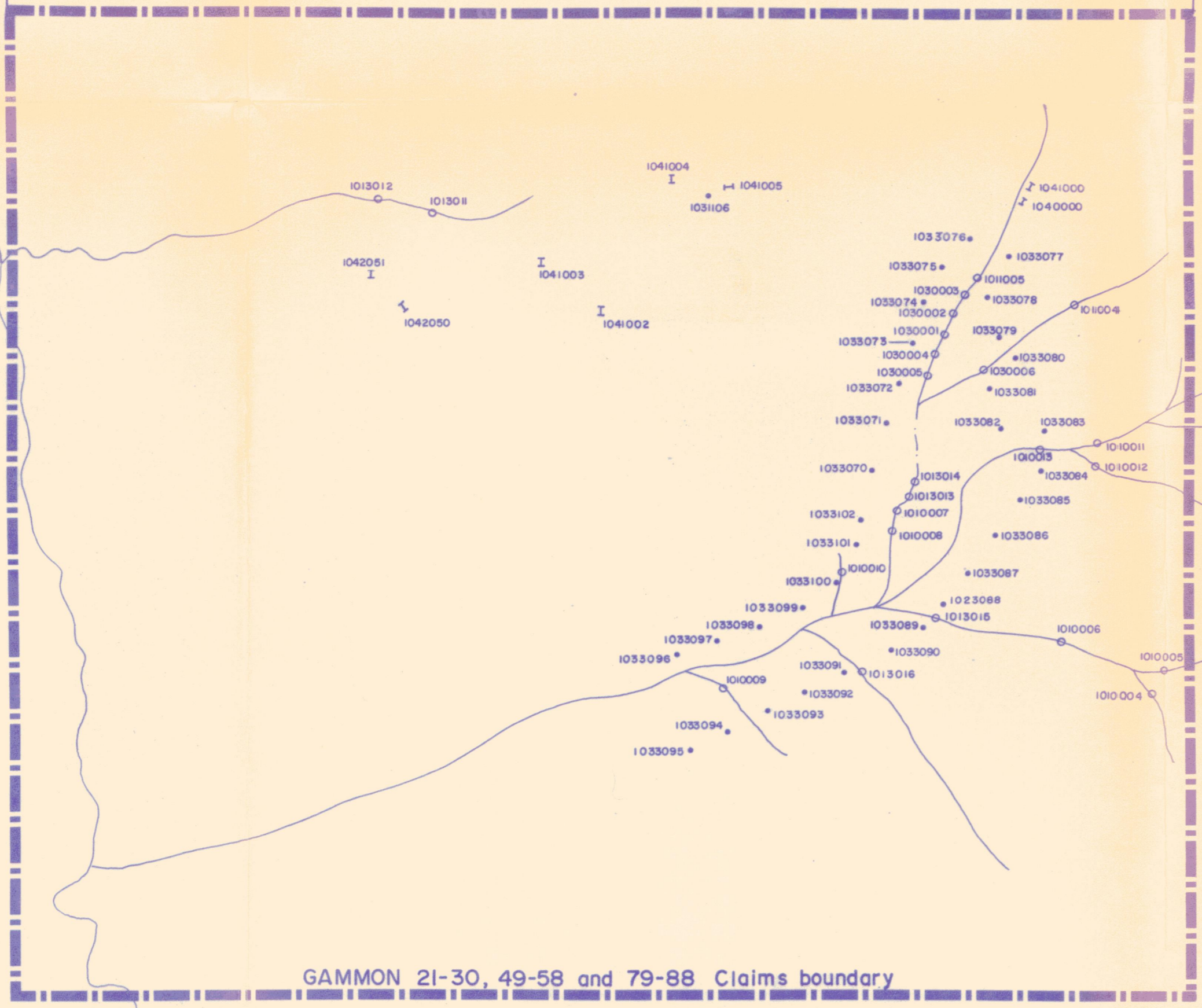
SCALE: 1:10,000	AUTHOR: PD vA	DATE: Nov., 1982
DRAWN BY: G.T.Sz.	N.T.S.: 105 D/16	FIGURE: 2

GAMMON CREEK  
BYNG CREEK

GAMMON



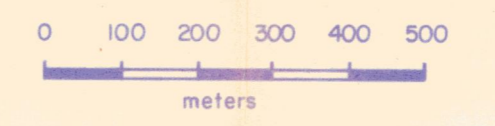
- SYMBOLS**
- 101004 SILT SAMPLE
  - 1031004 SOIL SAMPLE
  - ⌵ 1041004 ROCK CHIP SAMPLE



**AGIP CANADA LTD.**

**GAMMON CLAIMS**  
YUKON

**GAMMON 21-30, 49-58 and 79-88 Claims**  
**SAMPLE LOCATIONS**  
**091394**



SCALE: 1:10,000	AUTHOR: PDvA	DATE: Nov., 1982
DRAWN BY: G.T.Sz.	N.T.S.: 1:0.5 D/16	FIGURE: 3

60° 50'

134° 15'