

# GM 43184

GEOLOGICAL REPORT, QUEVILLON TOWNSHIP PROPERTY

Documents complémentaires

*Additional Files*



Licence



*License*

Cette première page a été ajoutée  
au document et ne fait pas partie du  
rapport tel que soumis par les auteurs.

Énergie et Ressources  
naturelles

Québec 

GEOLOGICAL REPORT  
QUEVILLON TOWNSHIP PROPERTY  
FOR  
HIGHLAND-CROW RESOURCES LTD.

**Ministère de l'Énergie et des Ressources**  
**Service de la Géoinformation**

Date: 18 SEP 1986  
No G.M.: 43184

GEOLOGICAL REPORT  
ON THE EXPLORATION POTENTIAL  
FOR GOLD AND BASE METALS  
OF THE  
QUEVILLON TOWNSHIP PROPERTY  
ABITIBI EAST COUNTY  
QUEBEC  
FOR  
HIGHLAND-CROW RESOURCES LTD.

L.D.S. Winter  
B.A.Sc., M.Sc., F.G.A.C.  
June 6, 1985  
Revised, Feb. 14, 1986

## TABLE OF CONTENTS

	<u>page</u>
1. INTRODUCTION	1
2. SUMMARY AND RECOMMENDATIONS	1
3. PROPERTY	4
3.1 Claim Group and Ownership	4
3.2 Location and Access	6
3.3 Topography, Vegetation and Climate	6
3.4 Services	7
4. PREVIOUS AND CURRENT WORK IN THE AREA	7
5. GEOLOGY	8
5.1 Regional Geology	8
5.2 Property and Economic Geology	10
6. ECONOMIC POTENTIAL	11
7. PROPOSED EXPLORATION PROGRAM AND BUDGET	12

### REFERENCES

Certificate of Qualification

Letter of Consent

3 Figures

## 1. INTRODUCTION

The Quévillon - Wedding River area of northwestern Quebec was first recognized as an area with economic potential by A.H. Lang in 1931. Following his report prospectors made a number of discoveries in the area in the 1930's and two properties in the general region were developed and one, the Lake Rose Gold Mine in Currie township, was brought into production in 1938 by Prospectors Airways. The area was explored for base metals between 1950 and the late 1970's with limited success.

Highland-Crow Resources Limited has acquired a block of 28 regular claims and 34 lots in Quévillon and Franquet townships approximately 20 km north of the town of Lebel sur Quévillon (Figure 1) for their potential for economic mineralization. At the request of the president of Highland - Crow, the property was visited and the following report has been prepared describing the property, its economic potential and a proposed exploration program to evaluate the claims.

## 2. SUMMARY AND RECOMMENDATIONS

The Quévillon township property of Highland - Crow Resources Limited is located in the northeastern part of the Abitibi Subprovince of Early Precambrian - Archean age where east-west striking and steeply dipping meta-volcanics are crossed by a northeast structural trend. The metavolcanics are dominantly intermediate to felsic in composition with intercalated tuffs/ sediments which are outlined by airborne EM anomalies which may represent exhalative sulphide mineralization. A major rock unit on the property is a well-foliated, porphyritic felsic unit which may be a sub-volcanic intrusive or a porphyritic tuff horizon. These features suggest the area is proximal to an ancient volcanic vent and the geological environment is very similar to one of the typical environments containing gold mineralization in the Superior Province of the

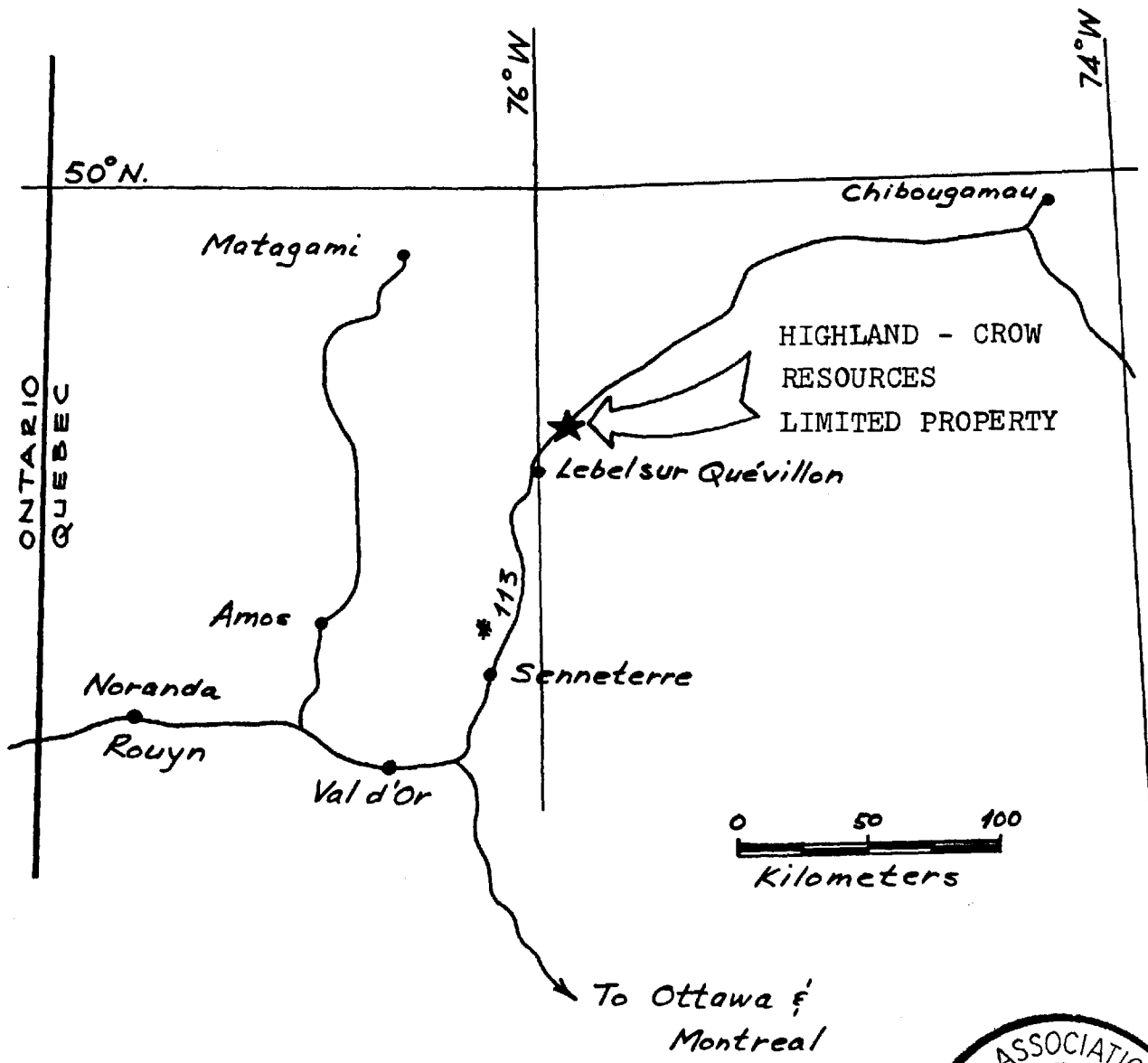
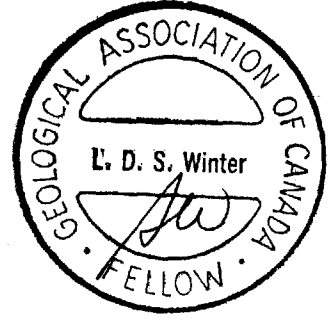


FIGURE 1  
 GENERAL LOCATION MAP  
 HIGHLAND-CROW RESOURCES LIMITED

To accompany the report on the  
 QUEVILLON TOWNSHIP PROPERTY



June 6:85

Canadian Shield as outlined by Hodgson and MacGeehan (1982). It is considered that the property has the potential for stratabound and/or vein-stockwork type gold or base metal mineralization.

Base metal mineralization was located in the general area during the 1960's but due to the general lack of interest in gold exploration following World War II and the extensive overburden cover the property has not been evaluated for gold mineralization.

Due to the favourable geological environment the property is recommended for a 3 phase program of exploration to evaluate the economic potential of the claim group. The initial phase of exploration has a proposed budget of \$161,000 and the total 3 phase program recommends an expenditure of \$435,850.

Respectfully submitted,

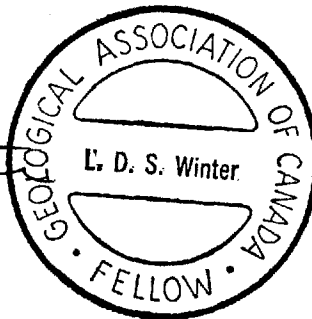
*L. D. S. Winter*

L.D.S. Winter

B.A.Sc., M.Sc., F.G.A.C.

June 6, 1985

Revised February 14, 1986



3. PROPERTY

3.1 CLAIM GROUP AND OWNERSHIP

The Highland-Crow Resources Limited property consists of 28 contiguous, unpatented mining claims in Quévillon township and 34 lots in Franquet township. The group is shown in Figure 2 after claim maps issued by the Ministère de l'Energie et des Ressources, Quebec. The claims and their numbers are listed below.

QUEVILLON TOWNSHIP

<u>Licence</u>	<u>Claims</u>	<u>Total</u>
425830	1-5	5
425831	1-5	5
425832	1-5	5
425833	1-5	5
425834	1-5	5
425835	1-3	<u>3</u>
	Total	<u>28</u>

FRANQUET TOWNSHIP

<u>Licence</u>	<u>Claims</u>	<u>Lot</u>	<u>Range</u>
425801	1	65	2
425801	2	64	2
425802	1	67	2
425802	2	66	2
425803	1	69	2
425803	2	68	2
425804	1	71	2
425804	2	70	2
425805	1	71	1
425805	2	70	1
425806	1	69	1
425806	2	68	1
425807	1	67	1
425807	2	66	1
425808	1	65	1
425808	2	64	1

Franquet Township

Quévillon Township

Grevet Township

Verneuil Township

R2

R1

Lot 58

Lot 52

Lot 71

Lot 71

34 Lots

28 claims

Outline of  
Quévillon Township Property



FIGURE 2

QUEVILLON TOWNSHIP PROPERTY  
CLAIM BLOCK  
QUEVILLON TOWNSHIP  
QUEBEC

To accompany the report for  
HIGHLAND-CROW RESOURCES LIMITED



Scale: 1: 50 000

June 6:85

425823	2	58	1
425823	1	59	1
425822	2	60	1
425822	1	61	1
425821	2	62	1
425821	1	63	1
425824	1	63	1
425824	2	62	2
425825	1	61	2
425825	2	60	2
425826	1	59	2
425826	2	58	2
425827	1	57	2
425827	2	56	2
425828	1	55	2
425828	2	54	2
425829	1	53	2
425829	2	52	2

All claims are held in the name of D. G. Innes, R.R.#1, Wasi Road, Callander, Ontario.

### 3.2 LOCATION AND ACCESS

The property is located in the northeast corner of Quévillon township and the adjacent southeast corner of Franquet township in northwestern Quebec at  $49^{\circ}-10'$  N latitude,  $76^{\circ}-55'$  W longitude (Figure 1). The centre of the claim group is approximately 20 km north of the town of Lebel sur Quévillon, a small pulp and paper town 120 km north of Val d'Or, Quebec.

The property is crossed by provincial highway #113, a paved, all-weather road, which provides excellent access to all parts of the property.

### 3.3 TOPOGRAPHY, VEGETATION AND CLIMATE

In the area of the claims the relief is low with a gently rolling topography with the ridges being generally overburden covered and the valley muskeg or occupied by streams.

Jackpine and spruce are the main trees in the area with occasional patches of poplar. Alders are common along the streams.

The climate is typical of this area southeast of James Bay where wet cloudy summers and high winter snowfalls are common. The winters are cold and summers cool with a temperature range from  $-50^{\circ}\text{C}$  to  $+30^{\circ}\text{C}$ .

#### 3.4 SERVICES

Supplies and services can be obtained in Lebel sur Quévillon, Senneterre 70 km to the south or in Val d'Or. The Senneterre - Chibougamau line of the Canadian National Railway is approximately 7 km southeast of the property.

#### 4. PREVIOUS AND CURRENT WORK IN THE AREA

The area was first reported on by Robert Bell of the Geological Survey of Canada in 1896 following travels in the region. Lang in 1931 did a reconnaissance geological survey of the general region and recommended the Wedding River area to prospectors for its economic potential. In 1934, gold-bearing quartz veins were discovered in Currie township and over the next few years a number of gold showings were reported from the area. In particular, gold-bearing quartz veins in volcanics near the northern end of the township north-south centre-line of Franquet township were reported. As well, Consolidated Mining and Smelting Company of Canada explored gold-bearing sulphide mineralization in silicified tuffs or sediments 3 km to the northwest. South of the Wedding River sheared and carbonatized metavolcanics were explored for gold in 1935 and 1936. Also in 1935, in northwestern Grevet township, gold-bearing mineralized tuffaceous sediments were actively explored. In 1942 gold was discovered in a shear in volcanic rocks in the southwestern part of Quévillon township.

Following World War II there was again exploration

for gold in the region. However, due to the low price of gold interest turned to base metals and from 1950 through to 1980 the area was explored for volcanogenic massive sulphides with limited success, although some interesting prospects were located in the region.

Since the late 1970's there has been re-newed exploration activity in the area for gold mineralization and much of the area has been recently re-staked.

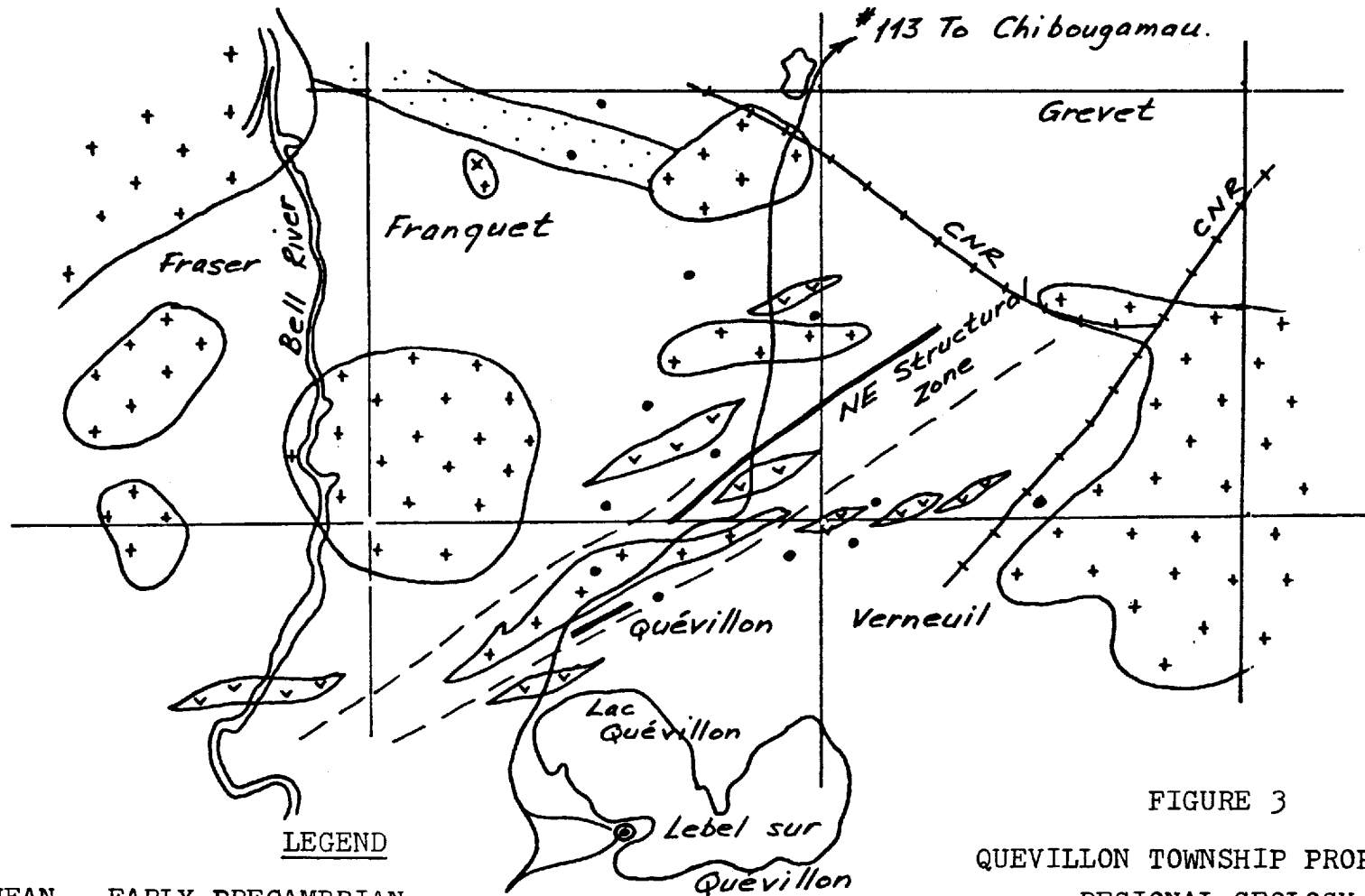
## 5. GEOLOGY

### 5.1 REGIONAL GEOLOGY

The Highland-Crow Resources property is in the northeastern part of the Abitibi greenstone belt of Archean-Early Precambrian age. The property is located in an area of metavolcanics which show both an east-west trend and a dominant northeasterly structural trend between large granite batholiths to the east and west. A number of small granite intrusives intrude the supracrustal units and are considered to represent small offshoots from an underlying batholith. Meta-sediments bound the metavolcanics to the north and south. (Figure 3)








The dominant rock types in the area are mafic to felsic metavolcanic flows and associated pyroclastics. The limited outcrop and drilling information suggests a relatively high proportion of intermediate to felsic metavolcanics in this region. These units occur both as flows and as pyroclastics and/or volcanoclastic sediments. Sedimentary rocks in the area are limited to relatively thin units intercalated with the metavolcanics. All units have been metamorphosed to greenschist rank.

Intrusive bodies ranging from mafic to felsic in composition intrude the metavolcanics. Mafic intrusive sill-like bodies are common in the mafic to intermediate volcanics and appear to have been intruded during periods of volcanism. Quartz and feldspar porphyry dikes and sills are common, particularly in the more felsic metavolcanics



LEGEND

ARCHEAN - EARLY PRECAMBRIAN

- |   |                                     |   |                                   |
|---|-------------------------------------|---|-----------------------------------|
|  | Granitoid intrusive                 |  | geological contact                |
|  | Metasediments                       |  | gold or base metal mineralization |
|  | Felsic metavolcanics                |  | diabase dike                      |
|  | Mafic to Intermediate metavolcanics |   |                                   |

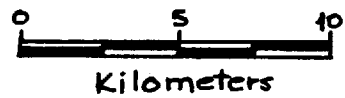


FIGURE 3  
 QUEVILLON TOWNSHIP PROPERTY  
 REGIONAL GEOLOGY  
 QUEVILLON TOWNSHIP  
 HIGHLAND-CROW RESOURCES LIMITED



June 6:85

and may represent subvolcanic intrusives.

The regional foliation trends approximately east-west to east-southeast, dips steeply and is parallel to sub-parallel to the flow contacts. A prominent northeasterly structural trend can be traced across the area and probably represents the southwesterly continuation of strong shearing in the Bachelor Lake area to the northeast. Late diabase dikes commonly follow this trend. Limited top determinations suggest an easterly trending synformal axis through the region.

During the Pleistocene the area was covered by glacial moraine which in turn was covered by extensive layers of glacio-lacustrine sands and clays.

## 5.2 PROPERTY AND ECONOMIC GEOLOGY

The property in northeastern Quévillon and southeastern Franquet townships occurs along the trend of the northeasterly zone of shearing and deformation. The rock units which dip steeply have this northeasterly trend plus an east-west trend in the northeastern part of the claim group.

The metavolcanics all are intermediate to felsic in composition and originally could have been proximal to a volcanic vent. On the northern edge of the claims there are metavolcanics that are interpreted to be intermediate in composition. South of this is a 200 m wide tuff-agglomerate unit with many associated airborne EM anomalies. Across the central part of the property is a unit of rhyolite composition about 2 km wide followed by a tuffaceous-sediment bed 200-400 m thick. Next to the south and trending east-northeast across the claims group with a width of 1000 m is a well foliated, porphyritic, felsic sill which is interpreted to be either a subvolcanic intrusive or a porphyritic extrusive. The southern edge of the property contains volcanics of probably intermediate composition.

The northeasterly structural trend is represented by

two diabase dikes trending east-northeast, one in the northern part of the property and the second on the southern edge of the claims.

In the tuffaceous sediments on the easterly edge of the property in southwest Grevet township, Sullico Mines Ltd. in 1961 intersected sulphides carrying minor chalcopyrite. Also, East Sullivan Mines Ltd. intersected base metal mineralization 2 km west of the present claim block in 1962. (7.5 ft at 1.32 % Cu, 3.68% Zn and 1.34 oz Ag per ton ). This information indicates that mineralization processes have been active in the area but it does not appear that the area of the property has been evaluated for its gold potential.

It is considered that the felsic volcanics ranging from flows through tuffs to agglomerates suggest the presence of an ancient volcanic vent in the general area of the property. The presence of the foliated porphyritic felsic sill or flow also suggests a proximal volcanic environment. Thus it is considered that this environment could host gold and/or base metals associated with volcanic exhalatives, a hot spring vent zone or associated intrusives. (Hodgson & MacGeehan, 1982; Boyle, 1979; Wisser, 1960).

## 6. ECONOMIC POTENTIAL

Hodgson and MacGeehan (1982) studied the geological environments of 135 past-producing gold mines in the Superior Province of the Canadian Shield. One interesting situation they identified contained gold ore in mainly felsic volcanic and sedimentary rocks - dominantly a volcanic environment. Their idealized model present a volcanic pile containing porphyritic felsic units, carbonatized zones and tuffs/sediments containing chemical deposits. Gold may be deposited from hydrothermal discharge vents or in veins or stockworks.

It is considered that the Highland-Crow Resources property contains a geological environment very similar to that presented in the above model.

Areas of felsic volcanics are also favourable for the localization of volcanogenic massive sulphide deposits such as those found in the Noranda area of Quebec. Work in the area has already indicated this type of mineralization but economically significant quantities have not been found to date.

Thus it is considered that the property has the potential for gold and/or base metal mineralization hosted by the favourable felsic volcanics. Since considerable areas of the property are overburden covered the property evaluation should rely heavily on geophysics, geochemistry and overburden drilling.

7. PROPOSED EXPLORATION PROGRAM AND BUDGET

A 3 phase program of evaluation is recommended with the implementation of phases 2 and 3 being dependent on the results obtained in the preceding phase.

PHASE 1

Data compilation, research planing.	\$ 5,000
Line cutting: 100 line-km @ \$180/km.	18,000
Magnetometer survey: 100 line-km @ \$60/km.	6,000
VLF-EM survey: 100 line-km @ \$60/km.	6,000
Overburden drilling: 450 m @ \$100 per m all inclusive.	45,000
Geological mapping and correlating.	10,000
Humus/soil sampling and analysis.	15,000
Stripping, trenching, sampling.	10,000
Camp construction, logistics, supervision etc.	15,000
Vehicle expenses:	<u>10,000</u>
Sub-Total	\$140,000
Contingency 15%	<u>21,000</u>
TOTAL PHASE 1	\$161,000

PHASE 2

Detailed Geophysics: IP or Pulse EM.	\$ 15,000
Overburden drilling and sampling: 400m @ \$100 per m all inclusive.	40,000
Preliminary diamond drilling: 450m @ \$100 per m all inclusive.	45,000
Stripping, trenching and sampling.	15,000
Assaying.	5,000
Camp operation, logistics, supervision etc.	12,000
Vehicle expenses.	<u>10,000</u>
Sub-Total	\$142,000
Contingency 15%	<u>21,300</u>
TOTAL PHASE 2	\$163,300

PHASE 3

Diamond Drilling: 900m @ \$100 per m all inclusive.	\$ 90,000
Vehicle expenses.	<u>7,000</u>
Sub-Total	\$ 97,000
Contingency 15%	<u>14,550</u>
TOTAL PHASE 3	\$111,550

As results become available the proposed program may change within the budget to ensure the efficient use of funds. If all 3 phases are implemented the total expenditure would be \$435,850.

Respectfully submitted,

*L.D.S. Winter*

L.D.S. Winter  
B.A.Sc., M.Sc., F.G.A.C.  
February 14, 1986



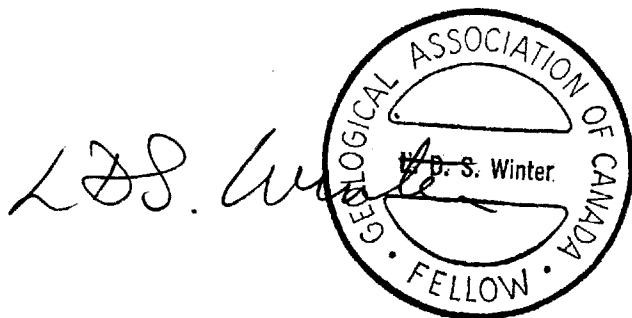
## REFERENCES

1. Assessment Files, Ministère de l'Energie des Ressources, Val d'Or, Quebec.
2. Boyle, R. W. (1979)  
The geochemistry of gold and its deposits; Geol. Surv. Canada, Bull. 280.
3. Dresser, J.A. and Denis, T.C. (1949)  
Geology of Quebec, Vol III, Economic Geology, G.R. 20., Que. Bur. Mines. pp32-39 and 146-151.
4. Dugas, J., et al (1967)  
Metallic Mineralization in the Regions of Noranda, Matagami, Val d'Or and Chibougamau, Sp. Paper 5, Mineral Deposits Service, Ministère de l'Energie et des Ressources, Quebec.
5. Germain, M. (1984)  
Ministère de l'Energie et des Ressources, Quebec.  
Compilation Geologique 32F 02-200-0201
6. Hodgson, C.J. and MacGeehan, P.J. (1982)  
A review of the Geological Characteristics of "Gold-only" Deposits in the Superior Province of the Canadian Shield in Geology of Canadian Gold Deposits, CIM: Sp Vol. 24, pp. 211-229
7. Longley, W.W. (1937)  
Grevet Map - Area, Abitibi District, Que. Bur. Mines, Ann. Report. 1936, PtB. pp 61-77
8. Wisser, E. (1960)  
Relation of ore deposition to doming in the North American Cordillera; Geol. Soc. Am., Mem. 77

CERTIFICATE OF QUALIFICATION

- I, Lionel Donald Stewart Winter do hereby certify:
1. that I am a geologist and reside at 1849 Oriole Drive, Sudbury, Ontario, P3E 2W5,
  2. that I am a Fellow of the Geological Association of Canada,
  3. that I graduated from the University of Toronto in Mining Engineering in 1957 with a Bachelor of Applied Science, from McGill University, Montreal in 1961 with a Master of Science (Applied) in Geology,
  4. that I have practised my profession continuously for 25 years,
  5. that my report on the Quevillon Township property, Abitibi East County, Quebec is based on my personal knowledge of the geology of the area, on a review of published and unpublished information on the property and surrounding area and a property visit.
  6. that I have no personal, direct or indirect interest in the Quevillon township property, Abitibi East County, Quebec or any adjacent properties, nor do I hold or intend to hold any shares of Highland-Crow Resources Ltd. and I have written this report as a totally independent consultant.

L.D.S. Winter  
B.A.Sc., M.Sc., F.G.A.C.  
February 14, 1986



GEOLOGICAL REPORT

QUEVILLON PROPERTY  
QUEVILLON AND FRANQUET TOWNSHIPS  
QUEBEC

FOR

HIGHLAND CROW RESOURCES LTD.

**Ministère de l'Énergie et des Ressources**  
**Service de la Géoinformation**

Date: 18 SEP. 1986

No G.M.: 43184

L. Halle, B.Sc.  
July 22, 1985



## TABLE OF CONTENTS

	PAGE
INTRODUCTION	1
PROPERTY	1
LOCATION AND ACCESS	3
PHYSIOGRAPHY AND VEGETATION	3
PROPERTY GEOLOGY	3-4
MINERALIZATION	5
CONCLUSIONS	5
REFERENCES	6

## APPENDIX

1. SAMPLES SENT FOR ASSAY

- FIGURES
1. Location
  2. Regional Geology
  3. Property Geology
  4. Traverse Lines

## INTRODUCTION

During the spring of 1985, Highland Crow Resources Ltd. staked a contiguous group of unpatented mining claims and lots in Quevillon (28 claims) and Franquet (34 lots) townships. Following preliminary research done by L.D.S. Winter, the company contracted the writer to carry out a reconnaissance mapping and geochemical sampling program.

The total property was reconnaissance mapped by pace and compass traverse using a 1:20,000 base map. A total of 42 selected rock samples were collected, 13 of which were analyzed for gold. Representative samples of all lithologic types and observed mineralization were collected for future reference.

This report summarizes the findings of the above survey.

## PROPERTY

The Quevillon property is located approximately 20 kms north of the village of Label sur Quevillon, along the common boundary between Quevillon and Franquet Townships (Figure 1).

The claim group consists of 28 contiguous unpatented mining claims in Quevillon Township and 34 lots in Franquet Township (Figure 2).

### QUEVILLON TOWNSHIP

<u>Licence</u>	<u>Claims</u>	<u>Total</u>
425830	1-5	5
425831	1-5	5
425832	1-5	5
425833	1-5	5
425834	1-5	5
425835	1-5	3
		<u>28</u>

FRANQUET TOWNSHIP

<u>Licence</u>	<u>Claims</u>	<u>Lot</u>	<u>Range</u>
425801	1	65	2
425801	2	64	2
425802	1	67	2
425802	2	66	2
425803	1	69	2
425803	2	68	2
425804	1	71	2
425804	2	70	2
425805	1	71	1
425805	2	70	1
425806	1	69	1
425806	2	68	1
425807	1	67	1
425807	2	66	1
425808	1	65	1
425808	2	64	1
425823	2	58	1
425923	1	59	1
425822	2	60	1
425822	1	61	1
425821	2	62	1
425821	1	63	1
425824	1	63	1
425824	2	62	2
425825	1	61	2
425825	2	60	2
425826	1	59	2
425826	2	58	2
425827	1	57	2
425827	2	56	2
425828	1	55	2
425828	2	54	2
425829	1	53	2
425829	2	52	2

All claims are held in the name of D.G. Innes, R.R. #1, Wasi Road, Callander, Ontario.

### LOCATION AND ACCESS

The property is located in the northeast corner of Quevillon township and the adjacent southeast corner of Franquet township in northwestern Quebec at  $49^{\circ} - 10' N$  latitude,  $76^{\circ} - 55' W$  longitude (Figure 1). The centre of the claim group is approximately 20 km north of the town of Lebel sur Quevillon, a small pulp and paper town 120 km north of Val d'Or, Quebec.

The property is crossed by provincial highway #113, a paved, all-weather road, which provides excellent access to all parts of the property. A few bush tracks and drill roads were noted away from highway #113.

### PHYSIOGRAPHY AND VEGETATION

Relief on the property is characterized by gently rolling topography with the ridges generally being overburden covered and the lower areas occupied by muskeg, or small streams. Bedrock exposure is less than 10% on the claim group.

The forest cover is mainly immature spruce, pine and poplar.

### PROPERTY GEOLOGY

The Quevillon property is underlain mainly by a sequence of intermediate to felsic volcanics (Figure 2 and 3). Interflow tuffs and sediments have been cut in diamond drilling; however, these rocks were not observed in outcrop. The volcanic sequence appears to strike northeasterly and dip steeply to the northwest. A sill like body of quartz-feldspar porphyry conforms with the stratigraphy through the control part of the property and is well exposed along highway #113.

A synvolcanic gabbroic intrusion was mapped in the north-central part of the claim group and late northeast-trending diabase dikes cut all of the aforementioned rocks.

The rocks have been metamorphosed to upper greenschist facies. There is some suggestion of northwest and northeast faulting.

The property was systematically traversed by pace and compass survey on lines approximately 400 m. apart. Individual outcrop areas were traversed in more detail (Figure 4).

Much of the claim group is underlain by intermediate to mafic flows. In the northern part of the claim group amygduloidal flows were observed over several hundred meters. In other areas, the flows are generally porphyritic to massive.

Felsic volcanics are generally massive to quartz-porphyritic. Commonly these lithologies are highly schistose with up to 2% disseminated pyrite. Other felsic exposures have flow-banded textures although some of these exposures may represent felsic tuffs. The quartz-felspar porphyry body in the central part of the claim group may represent a synvolcanic intrusion. No contacts with the enclosing rocks were observed. This rock is locally quite schistose and is intensely altered to sericite.

No major faulting or folding was defined in the mapping. Nevertheless a major deformational event is indicated by a well developed east-northeast schistosity in all parts of the property. This deformation is especially well represented in the quartz-felspar porphyry. A weakly developed north trending cleavage records a second structural signature.

## MINERALIZATION

The relatively scarce outcrop makes any assessment of the claim groups mineral potential difficult. Past drilling (on INPUT conductors) has identified an intensely altered volcanic-sediment sequence favourable for the location of gold and base metal concentration. A mineralized tuff intersected in diamond drilling returned 4.0 grs. Au/ton over 0.3 m in the eastern part of the claim group.

Both the northern and central volcanic sequences are highly altered and marked by zones of carbonatization, silicification and sericitization. The felsic tuffs in the southern part of the claim group also exhibit strong alteration and considerable disseminated sulphides.

A large quartz-carbonate vein up to 7 m. in width was observed cutting the felsic porphyry in the southwest corner of the claim group. The vein is hosted by highly carbonatized felsics and both the vein and the host contain considerable pyrite locally.

## CONCLUSIONS

The presence of a complex highly altered volcanic sequence intruded by both mafic and felsic sills offer excellent potential for metal concentration. Intensive exploration program has been planned by Highland Crow Resources for 1986 to further investigate the property's potential.

REFERENCES

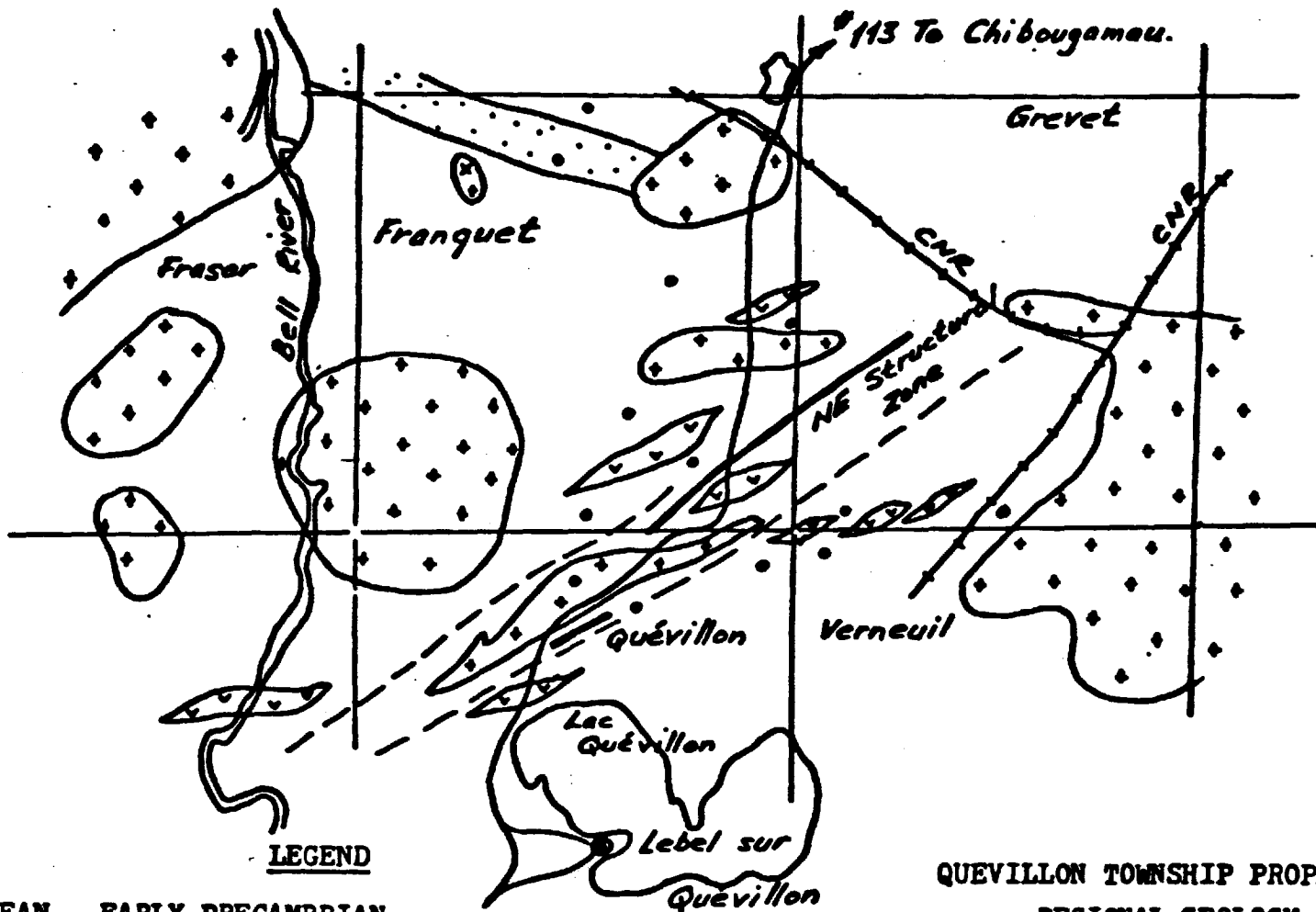
1. Assessment Files, Ministere de l'Energie des Ressources, Val d'Or, Quebec.
2. Dresser, J.A. and Denis, T.C. (1949)  
Geology of Quebec, Vol. III, Economic Geology, G.R. 20.,  
Que. Bur. Mines. pp32-39 and 146-151.
3. Germain, M. (1984)  
Ministere de l'Energie et des Ressources, Quebec.  
Compilation Geologique 32F 02-200-0201.
4. Longley, W.W. (1937)  
Grevet Map - Area, Abitibi District, Que. Bur. Mines, Ann.  
Report. 1936, PtB. pp 61-77.

*Laurent A. Denis  
Geol. Eng.*

## APPENDIX





### 1. List of Samples Sent for Assay




- Sample No. 2: Laminated felsic tuff; sericitic with 1 to 2% disseminated pyrite.
- Sample No. 8: Felsic sericitic schist with a pale brown weathered surface.
- Sample No. 9: Crystal tuff?; carbonatized with a brown weathered surface; qtz eyes to 1 mm.
- Sample No.17: Quartz - feldspar porphyry with 10% qtz phenocrysts to 2 mm. Schistose with sericite development.
- Sample No.22: Highly chloritized rhyolite with a few quartz eyes; 1 - 2 % pyrite with a gossorous weathered surface.
- Sample No.30: Chloritized intermediate? flow with minor disseminated pyrite; highly schistose.
- Sample No.35: Highly chloritized rhyolite with brown carbonate alteration; schistose.
- Sample No.42: Highly chloritized and sheared gabbro with 2% disseminated pyrite.
- 5 Samples: Mineralized quartz-carbonate veins and associated wall rock.



**LEGEND**

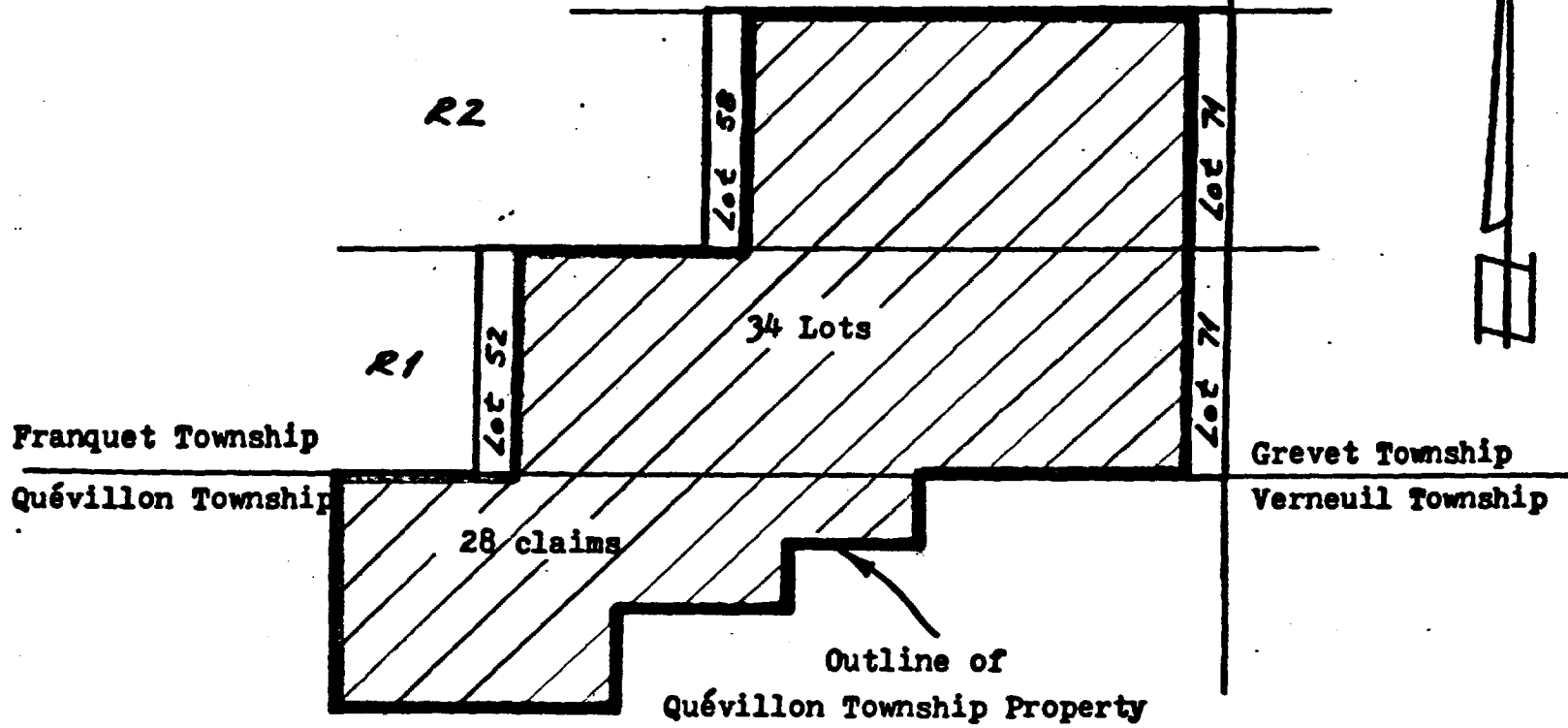
**ARCHEAN - EARLY PRECAMBRIAN**

-  Granitoid intrusive
-  Metasediments
-  Felsic metavolcanics
-  Mafic to Intermediate metavolcanics

-  geological contact
-  gold or base metal mineralization
-  diabase dike



QUEVILLON TOWNSHIP PROPERTY  
 REGIONAL GEOLOGY  
 QUEVILLON TOWNSHIP  
 HIGHLAND-CROW RESOURCES LIMITED



QUEVILLON TOWNSHIP PROPERTY  
 CLAIM BLOCK  
 QUEVILLON TOWNSHIP  
 QUEBEC

HIGHLAND-CROW RESOURCES LIMITED

Scale: 1: 50 000