
1. TITLE PAGE



Report for

## *Solana Petroleum Corporation*

On the

# Northwestern Ontario Gold & Base Metal Properties

Mine Centre Area
Rainy River District



Held by

## *Hexagon Gold (Ontario) Limited*





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## 2. TABLE OF CONTENTS

## FIGURES



## MAPS



## TABLES

## 3. SUMMARY

Solana Petroleum Corporation ("Solana") is entering into an option agreement with Hexagon Gold (Ontario) Limited ("Hexagon") to acquire a 100% property interest in a large block (approximately 19,000 acres) of mining claims in Northwestern Ontario, near Mine Centre, located between Thunder Bay and Fort Frances. The claims have been acquired by Hexagon both through claim staking and optioning.

The claim groups described here are situated within a wedge-shaped area along a structurally deep-seated Archean subprovincial boundary. Such deep-seated structures are known to be favourable for both precious and base metal deposits.

For ease of discussion, the Hexagon claims have been divided into three Groups based upon location, geology and style and type of mineralization; the Bad Vermilion Group, the Cousineau Group, and the East Block Group.

The area of primary interest is the old Mine Centre gold camp on the Bad Vermilion Group of claims. Within this group are a number of gold deposits that were developed and mined during the late 1800s and again in the 1920s and 1930s. Two past producing gold mines occurring on the Hexagon property are especially significant: the Foley Mine and the Golden Star Mine which, combined, produced slightly in excess of 16,000 ounces of gold. Lesser amounts of gold also came from eleven other mining locations on the Bad Vermilion Group.

This gold occurs as coarse grains in discrete quartz veins that range up to several metres in width. While many of the veins are relatively narrow by today's standards, recorded grades for these past producers were typically in excess of 0.5 ounces per ton.

More than 100 gold-bearing veins are known to occur on the Hexagon property, largely within a large tonalite intrusive that is the primary host for the gold veins. The challenge is to find where gold occurs in high enough concentrations to be of economic significance, as was the case on the Foley Mine and Golden Star Mine properties in the past.

Neither the Foley Mine nor the Golden Star Mine has been explored underground in recent years. Several companies have carried out surface work on individual deposits (the last in the 1980s), but they never had access to all of the higher priority properties. Hexagon's acquisition of the current large claim group, that encompasses all of the past producing mines as well as most other significant deposits, offers a unique opportunity to carry out a comprehensive gold exploration program such that was not before possible.

The Company also holds two large blocks of claims to the east of the old Mine Centre gold camp that have good base metal potential. One of these claim blocks, the Cousineau Group, is underlain in part by a sequence of mafic, intermediate and felsic volcanic rocks including tuffs and chemical sediments that locally contain sulphide mineralization. Many of these rocks exhibit alteration and chemistry that is indicative of typical volcanogenic massive sulphide deposits elsewhere. Previous work on the property has identified a number of base metal showings and interesting geophysical anomalies. This very favourable geological environment has good potential to host additional base metal deposits. Several historical gold showing also occur within the Cousineau Group that should be examined using current geological models and exploration techniques.

The Company's East Block claims has potential largely for base metals associated with mafic rather than felsic volcanics.

Hexagon's expenditures in connection with the properties from 1998 to 2002, as well as total arm's length expenditures by all parties on the properties in 1996 and 1997 totalled over $137,000. The work largely consisted of bulk sampling and test milling of veins on the Bad Vermilion Group.

The primary focus of the exploration program proposed in this report is the gold potential of the Foley Mine property. Phase I of the proposed program includes: line cutting, geophysics, and deep diamond drilling to investigate the nature of the Foley ore zones below the deepest (850 foot) level developed to date. Phase II includes some additional work on the Foley Mine (surface trenching and sampling, to identify extensions of existing mineralized veins and additional new mineralized veins, and dewatering and re-sampling of the underground workings). Phase II also proposes work on other parts of the Hexagon property, including the Golden Star Mine.

## 4. INTRODUCTION AND TERMS OF REFERENCE

Solana is entering into an option agreement to acquire an interest in the mining properties held by Hexagon in the Mine Centre area. Solana contracted with Northwest Mineral Development Services ("NWMDS") to prepare independent reports on these properties. The claims that are the subject of this report are part of these properties being acquired.

According to information provided by the Companies, the terms for the acquisition of the properties are as follows:

1. Solana will acquire the Mineral Properties held by Hexagon in their entirely, receiving a 100% property interest in exchange for 5,000,000 Solana common shares after a 1:10 share consolidation is approved by Solana shareholders and the TSX Venture Exchange.

2. The Vendor of the Mineral Properties is Hexagon. The acquisition is non-arms-length as Hexagon is beneficially owned by Solana directors, J. Bruce Carruthers II and John A. Bolen.

3. The vendor's out-of-pocket costs in connection with the Mineral Properties from 1998 to 2002, as well as total arm's length expenditures by all parties on the properties in 1996 and 1997 total $1,137,728.

4. Consideration for the Acquisition of a 100% interest in the Mineral Properties will be the issuance of five million (5,000,000) post-consolidation Common Shares of Solana, at a deemed value of $0.20 per share of Hexagon. Such shares will be subject to the escrow requirements as set out in Exchange Policy 5.4. Hexagon will also retain a production royalty equivalent to a two percent (2.0%) net smelter return (NSR) in perpetuity on all future sales of any and all minerals produced form the Mineral Properties. No other fees or compensation is payable to Hexagon by Solana in connection with the Acquisition.

5. Under the terms of the Acquisition, Solana is required to make the following minimum expenditures (the "Work Commitments") on the Mineral Properties within the time period from the closing date of the Acquisition as indicated below, so as to evaluate the Mineral Properties and keep them in good standing with regard to Provincial assessment work requirements, option payments to property owners and property taxes.
    a) $200,000 within the first anniversary;
    b) An additional $400,000 within the second anniversary;
    c) An additional $500,000 within the third anniversary;
    d) An additional $600,000 within the forth anniversary;
    e) An additional $800,000 within the fifth anniversary.

    Failure by Solana to meet the Work Commitment, after suitable allowances for a default remedy period, will result in the reversion of a 50% participating interest in the Mineral Properties to Hexagon.

The terms of reference of the project were to provide an impartial report on the properties that a) summarized the general geology, economic geology, and previous work carried out on the property, b) provided some indication of the mineral potential of various parts of the property, and c) provided recommendations for future work.

The data and information used to prepare this report comes largely from geological reports of the Ontario Government (Ministry of Northern Development and Mines) and from the Ministry's Assessment Files in the Resident Geologist's Office in Kenora (AFK). Some data was also obtained

from internal Hexagon reports and internal reports of other companies that were provided by Hexagon.

The status of all un-patented mining claims, which make up a majority of the property, was confirmed from the Ministry website, as of April 18, 2003, and are listed in Appendix "A". This list shows the claim numbers, the number of units that make up each claim, the recording dates and expiry dates of each claim, assessment work requirements, assessment work applied, and the total reserve.

A number of the claims that comprise the property are held under various option agreements. While these agreements were examined by NWMDS, no legal review was undertaken. Leased and patented claims held by Hexagon under option are listed in Appendix "B".

Many of the mineral deposits and showings on the Hexagon property have been examined in the past by both the Principal Consultant and the Associate Consultant of NWMDS in their past capacities as Regional Geologist and/or Resident Geologist with the mining departments of the Ontario Government. The Principal Consultant's most recent visit to the property was in May, 2000. One day was spent examining a number of the more significant mineral occurrences on the Foley Mine claims, and the area in the vicinity of the Nugget Vein, where Hexagon had recently carried out stripping and trenching, and was proposing additional bulk sampling. The Associate Consultant's most recent visit to the property was for one day on June 3, 2002. During this one-day visit, a number of the more significant mineral occurrences on the Bad Vermilion properties were again examined. In particular, the nature and extent of the sampling work done on the Nugget and Baseline veins in 2000 was examined and verified to the extent possible.

## 5. DISCLAIMER

The data provided in this report is based upon existing data and information only. Except for the limited field observations noted above, NWMDS was not involved in the acquiring of any new data.

Every attempt was made to review all pertinent, available information for this report. Because of the exceptionally large number of Government reports, assessment work reports, and other public and private documents dealing with the properties, the historical nature of much of the information, and the fact that NWMDS was not involved with the property while any of the work referred to was being carried out, little of the data referred to in the report could be verified through other sources. Assay values and intersections quoted in third-party reports could seldom be checked against the original source documents, which were, in most cases, unavailable.

The status of the un-patented mining claims held in Hexagon's name was verified, as of April 18, 2003. Documentation concerning the status of the leased and patented mining claims under option from Golden Star Mine Centre Exploration Ltd. and Russell C. Cone was reviewed but was not verified from the Land Registry.

The relevant option agreements were also reviewed, largely to determine claim numbers and general conditions. No in-depth, or legal interpretation of the agreements has been attempted.

## 6. PROPERTY DESCRIPTION AND LOCATION

### 6.1 SIZE OF THE PROPERTY

The property controlled by Hexagon consists of a total of 494 mining claim units, each approximately 40 acres or 16 hectares in size, for a total size of approximately 19,760 acres.

### 6.2 LOCATION

The property is situated within a large rectangular area located in unorganized territory in Northwestern Ontario, approximately 65 kilometres east of Fort Frances, Ontario (Figure 1). The village of Mine Centre is located near the northern edge of the claim groups. All claims lie within NTS 52-C/10, C / 15 and C/16 map sheets.

### 6.3 CLAIM NUMBERS

Hexagon holds large blocks of contiguous and non-contiguous mining claims and leases within this large rectangular area. Because of the large number of claims comprising the property, claim summaries downloaded from the Ontari,o Ministry of Northern Development and Mines website on April 18, 2003 are presented in Appendix A. Expiry dates for all the un-patented mining claims are indicated on these summaries. Most of the claims lie within the Kenora Mining Division.

### 6.4 NATURE & EXTENT OF THE ISSUER'S TITLE AND INTEREST

Hexagon is 75% owned by Hexagon Resources Inc., a U.S. based company with offices located in Flagstaff, Arizona, U.S.A. The remaining 25% is owned by John.A.Bolen and Associates of Fort Frances, Ontario.

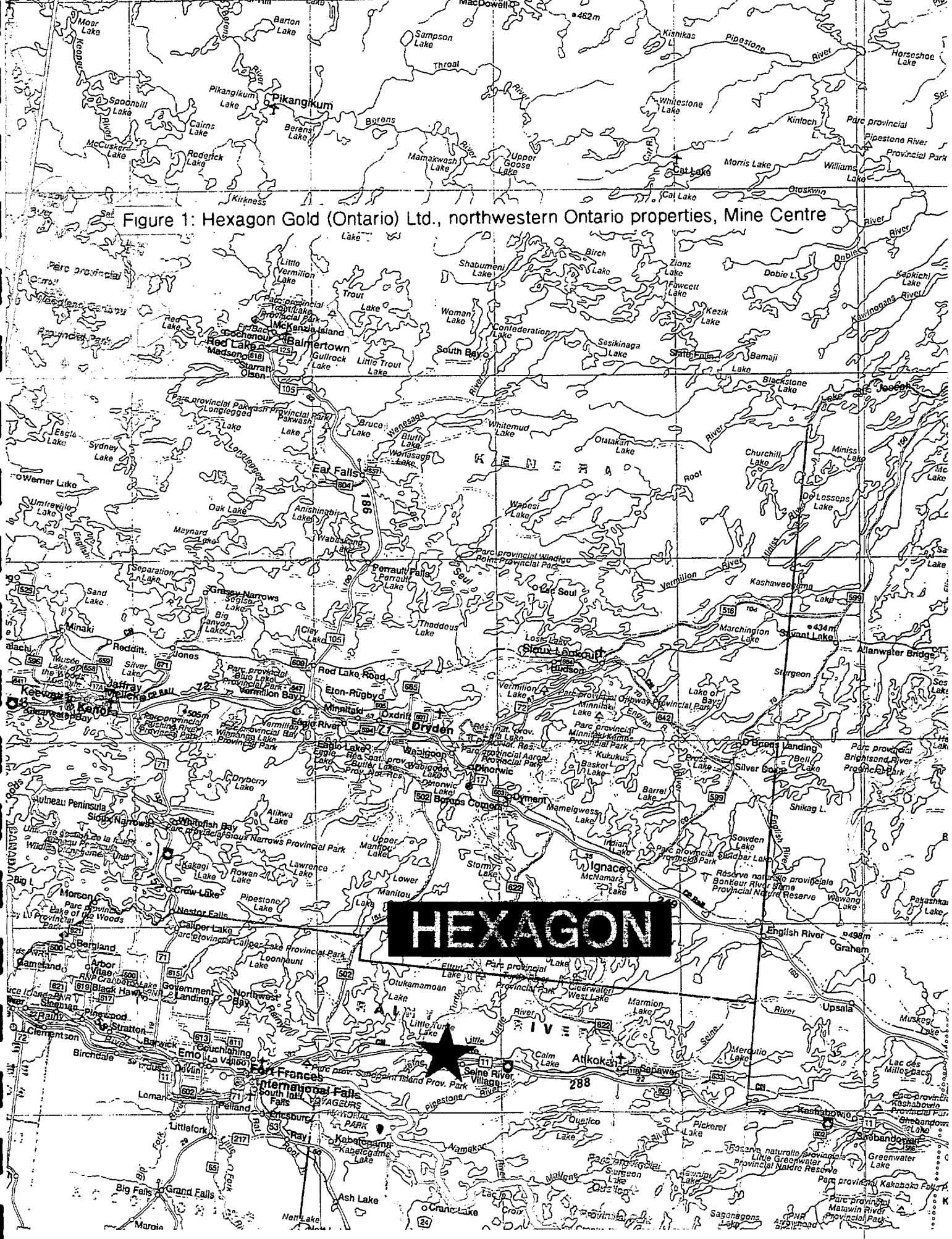



Figure 1: Hexagon Gold (Ontario) Ltd., northwestern Ontario properties, Mine Centre

Most of the claims comprising the property are held in Hexagon's name. Many were acquired by staking, others were acquired through option agreements. Some of the optioned properties are subject to annual option payments and/or royalties, advance royalties, or sliding-scale ore purchase payments. A summary of these arrangements is provided below.

Because of the large number and the distribution of the claims, the property has been divided into three groups based upon location, geology, and style and type of mineralization:

1. Bad Vermilion Group
2. Cousineau Group
3. East Block Group

| *Claim Group* | *# of Claim Units* | *Acres* | *Ownership/Option* |
|---|---|---|---|
| Bad Vermilion Group | | | |
| Cone Claims | 16 Crown leases | 640 | Russell C.Cone |
| Golden Star Claims | 27 Crown leases | 1,080 | 100% Hexagon |
| " | 9 patented claims | 60 | " |
| Bolen/McCormick Claims | 84 units | 3,360 | 100% Hexagon |
| Hexagon Claims | 126 units | 5,040 | 100% Hexagon |
| Cousineau Group | 146 units | 5,840 | Louis Cousineau |
| East Block Group | 86 units | 3,440 | 100% Hexagon |
| Totals: | **494 units** | **19,760 acres** | |

### 6.4.1 Bad Vermilion Group

Properties in this group (Map 1) are held under three different arrangements.

The Cone claims consist of 16 Crown leases (Mining Rights only) totalling approximately 640 acres. Hexagon reportedly controls these leased claims under a sliding-scale ore purchase agreement with Russell C. Cone. Under this agreement, a payment of $40,000 on or before October 1, 2003 is required to exercise the option, with subsequent annual advanced ore purchase payments of $15,000 required, which are creditable against actual ore purchases. While Hexagon controls these mining leases, they currently remain in the name of Russell C. Cone.

The Golden Star claims consist of 27 Crown leases and 9 patented mining claims totalling approximately 1,440 acres. The leased claims all include both Mining and Surface Rights. Total Mining Lease Rent due to the Crown on these leases, as of May 9, 2003 was $4,485.58. Some of the patented claims have both Mining and Surface Rights, while others have Mining Rights only. All of these

# 7. ACCESS, PHYSIOGRAPHY, LOCAL RESOURCES AND INFRASTRUCTURE

## 7.1 Access

Highway 11 passes through the property, and a number of gravel and forest access roads provide access to the numerous known mineral deposits and showings.

The Bad Vermilion Group can be easily accessed by the Shoal Lake Road, which takes off from highway 11 one kilometre east of the village of Mine Centre, and runs south the full length of the claim groups. This is a dirt road, and may require some upgrading to move heavy equipment around the property.

## 7.2 Physiography

The property has typical Canadian Shield topography with topographic features rarely exceed 50 metres in elevation. Outcrop varies between 5 and 25%. Areas between outcrops are typically linear in shape, and often are structurally controlled.

The area supports a boreal forest of pine, poplar, spruce and birch. Considerable logging has taken place over the years.

The Bad Vermilion Group occur largely along a height of land between two large lakes, Bad Vermilion Lake to the northwest and Shoal Lake to the southeast. Outcrop density in this area is good.

## 7.3 Local Resources and Infrastructure

Highway 11, the Canadian National Railroad, and a large capacity power line all pass through the property. Railroad sidings are already in place at Mine Centre should loading facilities be required.

Seventy kilometres to the east is the town of Atikokan and the site of the former Steep Rock Iron Mine. Loading and storage facilities for this former large open-pit iron mine are still in place, although they would require improvements to meet the needs of any new mining-milling operation. The Town of Atikokan and the Atikokan Economic Development Corporation have reportedly expressed an interest in seeing this site used for this purpose.

The property lies in close proximity to three Indian Reserves, IR 23 and IR 23A, immediately south of part of the Cousineau Group, and IR 23B, to the southwest of the Bad Vermilion Group.

### 7.4 CLIMATE

Climate is typical of northwestern Ontario. At the station in Fort Frances, 65 kilometres to the west, daily mean temperature is -16 degrees C. in January and +20 degrees C. in July. Mean annual rainfall is 580 mm and mean annual snowfall is 150 cm.

### 7.5 SUFFICIENCY OF SURFACE RIGHTS, WATER & OTHER REQUIREMENTS FOR MINING

Given the large area controlled by Hexagon (over 19,000 acres), there is more than sufficient land area to carry out future mining operations, especially on the Bad Vermilion Group. Process water would be available from either Bad Vermilion Lake or Shoal Lake, and power and railroad sidings are available along the Highway 11 corridor, as noted above.

## 8. MINING AND EXPLORATION HISTORY

### 8.1 SUMMARY

Gold was first discovered in the Mine Centre area in 1893. There were two early periods of development of gold properties within the area of the Bad Vermilion claim group, the first in the late 1800s, and the second in the 1920s and 1930s.

Of the numerous mining properties in the region, only three - the Foley Mine, the Golden Star Mine and the Olive Mine - produced significant amounts of gold. In 1916, the Port Arthur Copper Company Limited started to develop a copper deposit but production was limited to that year only. Only the Foley Mine and the Golden Star mining operations were located on claims currently held by Hexagon.

The mine that produced the most gold in the area is the Golden Star, with reported production of 10,758 ounces. This mine was accessed by two shafts, 537 feet and 87 feet deep, and has over 2,000 feet of lateral work. It is interesting to note that there were reportedly few surface showings to justify the initial expenditures on the property. Results apparently became encouraging only once the first level was reached (Sherritt Gordon Mines, 1982).

The best-developed property is the Foley Mine, which produced 5,267 ounces of gold. The Foley ore bodies were accessed by three shafts, the deepest reportedly being 850 feet deep. Research of the historical records by J.Bolen (pers.comm.) indicates over 3.5 kilometres of underground development work at the mine. Sketches of underground workings from the earliest period of production (1898-1901) were found in the Assessment Files Kenora and a few examples from both the Golden Star Mine and the Foley Mine (#1 Shaft, and Lucky Joe Shaft) are included in Appendix D. No plans, cross-sections or assay data are available for

that period. Mine plans at scales of 1" to 20' and 1" to 30' from the period 1927-1928 are on file at the Resident Geologist's Office, Kenora, as discussed further below.

Most of the gold produced from the old Mine Centre gold camp was extracted before the turn of the century. Although the 16,000 ounce, total production figure may not be too impressive by today's standards, considering the times, small labour forces, short periods of production, and equipment used at the time, it may be seen in a different light.

Why the mines of the area ceased production at the turn of the century has not been documented, but was probably due to a recession that took place in 1898-99. In addition, a forest fire reportedly swept through the area in 1910, destroying all the gold mills but one.

Other commodities historically targeted in the general Mine Centre area (in most cases not on claims currently held by Hexagon) include iron, base metals, and more recently titanium, platinum group metals (PGM) and cobalt. Iron was early discovered within the gabbroic intrusion lying between Seine Bay of Rainy Lake and Bad Vermilion Lake, between the Bad Vermilion anorthosite and the Mudge Lake trondhjemite, and was investigated initially in 1918 and again in the 1940s and the 1950s. More recently, the same formation has been the target of exploration for titanium. Since the 1950s, exploration in the general Mine Centre area has turned towards base metals, and work has been focussed on the greenstone belt extending between Swell Bay of Rainy Lake to Glenorchy in the east, and across the Quetico fault into Bennett Township. Both volcanogenic and gabbro hosted types are present. More recently, PGM and cobalt have been found north of the Quetico fault in gabbroic rocks.

### 8.2 Prior Ownership and Work Carried Out

Unless more specifically referenced, the data and information referred to in this section (8.2) was obtained from the Assessment Files in the Kenora Resident Geologist's Office (AFK).

#### 8.2.1 Bad Vermilion Groups

Exploration and development work on the mining properties of the Bad Vermilion Group took place during three periods: in the late 1800s, when most of the properties were first brought to production; in the 1920s and 1930s, when further development work and some production was undertaken on specific properties; and from 1940 to the present, when surface exploration was carried out sporadically throughout the area.

Most noteworthy of the more recent work are three programs by various companies. The first of these was a diamond drilling program by Corporate Oil and Gas Ltd. in 1979-80, in a joint venture performed on the Foley and Ferguson

properties, as well as the McKenzie-Gray property (not included in the Hexagon property). Forty-nine holes were drilled, totalling 11,119.7 ft. (Huston 1981)

In 1981 and 1982, Sherritt Gordon Mines Ltd. evaluated a large area that included the same properties plus the Decca, Manhattan, Lucky Coon and much of the area presently called the Bolen-McCormick claims. Their work included geological mapping and an extensive trenching and sampling program. A sampling program was also conducted on the Foley tailings (Sherritt Gordon Mines, 1982 and 1983).

In 1986-87, Orofino Resources Ltd. optioned a number of parcels of ground held by Jack Bolen, including most of the ground now held as the Bolen-McCormick claims. The company performed broad surveys over the Bad Vermilion tonalite/trondhjemite intrusion, but only drilled five short holes as follow-up.

Details of these three programs, and others carried out on the Bad Vermilion Group, are described below.

*8.2.2.1 Cone Leases - Foley Mine*

Work done on the Foley Mine property (Map 1 and Figure 2) extends back to the late 1800s. Three shafts were sunk, and considerable underground development work, consisting of drifts, crosscuts and winzes, was carried out at this time. Recorded production during this early period was 4,412 ounces of gold (Table 1, p.32).

Two more recent periods of development and production on the Foley Mine property were carried out in 1922-1927 and 1933.

During the period 1922-27, British Canadian Mines, Ltd. reinitiated underground development work and mill reconstruction at the Foley Mine. This work was done from the existing North Shaft, put down on the Bonanza Vein. Little work appears to have been done on the upper levels. The shaft was extended to the 400' level, from which a winze was put down. New levels were established at 500, 600, 725, and 850 feet. Mine plans on file at the Resident Geologist's Office, Kenora, document the 100, 150, 200, 300, 400, 500, 600 and 850 levels (there is no documentation of any lateral development at the 725 level). The plans show that drifting was done on the Bonanza Vein at all levels (except the 725) and that crosscuts were made to the Jumbo Vein on the 150, 200, and 400 levels, and to the West Vein on the 400 level only, but little drifting done. However, the only assay data shown on these plans is for faces on the 600 level, dated from December 1926 to January 1927. These are on the Bonanza Vein, for a short (200') length at its north end and for an even shorter (60') length at its south end. The widest assay width shown is 24" at $6.59/ton (gold valued at $20.64 /ounce in 1927), and the highest assay $18.54 over 18". Most assays are in the $3 to $6 range. Since these figures represent only short

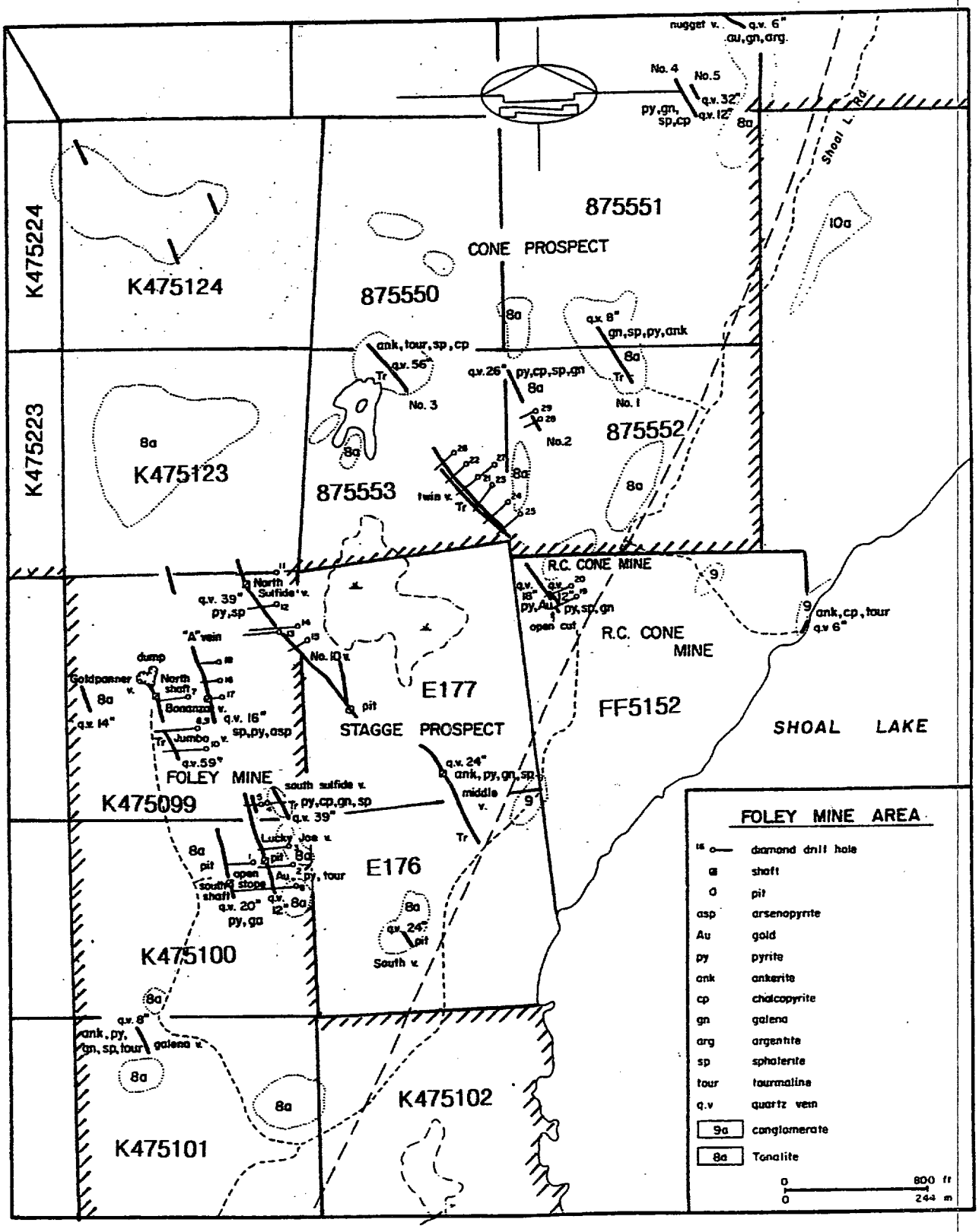



Figure 2: Geology of the Foley Mine area (adapted from Poulsen 1984: Fig. 17)

sample lengths, these values should not to be considered representative of the tenor of the Bonanza Vein in general. No production is documented from this period.

Company news releases and newspaper articles from the period 1922-1927, recently obtained from the Kenora Resident Geologist's office of the Ministry of Northern Development and Mines, and reviewed by the authors, noted that, in the lower levels of the mine, lamprophyres were encountered, gold values were encountered in the "schisted" wall rock as well as the veins, and that the veins appeared to be widening with depth. The implication of these observations, from the perspective of British Canadian officials, seemed to be that the nature of the Foley ore deposit was changing with depth. The following references seem to support this conclusion.

In 1925, the Ontario Department of Mines (Sutherland 1925) reported that British Canadian carried out a drilling program targeted to intersect the Foley ore zones at depth (i.e. below the 850 foot level). Sutherland noted that the deep drilling was done in three holes, two from surface for lengths of 1.188 feet and 1, 192 feet respectively, and one from the 400' level of the North Shaft for an 814 foot length . Also in 1925, the Company reported that a drill hole "has cut 26 feet excellent mill ore at a vertical depth of 860" (Canadian Mining Journal, May 29, 1925). Later, in 1926, Company official, J.M. Aiken noted that "the Jumbo vein assayed $10 (0.45 ounces per ton) across the 16 feet of width where recently cut at the 850 foot level (Northern Miner, July 31, 1926, p.2.).

Although relevant to the current situation, few of these observations could be verified beyond what was contained in the documents reported, and no verifiable assays could be found in available technical reports or other documents.

The later period of development and production (1933-1934) was done over an 8-month period by Russell Cone, Sr. Cone mined 800 tons from the South Shaft, producing 855 ounces gold and 149 ounces silver, for an average grade of 1.07 ounces per ton.

In 1936, Santa Fe Gold Mines Ltd. dewatered the South Shaft, and sampled underground, but operations were suspended shortly thereafter. No further underground work has been done since that time.

In 1979-1980, Corporate Oil and Gas optioned the property from Russell Cone, Jr. An attempt was made to assess the gold mining potential of the North Sulphide, "A", South Sulphide, Lucky Joe, Jumbo and Bonanza veins on the Foley Mine property and the adjacent Cone Mine by intersecting them in diamond drill holes to shallow depths, using AXT and BQW core diameters. All 29 holes (for a total of 6,703.8 ft) were drilled toward the west or south west, probably on the assumption that although steep, the veins dipped toward the east. Most of them intersected quartz veins at depths on the order of 100 to 150

ft. and some to about 250 ft., but assay results rarely ran higher than trace amounts of gold, over 1 to 3 ft widths. The highest value was 0.60 ounces gold per ton over a 1.6 ft. core length. These low assay values are not surprising due to the small sample size, the strong "nugget" effect present in these veins, and the fact that the assaying method used did not include screening and assaying of the coarse "metallic" gold (see section 21.1.1). Nine of these holes were drilled on the present Bolen-McCormick group, along strike and to the northwest of the Cone Mine.

Sherritt Gordon Mines Ltd. worked on the property under option during the field season of 1982. They mapped and sampled the vein system at surface, in detail. Their more detailed sampling gave significantly higher values in many places. More detailed results of this work are included in section 11.1.1.

*8.2.2.2 Cone Leases - Decca Vein*

At the Decca Mine property (Map 1), two shafts were sunk. The #1 shaft reaches 210 ft, with 25 ft. of drifting at the 100 ft. level. The #2 shaft was sunk to 110 ft. with drifting on the 100 ft level. The two shafts are 1200 ft. apart, and may be sunk on the same vein system, since both strike at about 330 degrees and dip steeply. Vein widths vary from 1 to 3 ft. on the Decca vein.

The little work recorded on the Decca property since the early years includes stripping done by Russell Cone, Jr. in 1980. Sherritt Gordon Mines optioned the Decca property in 1981-82 as part of the much larger area discussed above, and mapped and sampled the vein system in detail.

*8.2.2.3 Cone Leases - Ferguson Mine*

On the Ferguson property (Map 1 and Figure 3), four veins are present; the Daisy, the Government, the Big and the Finn. Shallow shafts were sunk on all 4 veins, for a total of 6, the deepest being to 45 m on the Daisy vein, on which 70 m of drifting was done. Both the Government and the Big veins are reportedly about 300 m long, but the depth of these veins is unknown.

In 1979-1980, Corporate Oil and Gas optioned the property from Russell Cone, Jr. An attempt was made to assess the gold mining potential of the Government, Big and Daisy veins by intersecting them in diamond drill holes to shallow depths, using AXT and BQW core diameter. All 14 holes (total length 3272.9 ft.) were drilled toward the northeast, probably on the assumption that although steep, the veins dipped toward the southwest. Most of them intersected quartz veins at depths on the order of 150 ft., but assay results rarely ran higher than trace amounts of gold over 1 to 3 ft widths (see above reference to "nugget effect"). The highest value was 0.46 ounces gold per ton over a 2 ft. core length in quartz vein material that contained sphalerite. One anomaly was a value of 1.00 ounce gold per ton over a 1.6 ft. core length in "vein material": however, a check assay ran 0.16 ounce gold per ton.

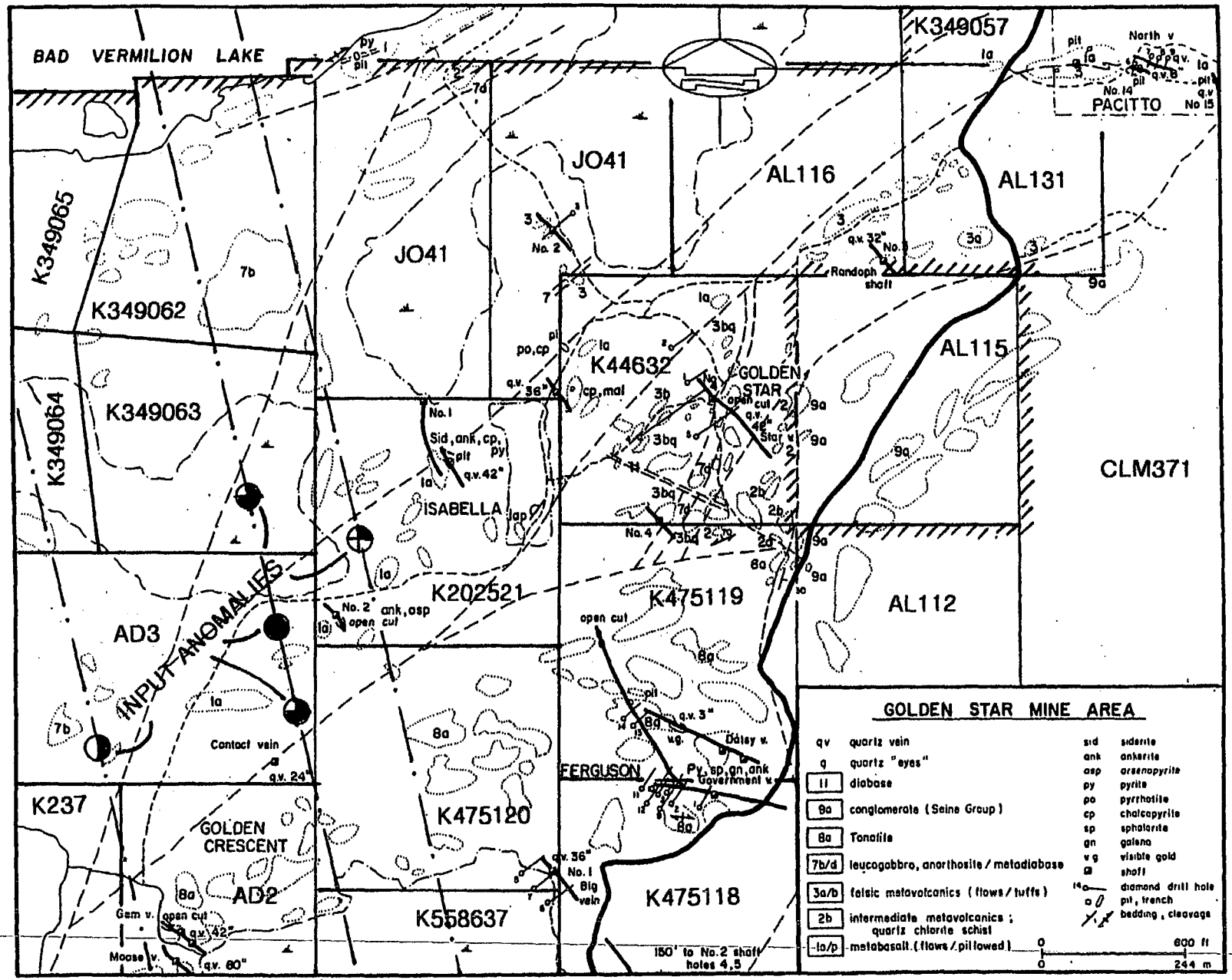



Figure 3: Geology of the Ferguson and Golden Star mines area (adapted from Poulsen 1984: Fig. 16)

Sherritt Gordon Mines Ltd. worked on the property under option during the field season of 1982.

*8.2.2.4 Golden Star*

At the Golden Star Mine (Map 1 and Figure 2), a total of 10,632 ounces gold was reportedly recovered during the initial period of development before the turn of the century (Table 1). Although many veins have been reported, all gold was taken out of the Golden Star vein, on which the #1 and #4 shaft were sunk. Average grade was reported to be 0.56 ounces per ton gold over a 3.5 ft. vein width. All the mining was done within 200 ft. of the shaft: holes drilled in the 1980s encountered gold up to 500 ft. from the shaft. The Golden Star vein and its possible northwest extension is traceable on surface for a distance of 2500 ft. Limited amounts (855 ounces) of gold was also produced from the property in 1934,1938, and 1941.

Copper was also discovered in the adjacent volcanic rocks, and reportedly, a small tonnage was shipped to a smelter in 1916. No records are known to exist of either grade or tonnage.

Following a chequered earlier history culminating in bankruptcy of Golden Star Consolidated Mines Ltd. in 1940, 8 claims were vested in a new company, Orelia Mines Ltd. Following an unsuccessful attempt to mill material from underground and from tailings from previous operations, no further underground work has been done at the Golden Star.

Surface exploration was done on the Golden Star property: in 1973-74 by Ciglen Investments; in 1981-89 by PIRP Holdings; and in 1984-85 under an option agreement with Cleyo Resources. G.F. Ennis (1979) reported that in the course of the 1973-74 program, 16 of the 19 known gold bearing veins on the larger property were located. He also reported that during this program, enough assessment work was completed to bring 13 unpatented claims to lease. In 1974, four holes were drilled on the Golden Star vein and its extension, and another on the vein on which the #2 shaft was sunk, its possible further extension to the northwest. The drilling on the Star Vein encountered the quartz porphyry dike, previously named the Hunky, that hosts the vein itself. Three of these holes were on the order of 300 ft. in length, encountering the vein at a vertical depth of about 150 ft. A longer hole was put down to test the depth extension of the Star vein at a vertical depth of about 600 ft., but according to Ennis, results were inconclusive: trace to 0.07 ounce gold per ton was assayed from 5 split core samples over a core length of about 10 feet at about this vertical depth. The fifth hole intersected a mineralized zone over a 15 ft. core length at about 250 ft. vertical depth, and assayed trace gold only: this despite information that samples taken underground about 150 ft to the northwest over about 4 ft. width during former mining operations assayed over 1 ounce gold per ton.

During the period 1981-1989, various ground and airborne geophysical surveys, stripping, trenching, and diamond drilling were done for P.I.R.P. Holdings and for Cleyo Resources under an option agreement. A 1980 airborne magnetic and electromagnetic survey done by the Ontario Geological Survey (OGS 1980) had identified a number of isolated anomalies (Figure 3) on the companies' ground, in the vicinity of the Isabella vein. Various ground VLF and vertical loop EM electromagnetic surveys were conducted in an attempt to locate these on the ground. An airborne magnetic and VLF electromagnetic survey flown by Terraquest in 1987 identified a number of northwest trending conductors in the same location as those identified in the earlier OGS survey. A limited diamond drill program tested one of these, along with a conductor earlier identified on the ground. Although no mineralized zones were encountered, a wide zone of shearing or faulting was identified, in a position that could be the extension to the northeast of the postulated Finger Lake fault. There is no record of any further drill testing of these conductors having been done.

*8.2.2.5 Bolen-McCormick Claims*

These claims contiguously link the four properties described above. For the most part, they overlie the tonalite/trondhjemite body. Numerous quartz veins that have the same general trend and characteristics as those on the Foley, Decca and Ferguson properties are present within this group. However, little work has been conducted since the early periods of gold activity, for which there is little record.

What has been accomplished began in about 1973 with a ground electromagnetic and magnetic survey by Ciglen Investments Ltd. over a large area that included both the present ground and their Golden Star property.

In 1979, Corporate Oil and Gas included a large portion of this ground in a report that also included the Foley and Ferguson properties.

In 1982, much of the ground was included in a geological survey done under option by Sherritt Gordon Mines from Russell Cone, Jr.

Following this, the ground was staked by Bolen and McCormick who included it in an option agreement with Orofino Resources Ltd. in 1986-1987. This company, in addition to other work on the whole 25-claim group (geological mapping, ground magnetometer, horizontal loop electromagnetic and humus geochemical surveys), did diamond drilling in five short holes on claims 875551, 875548, 875547 and 875544. They also carried out sampling and trenching of the better-known veins, including the Nugget, the Beaverdam and the Zinc veins.

At about the same time, Mine Centre Gold Venture Inc. staked most of the ground currently held as claim 1249432, and did ground electromagnetic and magnetic surveys over it. This was followed by diamond drilling of four holes

in the vicinity of the Finger Lake fault at Finger Lake, to test VLF conductors. At least one of these holes was targeted to test the presence of the fault zone, but did not intersect sheared rock.

Following the return of the 25-claim property from Orofino Resources Ltd. to the vendors, Bolen and McCormick continued exploration on a small scale, sampling and trenching known veins. These included the Nugget, the Beaverdam and the Zinc veins, among others. Bolen reports the Nugget vein to have a strike length of 600 ft. and an average width of 5 ft., and that approximately 50 samples averaged 1.02 opt gold (J. Bolen, personal communication).

In 1997 Bolen and McCormick established a grid over the 25 claims, consisting of about 30 km of line cut at 100 m intervals and stations at 25 m intervals. Geologic mapping was conducted by Bolen at 1:5000 scale, and 40 samples, mostly grabs, were taken from veins throughout the claim group and assayed for gold. The better-looking mineralization was sampled, in an effort to determine which veins contained gold rather than to determine true grade. Although many samples ran below detection limit of <0.001 oz per ton, most detected gold, and one sample assayed over 1 oz. per ton.

### 8.2.2 Cousineau Group

The east-west trending sequence of volcanic and meta-sedimentary rocks that runs across this group of claims has potential for, and has been explored for both base metals and gold. The earlier work on the claim group, dating back to the late 1800s, was focussed largely on gold. Most of the work carried out after 1940 was directed towards base metals, although several prospectors have continued to investigate the known gold showings in the area. The last company to hold these claims, prior to Hexagon, was Inco Limited, who held the property from 1990 to 1993 and carried out considerable work.

A summary of previous work is as follows:

1894-1997: Prospecting, trenching and sampling on the Alice "A" revealed a three-foot wide network of gold bearing veins.

1898: American-Canadian Gold Mining Company, on the Alice "A", sank two shallow shafts with crosscuts from each, and a put in a number of test pits. A two-stamp mill was installed, which reportedly milled 200 tons of ore before closing down. A 10-ton sample reportedly ran 0.63 ounces Au/ton.

1926: An association known as "The Mining Group" carried out further development work on the Alice "A". This work included trenching, test pitting and cleaning out old open cuts and shafts for test purposes. Results are unknown.

1940: Ed-Vic Exploration Ltd. carried out trenching and assaying on what is now Hexagon's claim 1050815. Stringers of chalcopyrite associated with quartz were reported.

1969: Noranda Mines drilled six drill holes, totaling 204.8 metres, on patented mining claim 683 P. This claim is not currently held by Hexagon, but is surrounded by Hexagon claims. The information on this work is shown on a map in an internal report by Inco. The best assay reported on the Inco map was 5.61% Zn over 0.15 metres. Gold was not reported. None of this information could be verified from data in the assessment files, and **it is not necessarily indicative of mineralization on the Hexagon property that is the subject of this technical report.**

1970: Northgate Exploration. The Inco compilation map noted above also shows three drill holes near the "J" zone, at the western edge of the claim group, but no information was found in the assessment files.

1970-89: Prospecting, sampling, and assaying was carried out throughout the Group by prospectors Louis Cousineau, Edward Cousineau, Ken Desjardine, L.Blondeau, A.E.LaFreniere, Stan McMillan, & R.Pitkanen.

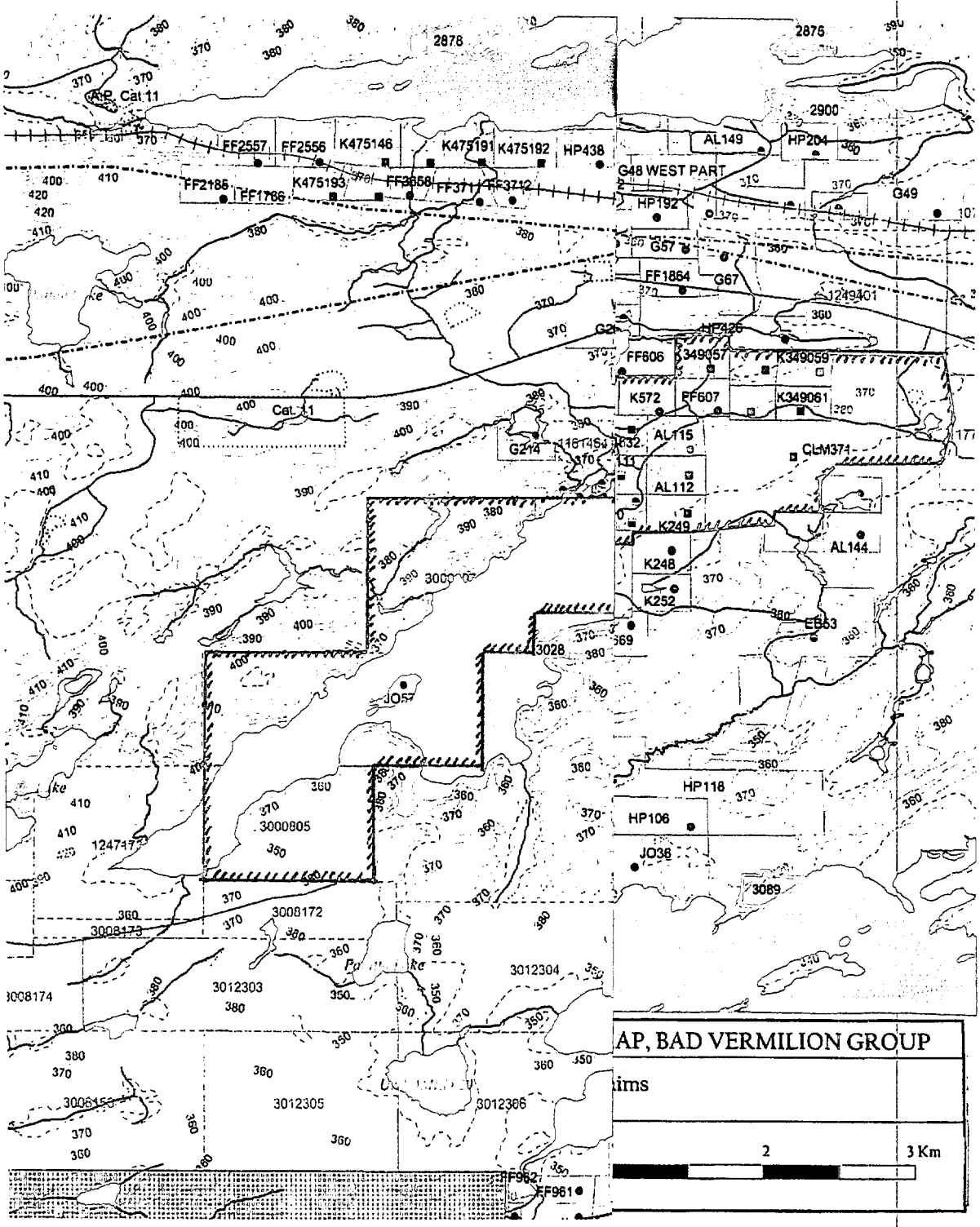
1975: Hanna Mining Company held large part of the present Hexagon Cousineau Group property, as well as patented claims K301, K304 and 683P. Their work included line cutting, EM, magnetic and geological surveys. Three diamond drill holes were completed totaling 502.62 metres. Two of the holes were drilled on a claim currently held by Hexagon (K-1249425) in the northeast part of the property and one hole was drilled in the southwest portion of patented claim K683. The best intersection in these holes was 0.8% Zn over 0.76 metres.

1979: The Ontario Geological Survey contracted with Questor Surveys Ltd. to fly an INPUT airborne survey over a large block of land in the Atikokan-Mine Centre area. The data was released in 1980. The airborne survey covered parts of the Hexagon property.

1985: Lynx Canada Exploration Ltd. carried out geological mapping, prospecting, mag and EM surveys, and basal till sampling on the Alice "A" and surrounding claims. Their results were inconclusive.

1988: Fire River Gold Corp. carried out geological mapping, a ground EM survey, and rock and humus sampling on an 18-claim group surrounding the Alice "A" claims.

1988-89: G. Armstrong, of Fort Frances drilled three holes totaling 340.16 metres, on what is now Hexagon claim 1024618. The best intersection reported was 1.18% Zn, 0.13% Pb and 0.07% Cu over 2.26 metres.


AP, BAD VERMILION GROUP
ims
2
3 Km

leased and patented mining claims are held in the name of Hexagon, and are subject to a 2% NSR payable to Golden Star Mine Centre Exploration Ltd.

The Bolen/McCormick claims consist of 84 un-patented mining claim units (Mining Rights only), totalling approximately 3,360 acres. These claims are owned 100% by Hexagon, and are not subject to any royalties or other payments. The perimeter of the claim group is currently being surveyed, and lease status is pending.

Also included in the properties are an additional 126 un-patented mining claim units (5,040 acres) recently staked by Hexagon. They are owned 100% by Hexagon and are not subject to any royalties or other payments.

### 6.4.2 Cousineau Group

The Cousineau group (Map 2) consists of 51 un-patented mining claims (146 units), totalling approximately 5,840 acres. All are held by Hexagon under an option with Louis Cousineau. This option agreement requires option payments of:

1. $25,000 on or before March 1, 2004;
2. $25,000 on or before October 15, 2004;
3. $25,000 on or before October 15, 2005;
4. $25,000 on or before October 15, 2006.

The agreement also requires payment of a 2.5% NSR.

### 6.4.3 East Block Group

This is a block of 8 nearly contiguous, un-patented mining claims (86 units) (Map 3), totalling approximately 3,440 acres. These claims are owned 100% by Hexagon, and are not subject to any royalties or other payments.

## 6.5 Claim Surveys

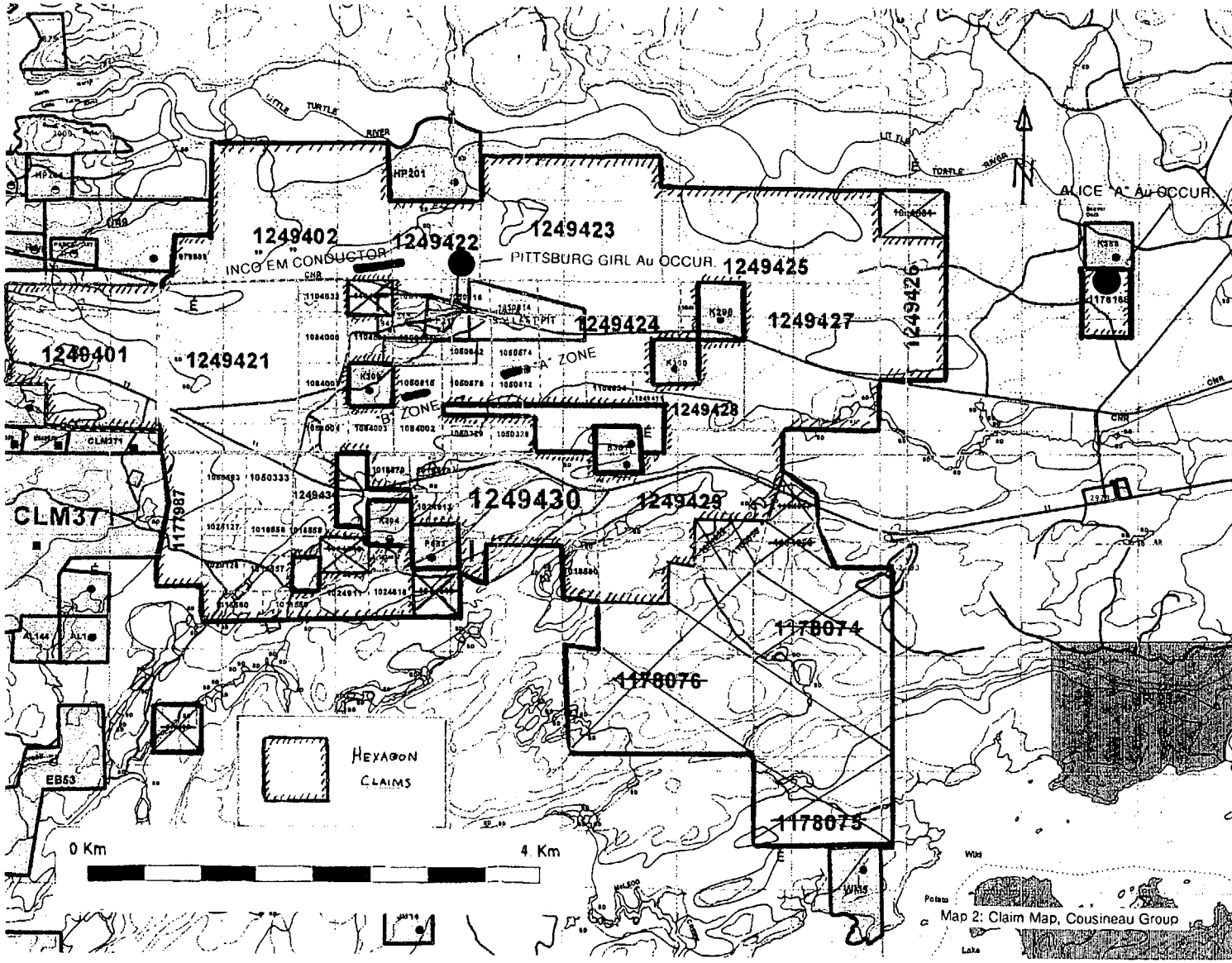
Only the patented and leased claims noted above have been legally surveyed, as required by the Mining Act. A perimeter survey of the Bolen/McCormick claims is in progress, and a lease is pending.

## 6.6 Location of Mineralized Zones and Mine Workings

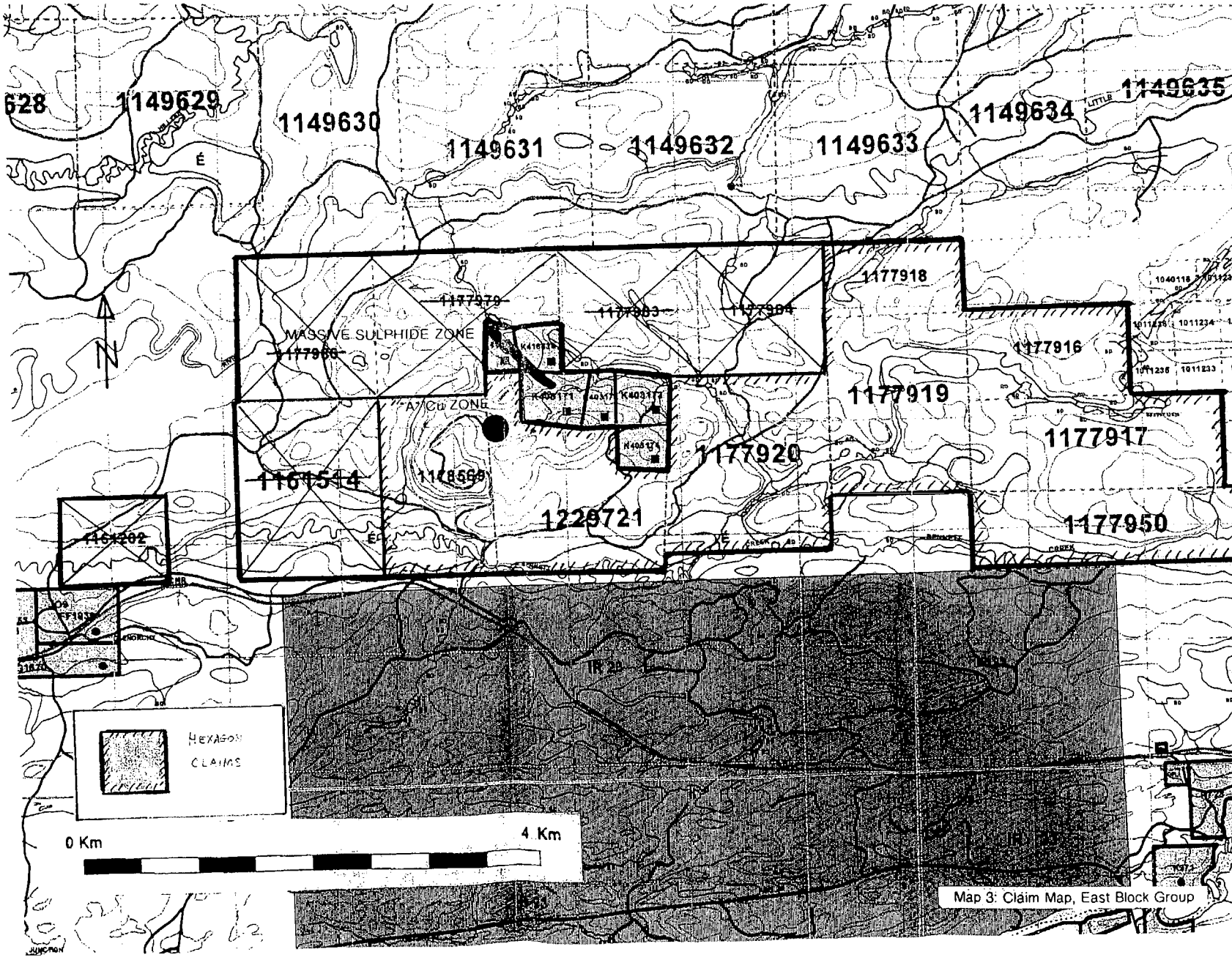
Because of the exceptionally large number of mineralized showings, old shafts, trenches, and other mine workings, the terms of reference of this report did not include compiling, describing and plotting all such locations. Only the more significant deposits are shown on Maps 1, 2 and 3. One of the first tasks of the proposed work program would be to prepare such a compilation and map.

## 6.7 Royalty and Other Payment Requirements

These requirements have been addressed in section 6.4, above.




Map 2: Claim Map, Cousineau Group




Map 3: Claim Map, East Block Group

## 6.8 Environmental Liabilities

There are a large number of shafts, trenches and other mine workings and features on the property that are (in the case of patented and leased claims) or will be (once the unpatented claims are brought to lease) potential liabilities. Some of these potential liabilities on the Foley, Golden Star, Golden Crescent, Isabella, Ferguson-Daisy, Decca, JO 41, Pacitto, and Alice A have been documented by studies commissioned by the Ontario Ministry of Northern Development and Mines (DST 1999). A detailed survey of these potential liabilities should be undertaken by Hexagon as the various options are exercised and un-patented mining claims are brought to lease, and any required remedial actions undertaken at that time.

## 6.9 Permitting Requirements

Permits will be required from the Ministry of Northern Development and Mines for any Advanced Exploration carried out, i.e. large scale stripping and trenching, bulk sampling and shaft dewatering and reconstruction. A Notice of Advanced Exploration must be given for such work. Also required will be a Closure Plan describing the work to be done and the reclamation work required upon completion of work (including financial assurances). Public consultation will be required, probably including nearby First Nation communities. If bulk samples of over 1,000 tonnes are to be extracted from any of the un-patented mining claims, "Permission to Remove Bulk Samples" must be obtained from the Ministry.

Permits will also be required from the Ministry of the Environment for any shaft dewatering. It will likely be necessary to construct a permitted settling pond to contain the mine water as it is pumped.

If any road construction or water crossings are required to move heavy equipment, Work Permits will be required from the Ministry of Natural Resources. Some public consultation will likely be required for this work as well.

Notice must be given to the Ministry of Labour for most of the proposed work, especially any work underground.

If a campsite is constructed on the site, additional permits and approvals will also be required.

1989: Goldfields Canadian Mining Limited carried out airborne magnetometer and VLF surveys over most of Hexagon's Cousineau Group of claims. They also stripped and channel sampled a gold showing in the north part of the property, thought to be the Pittsburgh Girl. (Inco, 1990-1993)

1990: Nipigon Gold Resources Ltd. carried out an airborne EM & mag survey on Hexagon claim 1249423.

1996: Nuinsco Resources reportedly did some drilling in the area, but this could not be confirmed from the assessment files.

1990-1993: Inco Limited optioned the property in 1990 and carried out the following extensive exploration program, which was reported on in a series of Company reports:

> In 1990, an airborne magnetometer and INPUT electromagnetic survey, totaling approximately 370 line km., was flown by Questor Surveys Ltd. This survey appears to have covered the entire Cousineau Group. A grid (24.2 line km base lines and 204 line km grid lines) was cut and an IP survey carried out over approximately 15 line kilometres. Some sampling was done during the property examination.
>
> In 1991,the above-mentioned grid was mapped and the gold showings stripped, trenched and mapped in detail. Some soil sampling was carried out over the gold zones with negative results. Detailed lithogeochemical studies were carried out which defined several felsic volcanic horizons believed to have potential for massive sulphide mineralization. Magnetometer and EM-37 electromagnetic surveys were carried out over the favourable felsic volcanic horizons.
>
> In 1992, magnetometer, EM-37 and borehole EM surveys were completed. Some additional geological mapping and sampling was also carried out. Two boreholes totaling 727 metres were drilled to test geophysical anomalies. One of these holes, which appear to lie on Hexagon claim 1249430, intersected 0.75 metres of 1.42 Zn in rhyolites and tuffs.
>
> In 1993, IP, HLEM and borehole EM surveys were carried out. Three boreholes totaling 1,127.70 metres were drilled to test geophysical and lithogeochemical anomalies. One hole, located on Hexagon claim 1050815, intersected a weakly mineralized chert/altered rhyolite horizon that returned 0.21% Cu and 0.73% Zn over 0.73 metres.

The option was terminated in Nov. 1993.

### 8.2.3 East Block Claim Group

Hexagon's East Block Group of claims has been explored largely for base metals. Much of the earlier work was concentrated in two areas, both on third party claims adjacent to the Hexagon property; a group of leased claims encompassing part of the Polygon Pond massive sulphide showing, and a group of patented and un-patented mining claims immediately east and north of Hexagon's eastern claim boundary. Hexagon now holds approximately 8 kilometres of favourable geology connecting these historical showings, and extending to the west of them.

The following summarizes the previous exploration work carried out on or adjacent to Hexagon claims. It should be noted that the Massive Sulphide Zone deposit, described above, is not included in the Hexagon property. Unless otherwise noted, the following work was carried out on adjacent third party claims. The data and information referred to is public information, available in the Assessment Files Kenora. NWMDS has not been able to verify this information from other sources, and **the information is not necessarily indicative of the mineralization on the property that is the subject of this report.**

1958: Noranda Exploration Company Ltd. drilled 11 drill holes to check EM anomalies associated with the Massive Sulphide Zone. While chalcopyrite was reported in the drill core, the best assays were 0.28 % Cu and 0.03 oz/ton Au.

1966: Noranda Exploration Company Ltd. did additional follow-up work in the vicinity of the above drilling. It consisted of a ground EM survey and geological mapping. Most of this work was also done on adjacent, third party claims not held by Hexagon

1980: The Ontario government released the results of an airborne INPUT EM and magnetic survey that covers most of the claim group.

1982: E.A.Pearson did trenching and drilled one drill hole to test the Massive Sulphide Zone. Assays are not available. This work was also done on adjacent, third party claims.

1984: Angor Exploration Ltd. carried out geological mapping and an airborne EM survey largely on adjacent, third party claims to the east of the eastern boundary of the Hexagon claims. Some of the work was done on current Hexagon claims 1177916 and 1177917.

1983-84: Coloma Resources Ltd. carried out ground EM and mag surveys and drilled seven holes on parts of Hexagon claims 1177920 and 1177919. The best assay obtained was 0.019 oz/ton over 20 inches.

1988: George Armstrong reportedly drilled several drill holes, in the area, but this could not be confirmed.

1992-1998: Louis Cousineau prospected the area.

2000: Mustang Minerals Corp. carried out reconnaissance geological mapping and prospecting on the Polygon Pond base metal property, located adjacent to former Hexagon claims 1177569 and 1229721.

### 8.3 Historical Mineral Resource and Mineral Reserve Estimates

Because of the age and quality of most of the original data reviewed, it could not be determined if any of the historical mineral resource and mineral reserve estimates mentioned in the literature were done in accordance with sections 1.3 and 1.4 of National Instrument 43-101. It seems unlikely that they were. Despite their limitation, the following comments from the available literature seem relevant.

On the Foley Mine claims, a preliminary report by Sherritt Gordon Mines Ltd. in 1982 refers to an earlier, undocumented report that provide the following "estimated amount of ore developed above the crosscuts and drifts (in the Foley Mine):

15,000 tons in North shaft @ 0.58 oz/ton.
15,000 tons in #5 shaft @ 0.58 oz/ton.
25,000 tons in other shafts @ 0.48 oz/ton.
50,000 tons in Jumbo vein @ 0.24 oz/ton.
2,000 tons in Lucky Joe vein @ 0.096 oz/ton.

For a total of 107,000 tons @ 0.388 oz/ton." It is uncertain whether any of this material was removed in later clean-up operations.

The Sherritt report also refers to a 1942 figure of 20,000 tons @ 0.42 oz/ton, but no reference is given (Sherritt Gordon Mines, 1982).

Also, in 1981, The Ontario Geological Survey released a report on the feasibility of small-scale gold mining in northwestern Ontario (Neilson and Bray, 1981). The authors of this report attempted to research all pertinent data available on gold deposits documented in the assessment files as well as other published literature and company reports and, from this data, provided some rough estimates of tonnage and grade in the Mine Centre area and on specific properties.

On the Foley Mine, the above report suggests an estimated tonnage and grade of material, in the possible category, of 40,000 tons at a grade of 0.50 oz/ton. At the Golden Star Mine, they suggest 200,000 tons at 0.42 oz/ton, and on the Ferguson prospect, they estimate approximately 40,000 tons at 0.38 oz/ton, both also in the possible category. These estimates were obtained from old company reports, or calculated from old mine plans, sections and other data found in the

public record. Because of the questionable quality of most of these old records, the figures provided by Neilson and Bray cannot be construed to be "mineral resources" or "mineral reserves" as defined in National Instrument 43-101.

### 8.4 Historical Production

Although gold was produced from a large number of large and small gold-bearing veins on the Hexagon property over the years, the only two that reported significant production was the Golden Star Mine and the Foley Mine. Total recorded production of gold historically mined from these two mines, in the two periods 1893-1901 and 1933-1941, as compiled from the assessment files, was slightly in excess of 16 thousand ounces (Table 1).

| Mine | Production Years | Ounces Gold |
|---|---|---|
| Golden Star (1)* | 1898 - 1901: | 10,632 |
| | 1934, 1938 and 1941: | 126 |
| | Total: | 10,758 |
| Foley (2) | 1893 - 1900: | 4,412 |
| | 1933 - 1934: | 855 |
| | Total: | 5,267 |
| | GRAND TOTAL: | **16,025** |

* Numbers in parentheses in table and in text refer to circled numbers within property outlines, Figure 6.

**Table 1. Production of gold in ounces from the Golden Star and Foley mines**

Lesser amounts of gold (each <1,000 and >100 ounces) have been taken from the Pacitto Prospect (6)*, Isabella Mine (7), Ferguson Mine (8), Golden Crescent Mine (9), Russell C. Cone Mine (10), Cone Prospect (11), Stagee Prospect (12), McKenzie Gray Prospect (45), Lucky Coon Mine (47), Manhattan and Decca Mines (48) and from (<100 ounces) the Gibson Occurrence (61).

On the Cousineau Group, the only documented ore production was the mining and milling of 200 tons of gold ore from the Alice A mine, located on Hexagon claim 1178166. This production took place before the turn of the century.

No production has been reported on the East Block Group.

## 9. GEOLOGICAL SETTING

The Hexagon property lies within the Archean (2.6 to 2.9 billion year old) Superior Province, straddling the east-trending boundary between two major subprovinces, the Wabigoon Subprovince to the north and the Quetico Subprovince to the south (Figure 4). The Wabigoon (Blackburn et al 1991) is

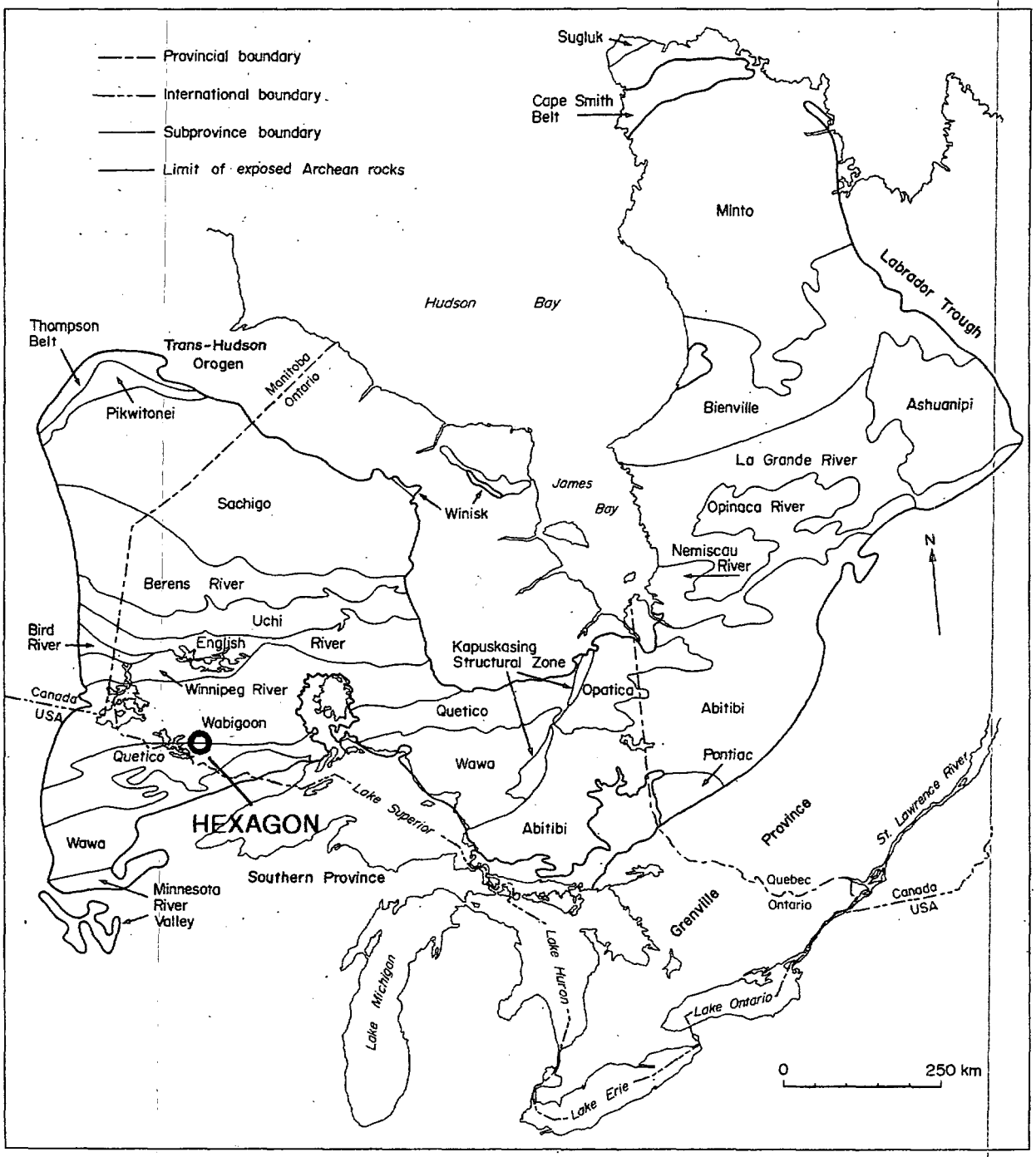



Figure 4: Subdivision of the Superior Province into subprovinces (from Thurston 1991: Fig. 4.2)

considered to be a granite-greenstone subprovince, while the Quetico (Williams 1991) is a sedimentary-gneissic subprovince. Subprovincial boundaries are major structural discontinuities, commonly superimposed on profound changes in lithology. In the Fort Frances - Mine Centre area (Figure 5); Poulsen 2000), the boundary is a wedge-shaped zone, the margins of which are the Quetico fault to the north and the Seine River fault to the south. Geology within this wedge is transitional, retaining characteristics of both the Wabigoon (e.g. volcanic and granitic rocks) and the Quetico (e.g. sedimentary rocks) subprovinces.

Subprovincial boundaries are interpreted to reflect deep-seated structures, thus providing channel ways for metal bearing systems from deep crustal levels. East of Thunder Bay, the Barton Bay deformation zone lies along the same subprovincial boundary and is the host to the past-producing McLeod Cockshut Mine.

The wedge shaped zone has long been known to be rich in various mineral commodities, ranging from precious metals to magmatic Cu-Ni and Fe-Ti deposits, to volcanogenic Cu-Zn (Poulsen 1984). For these reasons it has been the subject of research over many years by Howard Poulsen, formerly of the Ontario Geological Survey and the Geological Survey of Canada, who has recently (Poulsen 2000) presented a comprehensive metallogenic model for the entire Mine Centre - Fort Frances area.

In the more immediate Mine Centre area (Figure 5), Wabigoon Subprovince rocks north of the Quetico fault consist of both supracrustal, dominantly mafic to felsic volcanic rocks, gneissic and migmatitic equivalents of these supracrustals, and granitic to intrusive rocks (Stone et al 1997a, b). The supracrustal rocks are greenstone belt rocks and their remnants, that all lie marginal to the Irene-Eltrut lakes batholithic complex. The latter complex is comprised of both granitic (tonalites and granodiorites) intrusive rocks and gneissic and migmatitic derivatives of the supracrustal sequence. A number of mafic to ultramafic intrusions, including anorthosites, lie both within the greenstone belts, and as discrete bodies in the batholithic complex (e.g. Holmes Lake stock). Copper, nickel, cobalt, and platinum group metals have been found in association with these latter bodies.

Quetico Subprovince rocks south of the Seine River fault (Figure 5) consist almost entirely of clastic sedimentary rocks (siltstones, sandstones, conglomerates) and their metamorphic equivalents. Grade of metamorphism increases from north to south, giving rise to gneisses and migmatites. In places, these higher-grade rocks have been intruded by granitic stocks and batholiths (Williams 1991). Small gabbroic stocks host copper, nickel and platinum group metals.

The transitional zone between the Quetico and Seine River faults (Figure 5) is composed (Poulsen 2000) of supracrustal mafic to felsic volcanic rocks (Keewatin volcanics), clastic sedimentary rocks (Seine sediments), mafic to ultramafic intrusions (Seine Bay - Bad Vermilion anorthosite; Grassy Portage sill), granitic intrusions (Bad Vermilion tonalite/trondhjemite; Mudge Lake trondhjemite; Ottertail stock; Rice Bay granite gneiss dome), and a number of subvolcanic intrusions that range from felsic to mafic. The Seine River and Quetico faults diverge at an approximate 20° angle from a point near Calm Lake, about 25 km east of Mine Centre (Figure 5). Despite many years of geologic investigation, considerable controversy remains in regard to the relationships between lithologic units contained within the wedge, largely because of the structural complexity engendered by the movement history along these two faults. Movement along the Seine River and Quetico faults has been dominantly right lateral, resulting in a dextral zone of wrenching between them (Poulsen 2000). What is known is that the clastic sedimentary sequence (Seine sediments) postdates both the Keewatin volcanics and the Bad Vermilion tonalite/trondhjemite intrusion, since the Seine sediments lie unconformably on top of the latter. The relationship between the Seine Bay - Bad Vermilion Lake anorthositic intrusion and the Bad Vermilion tonalite/trondhemite intrusion is not as clear. Wood et al (1980a, b) interpret the tonalite/trondhjemite to have intruded along the contact between the anorthosite and the supracrustal volcanic rocks. A fault, the Finger Lake fault, has been suggested to lie along the contact. However, it appears to be more in the style of a deformation zone (see Section 8.2.2.4), potentially more favourable for mineral deposit localization.

In addition to folding of the volcanic and sedimentary sequences, the right lateral movement along the bounding faults has produced subsidiary fractures and faults (Poulsen 2000). Internal faults have a sygmoidal form, and Poulsen (2000) has interpreted a number of them to mark boundaries between stratigraphically coherent domains. Although Poulsen (2000) has not interpreted such a fault (Finger Lake fault) to lie along the contact between the Seine Bay - Bad Vermilion anorthosite and the Bad Vermilion tonalite/trondhjemite, there is a very good possibility that this zone is of structural importance in the mineralizing process. Fractures at a high angle to the internal faults are especially well developed in the mechanically more competent granitic intrusions, and in particular in the Bad Vermilion trondhjemite/tonalite. These have been called second-order ductile shears by Poulsen (2000), who interprets them to be conjugate sets associated with the right lateral movement on the Quetico and Seine River faults. They are of critical importance in that they host most of the gold-bearing quartz veins in the Bad Vermilion tonalite.

### 9.1 Bad Vermilion Group

The majority of the gold deposits that occur on the Bad Vermilion Group (Figure 6) are hosted within the Bad Vermilion tonalite/trondhjemite.

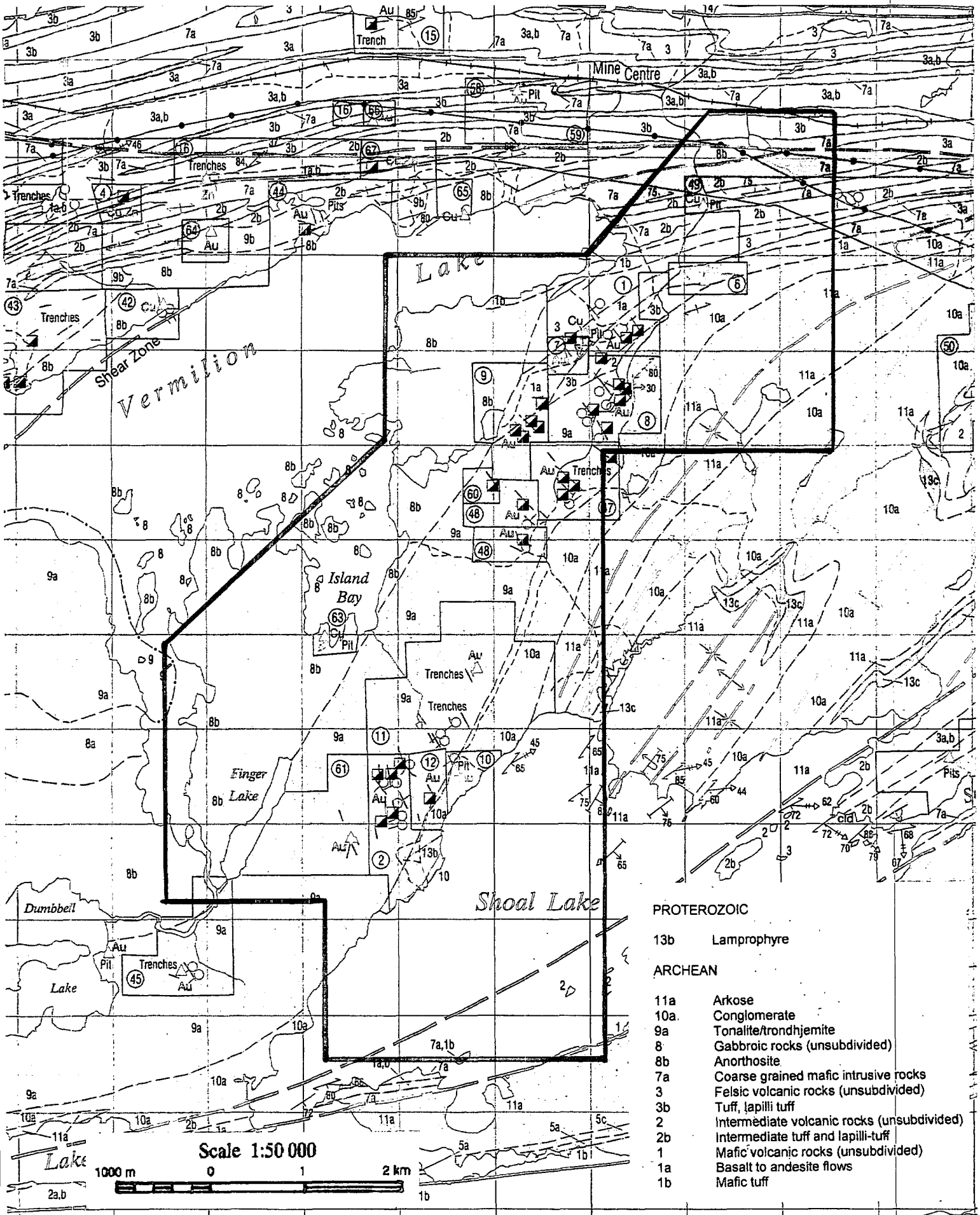



Figure 6: Geology of the Bad Vermilion Group claims (from OGS Map 2525)

The Bad Vermilion tonalite/trondhjemite is an elongate, sygmoid-shaped body oriented north-northeasterly in its central part, but deflected to the northeast at its northerly end and to the southwest at its southerly end. It is about 12 km long by 1.5 km at its widest point, in the vicinity of the Foley Mine, and tapers at each end. There is little compositional variation within the intrusion, which has been variously called a trondhjemite or a tonalite (compositionally equivalent terms): it is dominantly equigranular, plagioclase is the dominant feldspar, with subordinate potash feldspar, and quartz is commonly in the form of "eyes".

The tonalite/trondjemite intrusion is in contact to the west with the Seine Bay - Bad Vermilion anorthosite: however, contact relationships are unclear, and the relative ages of the two bodies are uncertain. Evidence that the contact has been the locus of deformation along most if not all of its length is seen at a number of places. At its south end, on the property of Nipigon Gold Resouces Ltd., a wide zone of north-northeast trending shearing is seen at the MacKenzie-Gray vein, and was observed by C.E. Blackburn to increase in intensity toward the Jolly Rodger vein, located within the tonalite/trondhjemite along the contact. At its north end, in the vicinity of Island Bay, a drill hole put down for Ansil Resources Ltd. in 1992 at 50% dip toward the west intersected the steeply dipping contact: J.A. Bolen logged a sequence of interlayered trondhjemite and anorthosite over a 300 ft. core length, culminating in a hematitic, friable fault zone. Based on the above, the Finger Bay structure may be better termed a deformation zone than a fault.

To the east, the contact with the Seine sediments is one of unconformity: basal members of the sedimentary sequence have been observed near the Manhattan mine (Poulsen 2000, fig. 9d) lying both on the shallowly dipping paleo-surface of the tonalite/trondhjemite, and on the volcanic sequence into which it is emplaced.

At its northeast end, the portion of the claim group that comprises the Golden Star Mine claims includes mafic to felsic volcanic rocks, and overlying Seine sediments. If projected to the northeast, the Finger Lake deformation zone would pass through these supracrustal rocks.

### 9.2 Cousineau Group

The Cousineau claim group (Figure 7) straddles Highway 11, and encompasses volcanic rocks to the north of the highway compared with predominantly sedimentary rocks of the Seine sediments to the south. Grade of metamorphism is greenschist facies. The northern boundary of the claim group more or less coincides with the regionally important Quetico fault. The volcanic rocks are predominantly felsic, and according to Wood et al (1980a, b), mostly flow rocks that are commonly quartz-porphyritic and exhibit flow banding and spherulitic textures, with subordinate pyroclastic rocks such as lapilli-tuffs.

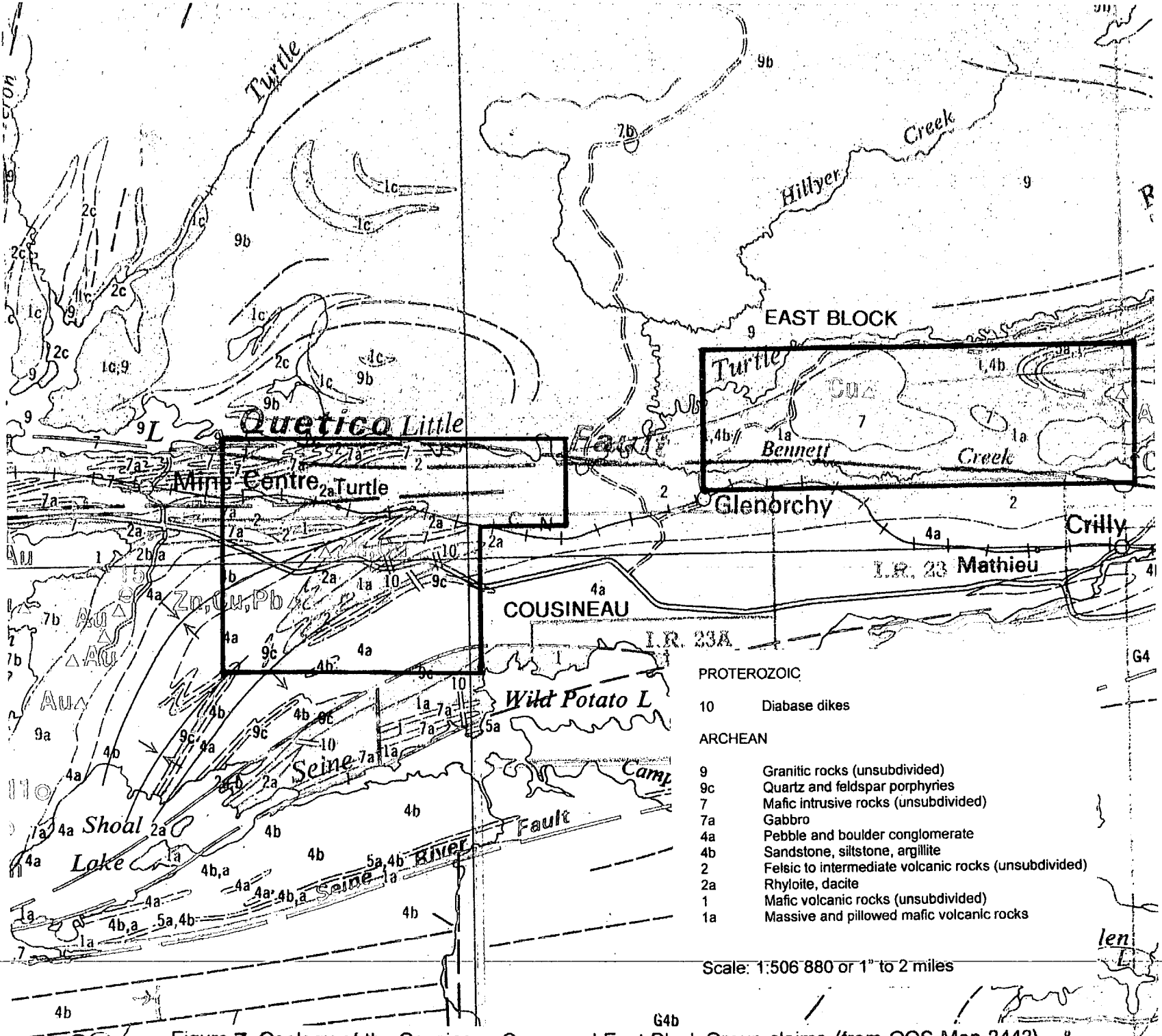



Figure 7. Geology of the Cousineau Group and East Block Group claims (from OGS Map 2443)

The Seine sedimentary sequence lies unconformably above the volcanic rocks (Poulsen 2000), though the surface of unconformity has in general been subjected to later shear deformation that obscures the contact relationship. The sedimentary rocks have also been folded along with the underlying volcanic sequence, as indicated by the southwest-trending fold axes shown in Figure 7. The Seine sediments are a mixed sequence of clast-supported conglomerates and predominantly arkosic sandstones that have been interpreted to be of shallow water origin, the environment interpreted to be alluvial fan merging into braded fluvial deposits (Poulsen 2000).

A north-northwest trending diabase dike of Proterozoic age crosscuts both the folded Archean rocks and the Quetico fault zone. A few satellitic smaller dikes have been identified close to the main dike. They are part of similar-trending swarm of dikes in northwest Ontario.

### 9.3 East Block Group

The East Block Group of claims (Figure 7) lies predominantly to the north of the regionally important Quetico fault, and therefore within the Wabigoon subprovince. The group encompasses the tapering termination of the Atikokan greenstone belt, which widens considerably in Bennett Township immediately to the east. The greenstone belt in this area lies marginal to the Irene-Eltrut lakes batholithic complex, a very small portion of which occurs in the extreme northwest corner of the group. The greenstone belt rocks are (Shanks and Schwerdtfeger 1994) highly metamorphosed sedimentary rocks, now schists and gneisses, and amphibolitic mafic volcanic rocks, distributed as two units, the former in the north and the latter in the south (Figure 8 does not distinguish between these units, having been compiled prior to the more recent mapping in this area). Within the middle of the group lies the metagabbroic Bennett Creek stock. In the more recent mapping (Shanks and Schwerdtfeger 1994), much of this stock has been re-interpreted to be of metavolcanic rather than intrusive origin.

Minor units of sedimentary magnetite iron formation occur within the sedimentary schists and gneisses at the east edge of the claim group.

## 10. DEPOSIT TYPES

### 10.1 Bad Vermilion Group

#### 10.1.1 Gold Deposits

On the Bad Vermilion Group, gold–bearing quartz vein deposits are the mineral deposit types of primary interest.

Free gold occurs primarily within quartz veins emplaced in northwest to north-northwest trending ductile shear zones within a large intrusive of tonalite/trondhjemite. This large intrusing underlies most of the landmass

between Bad Vermilion Lake and Shoal Lake (Poulsen 2000). Some gold also occurs in veins with the same trend, within volcanic rocks outside of the trondhjemite body.

The orientation of the veins swings from predominantly north to north-northwesterly at the southwest end to predominantly northwesterly at the north end. Veins vary in width from a few centimetres to meters. They are characteristically laminated, and have been interpreted to have developed by a crack-and-seal process in which successive pulses of silica-rich solutions entered fractures as they opened during the ductile shearing episode. In places, veins splay from each other at shallow angles (e.g. Foley Mine), or form an anastamosing system of diverging and converging veins or veinlets on various scales. Other curvilinear veinlets commonly splay off the principal veins (e.g. Manhattan Mine), and have been called third order veins by Poulsen (2000).

In excess of 100 gold-bearing quartz veins are known on the Bad Vermilion Group The more significant of these are shown on an older geological map (Tanton 1936), a portion of which is reproduced here as Figure 8.

### 10.1.2 Base Metal Deposits

Although clusters of coarse grained base metal sulphides occur in many of the gold bearing quartz veins on the Bad Vermilion Group, they are of interest only as a potential by-product of gold milling.

While some copper occurrences have been noted in the Bad Vermilion anorthosite intrusion on the west side of the Group, and in adjacent volcanic rocks on the Golden Star property, little can be said about the deposit type anticipated. There are, however, several untested electromagnetic conductors on the Group that should be investigated.

## 10.2 COUSINEAU GROUP

### 10.2.1 Base Metal Deposits

The deposits types of primary interest on the Cousineau Group are volcanogenic massive sulphide deposits.

Detailed mapping by Inco (1993) indicates that the rocks underlying the claims include layered sequences of mafic, intermediate and felsic volcanic rocks with some chemical sediments, that contain both sulphide and oxide iron formations facies. Many of the felsic volcanic rocks exhibit extensive alteration and deformation. Sodium depletion, sericitization and local chlorite alteration is reported in one wide zone on the western block. Sulphide mineralization, sometimes containing small amounts of copper and zinc, is common in many of the felsic horizons.

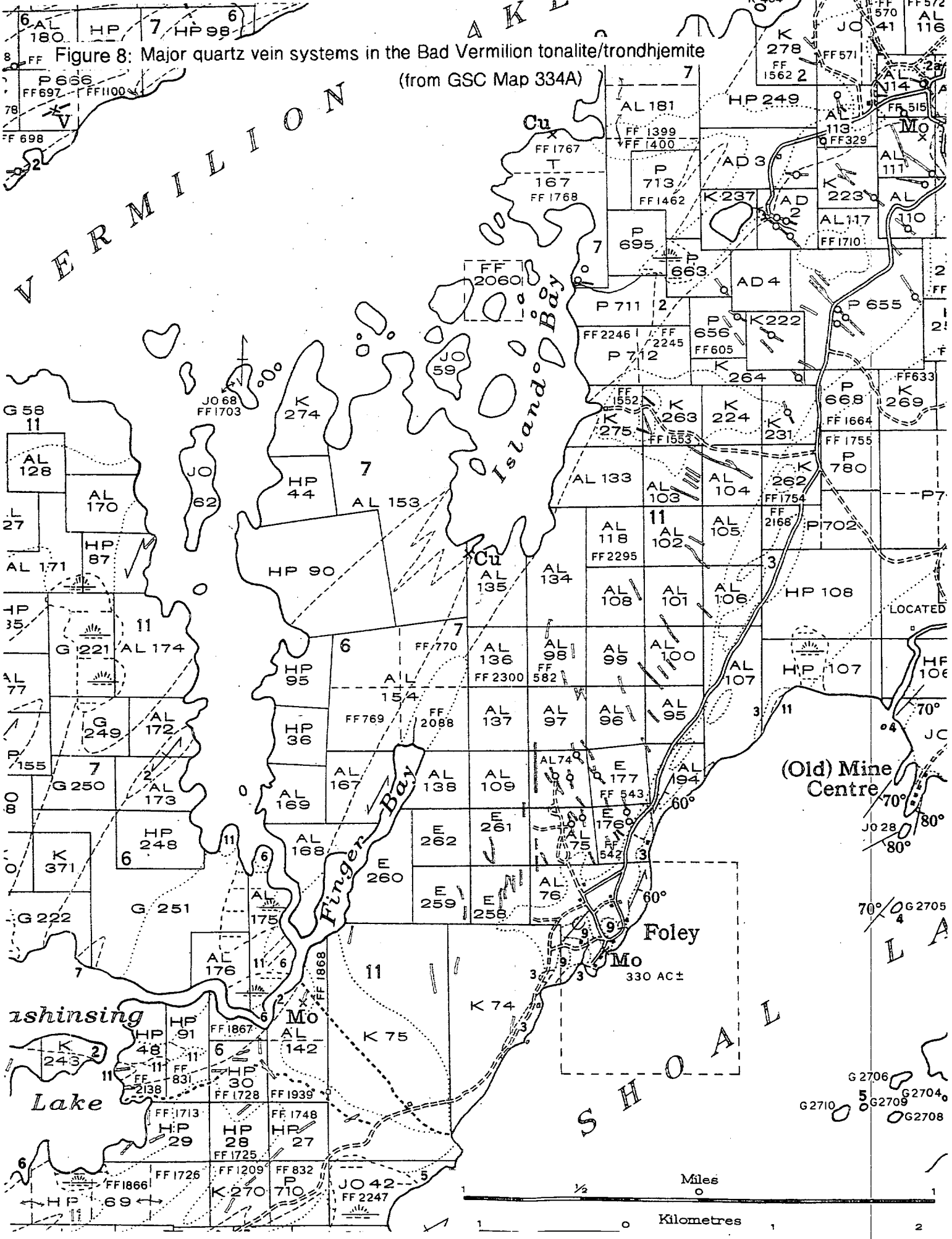



Figure 8: Major quartz vein systems in the Bad Vermilion tonalite/trondhjemite (from GSC Map 334A)

The above features suggest that these rocks have excellent potential to host typical Archean-type volcanogenic massive sulphide deposits. The presence of scattered zinc and copper occurrences throughout the area, and a number of interesting EM anomalies, support this conclusion.

### 10.2.2 Gold Deposits

Gold deposits are also of interest on the Cousineau Group.

Most of the documented gold occurrences in this area appear to be related to deformation (or shear) zones. These deformation zones, in addition to shearing, typically show strong alteration consisting of chlorite, iron carbonate and silicification. The gold is usually found associated with silicification/quartz. Pyrite is usually present, chalcopyrite occasionally.

### 10.3 East Block Group

The deposit types of interest on the East Block Group claims are base metal deposits associated with mafic rather than felsic volcanics. On, or adjacent to claims held by Hexagon, two base metal deposits have been investigated: a) two massive sulphide horizons within a sequence of largely mafic volcanics, and b) a mineralized zone within in an anorthosite sill. Copper mineralization is associated with both types. Details on these two deposits are provided in section 8.2.4 and 11.3.

## 11. MINERALIZATION

### 11.1 Bad Vermilion Group

### 11.1.1 Gold Mineralization

On the Bad Vermilion Group, gold largely occurs as coarse free gold in white quartz veins. Some veins also contain varying amounts of sulphide and other minerals including tellurides, sphalerite, chalcopyrite, pyrite, molybdenite and galena.

Sampling and assaying of veins over the years indicates that gold concentrations within some of the veins of the Bad Vermilion Group can average between 0.35 and 0.85 oz/ton gold, with some even higher-grade zones. This is demonstrated by many assay intersections from underground and surface sampling and limited diamond drilling carried out in the early days (AFK).

More recent work that demonstrates this was an exploration program carried out by Sherritt Gordon Mines Ltd. in 1981-1983. Approximately 3,400 linear feet of veins on the Foley, Ferguson and McKenzie-Gray claims were exposed by stripping and trenching, followed by systematic sampling. While detailed maps of the trenches, showing assay values, are available, no useful summary report of this surface sampling program is available. One Sherritt Gordon report does,

however, observe that "the average grades of the mineralized shoots range from 0.10 oz/ton to 0.84 oz/ton." This report also mentions an average grade of 0.80 oz/ton for one of the ore shoots on the Bonanza (Foley Mine) Vein (Sherritt Gordon Mines, 1983).

A trenching map of the Foley Mine property, prepared by Sherritt Gordon Mines in 1983, (shown as excerpts in Appendix C), shows the following average assays and widths for ore shoots on some of the veins:

| | |
|---|---|
| Bonanza Vein: | 0.84 oz/ton over 1.5 feet. |
| " | 0.84 oz/ton over 1.0 feet |
| V Vein: | 0.10 oz/ton over 3.3 feet |
| Jumbo Vein: | 0.18 oz/ton over 6.6 feet |
| Daisy Vein: | 0.38 oz/ton over 1.6 feet |
| Lucky Joe Vein: | 0.36 oz/ton over 1.2 feet |
| West Vein: | 0.37 oz/ton over 1.5 feet |

As noted in section 8.2.2.1, information from the period, 1922-1927 noted that, at the deeper levels of the mine, lamprophyres were encountered, significant gold values were found in the "schisted" wall rock as well as the veins, and that the veins appeared to be widening with depth. The implication seemed to be that the nature of the ore deposit was changing with depth. Although relevant to the current situation, few of these observations could be verified, and no verifiable assays could be found in the available government reports and technical literature of the day.

Since the main ore vein on the Golden Star property is poorly exposed at surface, there is little reliable evidence of the ore grade. However, Ennis notes from historical records that "from 119 samples taken by James A. Bow above the 5$^{th}$ level, the average grade was 0.92 ounces across 2.6 feet. At an average (mining) width of 4 feet the average grade would be 0.62 ounces per ton." (Ennis, 1979) (AFK) This could not be verified from other sources, but there is no evidence to suggest that it is not valid.

### 11.1.2 Base Metal Mineralization

As noted above, coarse, disseminated base metal mineralization is found associated with gold in many of the Bad Vermilion quartz veins. However the amounts are so low as to make them of interest only as a possible by-product of the gold extraction process.

Copper also occurs in the Bad Vermilion anorthosite intrusion west of the claim group, and in volcanic rocks on the Golden Star property. A copper occurrence at the south end of Island Bay lies within the Bad Vermilion anorthosite, and close to its eastern edge. Disseminated chalcopyrite occurs in N 10 degrees E trending fractures. Pye (1963) suggested "They may be related to a strong

sheared zone extending northeast under Island Bay, along or close to the contact between the anorthosite host rock and granite exposed to the east."

Poulsen (1984, p.44) reported that chalcopyrite and pyrrhotite stringers hosted by metavolcanic rocks are exposed in a pit 1000 ft. northwest of the No. 1 shaft (on the Golden Star vein). No estimates of the extent of the volcanic hosted mineralization are available. A small quantity of material (copper ore?) was reportedly shipped in 1916."

## 11.2 COUSINEAU GROUPS

### 11.2.1 Base Metal Mineralization

The layered sequence of mafic, intermediate and felsic volcanic rocks and chemical sediments that underlie parts of the Cousineau Group contain both sulphide and oxide iron formations facies. Sulphide mineralization, sometimes containing small amounts of copper and zinc, is common in many of the felsic horizons.

Inco (1992) held a large block of claims that overlapped most of the current Hexagon claims. In their reports, they describes some of the base metal showings on their former claim block as follows:

> "The zinc showings occur within a strongly sericitized intermediate to felsic quartz crystal tuff unit which has undergone intense sodium depletion. The best grab sample, from the D Zone, assayed 14.0% Zn.
>
> The copper showings involve quartz-carbonate veining parallel to the foliation of an intermediate to felsic quartz crystal tuff. The best grab sample assayed 2.8% Cu and 41 ppb Au".

Two holes were drilled on the Cousineau Group by Hanna Mining in 1975. The best intersection in these holes was 0.8% Zn over 0.76 metres. (AFK)

Work by Fire River Gold Corp. (1988) reports anomalous base metal values along strike from both the Gold Bug and the Emma Abbott gold occurrence, at the eastern end of the Cousineau Group. (AFK)

### 11.2.2 Gold Mineralization

Inco (1992) (AFK) describes two gold zones found on their former claims that cover most of the Cousineau Group, as follows:

> "The A Zone is a shear zone with mineralized quartz stringers crosscutting mafic amygdaloidal flows and intercalated mafic ash tuff. Grab samples assayed up to 63.9 g/t gold. The B Zone is located at the hinge of a minor Z fold. Primary quartz stringers hosted by a mafic tuff

unit, which is intercalated, with two distinct rhyolite units contain coarse-grained blebs of chalcopyrite and pyrite. A grab sample assayed 24.07 g/t Au and a 2.5 metre chip sample assayed 13.2 g/t Au. Channel sampling across both zones failed to reproduce these high gold values".

Also on the Cousineau Group are two other poorly documented gold occurrences: the Pittsburgh Girl in the north and the Fighting Chance in the south. Earlier prospecting and sampling on these occurrences reportedly gave high gold assays from grab samples from each of these showings (AFK).

At the east end of the Group are three historical gold showings on, and straddling Hexagon claim 1178166: the Alice A, the Gold Bug, and the Emma Abbott. Some mining took place on the Alice A before the turn of the century. Little is known of the history of the other two. Work by Fire River Gold Corp. (1988) suggests that these showings lie within a major structural feature, with related alteration and sulphide mineralization, which has a strike length of at least one mile. It also reported one ore grade gold assay from a grab sample taken from near the shaft.

### 11.3 East Block

Most of the more significant mineral occurrences found the East Block are base metal occurrences. Several of these are located on adjacent, third party claims.

Mustang Minerals Corp. (2000) (AFK) describes several mineralized (base metal) zones on their former claims in the East Block, as follows:

> "The Footwall Contact Zone lies along 1.7 km of the internal contact of the Bennett Lake (Creek) Stock, just west of Polygon Lake, and includes the "A" Copper Zone. The Footwall Contact hosts isolated, but significant, Pt-Pd-Au values lying on or immediately above the footwall contact of the stock. The "A" Copper Zone is an area of 0.5% to 7% disseminated and stringer copper mineralization assaying up to 2.09% hosted in an evolved anorthosite sill, and in underlying altered basalts. Contact mineralization contains 3-5% chalcopyrite. Specks of chalcopyrite and malachite staining were noted through the entire exposed anorthosite unit. Two chip channel samples taken from this zone returned 2427 ppm Cu and 52 ppb Au over 3.5m, and 9392 ppm Cu and 184 ppb Au across lm (including 2.09% Cu across 0.3m). North of Base Line 0+00 the internal contact corresponds with a weak VLF-EM conductor axis (Noranda Mines, previous work). The "A" Copper Zone should respond to induced polarization (IP) due to elevated sulfide content.
>
> The Massive Sulfide Zone (located on adjacent third party claims not held by Hexagon) strikes northwest for a distance of approximately 1.5 kilometres, and is situated immediately north of Polygon Lake. (It is)

hosted by mafic volcanic rocks. The Zone hosts two massive sulfide horizons in a VMS-type environment, with minor associated graphitic material. They are composed primarily of pyrite and pyrrhotite with lesser amounts of copper, palladium, gold and nickel. A chip channel sample taken from a cross-section of exposed mineralization and wall rock assayed 1965 ppm Cu over 8m, including 2376 ppm Cu across 6m of more strongly mineralized material.

The West Contact Zone lies along the external contact of the Bennett Creek Stock. It consists of a broad area of low Pd values (11 to 20 ppb).

The North Contact Zone is situated in the northeastern part of the map area, along the external (northern) contact of the Bennett Creek Stock. It consists of three anomalous gold values (212 ppb, 48 ppb and 32 ppb) associated with fine-grained amphibolitic basalt and coarse-grained gneissic gabbro with aplite injections. This area is worthy of additional prospecting as part of a follow-up program.

The South Contact Zone lies along the external contact of the Bennett Creek Stock inthe south central part of the map area, immediately north of Bennett Creek. Elevated copper, gold and palladium values are associated with the hanging wall of a weak airborne conductor along the interpreted south contact of the Bennett Lake Stock."

As noted in section 8.2.4, the Massive Sulphide Zone, described above, is not included in the Hexagon property. The data and information on this deposit was obtained from public information in the Assessment Files Kenora. NWMDS was not able to verify this information beyond what is contained in the assessment files, and **the information is not necessarily indicative of the mineralization on the property that is the subject of this report.**

## 12. EXPLORATION CARRIED OUT BY HEXAGON

Since acquiring the property in 1997, Hexagon has carried out the following exploration work.

In 1998, bulldozer stripping was done on eight of the veins on the Bad Vermilion Group that had yielded better gold assays (J. Bolen, personal communication).

In 1999, Hexagon drilled four holes in the vicinity of the Alice "A" shafts, on the Cousineau Group. Details and results of this work are described in Section 13 below.

Most of the work carried out on the Bad Vermilion Group was done in 2000. From the work done by Bolen and McCormick prior to acquisition by Hexagon,

the Nugget and the Baseline veins were selected for more detailed investigation. Rock trenching, percussion drilling, sampling and assaying were done on these veins, followed by metallurgical testing of material from the Nugget Vein (AFK). The Nugget Vein straddles the boundary between claims K875544 and K875547, and the Baseline Vein is located on claim K875548. Details of this rock trenching work are described in sections 14 below. Contractors employed in this work are as follows: Drilling: Aggassi Drilling, Stonewall, Manitoba: 5Backhoe: Hinke Lamppi, Fort Frances, Ontario.

A 70-kilogram sample of material from the Nugget Vein was sent to the Golden Giant Mine (Battle Mountain Gold) by Hexagon, for metallurgical testing. Results of this work are provided in Section 18 below.

In January, 2002, a 176 ton sample of Nugget Vein material was test milled at the Roxmark Mines Ltd. mill at Beardmore, Ontario. Results of this metallurgical test work are provided in Section 18 below.

## 13. DRILLING CARRIED OUT BY HEXAGON

The only drilling carried out by Hexagon was on the Cousineau Group in 1999. Hexagon drilled three holes in the vicinity of the Alice "A" shafts, and a fourth hole was drilled several kilometers to the east to test a showing discovered by the Cousineau brothers (AFK). All holes were drilled by NorthWest Geophysics Ltd. of Thunder Bay, Ontario, using a rig that drilled thin wall B core. The core was logged by J. Bolen. All core selected for assay was split with a diamond saw, and half the core sent to Swastika Laboratories, Swastika, Ontario, for standard fire assay for gold. The other half was retained in the boxes for future reference on the premises of J. Bolen. (AFK)

The holes at the Alice "A" showing were all drilled on an azimuth of 180°, at -50°, at 100 m spacing along the gold bearing horizon, for core lengths of 121.95, 103.66 and 131.10 m respectively. These holes undercut the two shafts and any historical workings. The second hole lay just outside and to the east of Hexagon's claim 1178166. The holes intersected an east-trending zone of silicified and brecciated rhyolite tuffs with numerous quartz veinlets and quartz ankerite breccia. Widths of the breccia zone were 4.96 m, 36 m and 12.72 m respectively. 1-2% pyrite and traces of sphalerite are typically present in the veins. Gold values ran trace to 800 ppb. (AFK)

At the Cousineau brothers' showing, the fourth hole was again drilled on an azimuth of 180°, at -50°, for a core length of 100.61 m, to undercut the showing on surface that reportedly ran 0.08 ounce Au/ton. Carbonate alteration of basaltic rocks characterize the showing. Silicification is reported in the log over most of the core length. Most assays returned trace amounts of gold only, the highest being 51 ppb. (AFK)

NWMDS was not involved with the property while any of this work was being carried out, and the data could be verified on the ground or beyond what was reported in the assessment files.

## 14. SAMPLING METHOD AND APPROACH

Based upon information provided by Hexagon, the following describes the sampling method and approach used.

a) Sampling was conducted on the Nugget and Baseline veins in March and April, 2000. The first phase consisted of percussion drilling for sampling purposes. 160 holes were drilled on the Nugget Vein and 153 holes drilled on the Baseline Vein, all to a depth of 12 feet.

   Veins are vertical to near vertical, and vary in width from 3 to 8 feet wide. Holes were drilled vertically on approximately 3-foot centres, spaced across the veins, and along the strike of each vein. The sampled portion of each vein is approximately 150 feet long.

   Drill hole cuttings (fines and rock chips) were collected on a plastic ground sheet. One sample was collected from each hole, weighing approximately 8 to 10 kg each.

   The drilling was carried out by Aggassi Drilling Co. of Stonewall, Manitoba.

b) The trondhjemite and quartz veins are very competent, and the sampler estimated that 99% or greater of the sample was collected. The only factor that may have affected the accuracy and reliability of the sampling is the extreme "nugget" characteristics of the mineralized material. It is possible that some coarse gold may have been smeared on the wall of the holes and was not recovered. It is impossible to tell if this did in fact happen.

c) Sample quantity and quality were good. The samples were split twice to give a sample of approximately 2,000 grams per sample. (see below) Other than the "nugget" effect mentioned above, there are no other factors that were likely to have affected the reliability of the results.

d) Only two rock types are present. Quartz veins are contained in massive, equigranular, coarse-grained trondhjemite. The veins typically have sharp contacts with the trondhjemite. The veins typically pinch and swell, and in the case of the Nugget Vein, numerous small veinlets digress from the main vein making the amount of contained quartz in the trondhjemite host variable near the contacts. The veins were stripped and washed in preparation for the drilling, and holes were located based upon

the surface geology, and to allow for a minimum 4 foot wide digging bucket.

e) On the Nugget Vein, assays ran from 0.01 to 16.46 g/tonne (unchecked assay only), with most in the 0.5 to 2.0 g/tonne range. On the Baseline Vein, assays ran from 0.02 to 9.53 g/tonne (unchecked assay only), with one highly anomalous value of 25.51 g/tonne (unchecked assay only). Most ran in the 0.2 to 0.5 g/tonne range. Percussion drill hole layouts with assays, and the assay certificates, for the Nugget and Baseline Veins are included in Appendix E.

## 15. SAMPLE PREPARATION, ANALYSES AND SECURITY

Based upon information provided by Hexagon, the following describes the sample preparation, analyses, and security used.

a) All samples were collected and prepared at the site by, or under the direct supervision of John A. Bolen, an officer of Hexagon, and currently a director of Solana. Two helpers were employed and paid for by Hexagon.

b) At the work site, each sample was collected on a plastic ground sheet and put through a splitter twice, yielding a final sample of approximately 2 kg per hole. The size of samples submitted to the lab was very consistent and no under sized samples were submitted. Samples were shipped to Swastika Lab in Swastika, Ontario.

At the Swastika Lab, samples were crushed to 1/16-inch size and split to provide 200 gram samples. Each 200 gram sample was pulverized to –100 mesh. Thirty grams (30g) of material below the screen was then assayed by fire assay.

Swastika Lab is a well-established lab, well respected in the mineral industry and certified to do umpire assays.

c) At the work site, samples were placed in clear plastic bags with sample numbers included. The sample numbers were also marked on the outside of each bag with an indelible marker. Sample bags were shipped via Grey Goose Bus Lines directly to Swastika Laboratories in Swastika, Ontario. This is a direct bus route, and samples would not normally have been unloaded at any point along the way.

Quality control and check assaying at the lab included re-assaying of one out of about every 10 samples, by taking a second cut of the material. In a number of cases these check assays varied greatly. It is believed that this was due to the "nugget" affect described above, i.e., gold particles

are flattened to such an extent that they do not pass through the 100 mesh screen and are discarded, and consequently are not included in the final assays.

Sixteen samples from the Nugget Vein were re-assayed using the pulp metallic method of assaying. They were selected to represent both high grade and low-grade material and were distributed throughout the drilling pattern. Samples were pulverized to –100 mesh and passed through a 100 mesh screen. A 30 gram sample was collected below the screen and fire assayed. The +100 mesh fraction which did not pass through the screen was weighed and fire assayed. Typically, the material in the +100 mesh fraction assayed many times higher than the –100 mesh fraction.

d) In the author's opinion, the sampling, sample preparation, and security measures applied were adequate for the purposes intended. The analytical procedures used are also considered adequate for the time the assaying was done. Now that the significance of the "nugget" affect is known, in the future, the pulp metallic method of assaying should be applied to samples from the properties.

## 16. DATA VERIFICATION

a) Quality control measures and data verification applied consisted of:
   - A through review of all available date by the author, comparing each reference against other available sources and resolving discrepancies.
   - The use of standard check assays, as described in Section 15.
   - Re-assaying of selected samples by the pulp metallic method, to determine the extent of the "nugget" effect.
   - Bulk sampling of the Nugget Vein to verify the results of the assaying of the drill hole cuttings.

b) The author visited the property shortly after the sampling program was completed, and can verify that the drilling and sampling of the Nugget and Baseline veins has been carried out as described. Assay results have been filed for assessment work with the Kenora Resident Geologist's Office, and were reviewed by the author.

c) The author was not present or involved with the property at the time the sampling and analytical work was carried out.

d) Samples taken to date, with a few exceptions, have not been re-assayed using the pulp metallic method due to the high cost of doing so. Additional bulk sampling has not been carried out for the same reason.

## 17. ADJACENT PROPERTIES

Several historical occurrences are described in this report that are located on claims not currently part of the Hexagon property. In each instance, the reports and maps used to describe these occurrences were public documents in the assessment files (AFK). NWMDS was not able to verify the information, and it has been clearly stated that **the information is not necessarily indicative of the mineralization on the Hexagon property that is the subject of this report**.

## 18. MINERAL PROCESSING AND METALLURGICAL TESTING

The 70-kilogram sample of material extracted from the Nugget Vein in July, 2000 was sent to the Golden Giant Mine (Battle Mountain Gold) by Hexagon, for metallurgical testing. No indication is given in the report as to how the sample was prepared by Hexagon. Head grades for various grind times (from 10 to 25 minutes) produced an overall average head grade of 8.99 g/t (0.263 oz/ton) Au. Leach recovery was studied for a number of different grinds, which indicated there is little difference in gold extraction with increasing grind: gold recoveries ranged from 97.3% to 98.5% (Barstad 2000: AFK).

In January, 2002 a 176-ton sample (from 183 wet tons) of Nugget Vein material was test milled at the Roxmark Mines Ltd. mill at Beardmore, Ontario. Again, no indication is given in the report of how the sample was prepared by Hexagon. Using Hexagon pulp metallic assay results, Roxmark calculated the average metallurgical grade of the feed to be 0.111 oz Au/ton, for a total of 19.506 ounces of gold available for extraction and recovery. Total amount of gold recovered from Roxmark's Hexagon Project was 14.079 ounces.

## 19. MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

Except for historical mineral resource and mineral reserve estimates, no mineral resource or mineral reserve estimates are being disclosed in this report.

## 20. OTHER RELEVANT DATA AND INFORMATION

No additional information is being disclosed.

## 21. INTERPRETATION AND CONCLUSIONS

### 21.1 BAD VERMILION GROUP

### 21.1.1 Gold

Given it's past production history, the presence of over 100 gold bearing veins on the property, and the many high assay intersections obtained from these veins over the years, the Bad Vermilion Group of claims holds out excellent potential for future gold exploration.

Sampling and assaying of the Bad Vermilion veins over the years indicates that gold concentrations within the veins can average between 0.35 and 0.85 oz/ton gold, with many even higher-grade zones. Veins are generally quite narrow, but can attain widths of up to several metres. Evidence seems to suggest that the gold is not evenly distributed in the veins, and the challenge is to locate higher-grade sections of sufficient size to be mineable.

There is little evidence to suggest that systematic surface exploration other than prospecting was carried out during the early period of production. While three of the properties were dewatered in the 1930s, work was reportedly restricted to individuals in clean-up operations.

Although several companies have carried out surface work on individual gold deposits in the Bad Vermilion area in recent years, they do not appear to have had access to all of the properties currently held by Hexagon. Hexagon's acquisition of the current large block of claims, which encompasses all the more significant gold properties in the area, together with the history of past gold production and other development work history on these properties, offers a unique opportunity to undertake a comprehensive gold exploration program that was not before possible.

Visual examination of the veins by the authors, combined with voluminous assay data and milling results from previous work on the veins over the years clearly shows that the gold generally occurs as very coarse grains dispersed in the quartz. Consequently, there is a very strong "nugget effect" that significantly effects sampling and assaying results. It is believed that most if not all samples taken from the properties, over time, were assayed by standard fire assay methods, without screening and assaying the coarse "metallic" gold component. The disseminated nature of the gold, combined with the likelihood that much of the coarse "metallic" gold was never included in the assays, has important implications for past and future exploration on the Hexagon properties. Had the coarse "metallic" component been screened out and included in the earlier assays, it seems likely that historic assay results would have been considerably higher, with fewer "nil to trace" assays. All future assaying of samples from the Bad Vermilion Group should include screening and assaying of the metallic component.

Bulk sampling on surface by Hexagon on the Nugget, Beaverdam and Zinc veins, has shown this to be an effective technique in evaluating veins in the Bad Vermilion area. Taking larger, more representative samples from the veins and

using the specialized assaying technique described above should significantly reduce the nugget effect and give more representative values.

In any future explorations in this area, consideration should be given to using a special bulk sampling technique when sampling veins at surface. In using this innovative method, the upper two to four feet of each vein to be tested should be continuously bulk sampled, and then milled on site using a small, portable gravity mill. This mill could be moved around from vein to vein, or sited centrally, with ore trucked to the temporary site for milling. High-grade shoots within the veins, identified by the gravity milling results, could be tagged to help concentrate future work at deeper depths. This technique could be used on the Foley and Golden Star veins, as well as the many other veins on the Hexagon property.

The highest priority target on the Bad Vermilion Group is the Foley Mine. This past producer reportedly has over 3.5 km. of underground development work to a depth of 850 feet, and has a proven track record of producing gold. Reports in 1922-27, although unverified, further suggest that the potential for larger ore bodies may increase with depth.

While the primary focus of new exploration should be on the Foley Mine claims, at a later date the Golden Star Mine property should be investigated as well. Although less is known about this past producer, it also has a record of production. It appears that only the main ore vein has been extensively explored. The development potential of the additional documented veins on the property needs to be tested. Also, a stripping and trenching program might expose new veins.

### 21.1.2 Base Metals

Base metals are not sufficiently concentrated in the gold bearing veins to be of economic importance, other than as a by-product of gold milling. However, copper mineralization has been reported in the Bad Vermilion anorthosite intrusion and in volcanic rocks on the Golden Star property. This suggests that the proposed Finger Bay fault or shear zone may have some influence on base metal concentration.

Although the overall base metal potential for the Bad Vermilion Group is low, there is one base metal target area that should be investigated at a later date. At the north end of the claim groups, and outside of the Bad Vermilion tonalite/trondhjemite intrusion, a number of electromagnetic conductors were located by airborne surveys by both the Ontario Geological Survey and later, P.I.R.P Holdings. One of the airborne INPUT anomalies is a first-order anomaly. These conductors probably lie within the volcanic rocks, but close to or along their contact of the Bad Vermilion anorthosite.

One drill hole put down to test one of these conductors reportedly encountered a wide zone of faulting or shearing within anorthosite, but it is unlikely that shearing would explain all of these conductors. There is a possibility that economic sulphide minerals remain to be detected at depth in this area.

## 21.2 COUSINEAU GROUP

### 21.2.1 Base Metals

The nature of the volcanic rocks and related alteration and mineralization underlying the Cousineau Group of claims suggest that these claims have good potential to host typical, Archean-type volcanogenic massive sulphide deposits. The presence of scattered zinc and copper occurrences throughout the area, and a number of interesting EM anomalies, support this conclusion.

While there has been considerable base metal exploration carried out on the Cousineau Group of claims over the past 30 years, especially by Inco, the considerable strike length of the favourable volcanic units is such that it is unlikely that all targets have been adequately examined and explored.

Although not a high priority, at least one base metal target should be investigated. Work by Inco (1991) revealed a 600 metre long, EM conductor on claims 1249402 and 1249422.This conductor, which lies in an area of felsic volcanics, is reportedly coincident with a 200+ ppm soil zinc anomaly. There is no mag correlation, and Inco interpreted this conductor to be from a shallow source with little depth extent. There is no mention in the public record of it ever having been drilled.

### 21.2.2 Gold

Descriptions of the structural features, alteration and sulphide mineralization associated with the documented gold deposits of this group suggests that the Cousineau Group has potential for classic deformation-zone hosted gold deposition. Initial work should be concentrated in the immediate vicinity of the documented occurrences and along the strike of any other mineralized deformation zones identified.

Two gold targets should be investigated.

At the eastern edge of the Group, three old gold showings lie along strike with each other: the Alice "A", the Gold Bug, and the Emma Abbott. Work by Fire River Gold Corp. (1988) suggests that these showings lie within a major structural feature, with related alteration and sulphide mineralization that has a strike length of at least one mile. High gold assays from grabs are also reported from these occurrences. Further exploration is warranted in this area.

Of lesser interest are four documented gold occurrences located on the former Inco (now Hexagon) ground; the Pittsburgh Girl in the north, the "A" & "B"

zones in the central part of the block, and the Fighting Chance in the south. Earlier prospecting and sampling on these occurrences reportedly gave high gold assays from grab samples from each of these showings. Although recent chip and channel sampling on some of these showings by Inco (1991) failed to confirm the earlier high gold values, further exploration would seem to be warranted.

These two targets on the Cousineau Group are low priority targets.

## 21.3 East Block Group

### 21.3.1 Base Metals

The East Block Group of claims all lie north of the major Quetico Fault, and the volcanic rocks underlying this group are significantly different from the rocks to the west. Not surprisingly, the style of mineralization differs too. The rocks underlying the Cousineau Group are predominantly intermediate to felsic, and sulphide mineralization is associated with the felsic pyroclastic and chemical sediment units. The rocks underlying the East Block claims, on the other hand, are predominantly mafic, and are both extrusive and intrusive. The sulphide mineralization here is reportedly more commonly associated with mafic rocks.

The East Block has potential largely for base metals associated with the mafic intrusive and extrusive rocks of the area.

Two base metal exploration targets are suggested.

In the vicinity of the Bennett Creek Stock, near Polygon Pond, sulphide mineralization is reportedly associated with the extrusive mafic volcanic rocks. The" Massive Sulphide Zone" is made up of two parallel massive sulphide horizons having a strike length of approximately 1.5 kilometres.

While most of this zone appears to lie off the claims of Hexagon, there may be extensions that strike onto Hexagon's ground. Although drilling by Noranda in 1958 gave only low base metal values, this occurrence should probably be researched further and re-examined if warranted.

Also in the eastern block and just south of the Massive Sulphide Zone, recent work by Mustang Minerals Corp. (2000) describes a mineralized zone in an anorthosite sill (the Footwall Contact Zone) containing significant disseminated and stringer copper mineralization. This occurrence merits a re-examination, as well.

These two targets on the East Block Group are also relatively low priority targets.

## 22. RECOMMENDATIONS

The highest priority area for new work on the properties is the Bad Vermilion Group of claims. This is because of its past history of mining, the extensive nature of reported gold mineralization in this area, and the high-grade assays obtained from many of the documented occurrences. Within this claim group, initial work should be focused on the Foley Mine, which has had the most development work, and is the most significant past producing mine on the property.

A two-phase program is proposed. Phase I focuses on the potential for larger ore bodies at depth on the Foley Mine. Phase II continues a more in-depth evaluation of the Foley Mine, but also proposes exploration on other targets on the Hexagon property. The Phase II work is not contingent upon the results of the Phase I work on the Foley Mine.

### ***Phase I***

1.A comprehensive compilation and analyse of data should be undertaken as soon as possible, to help focus future work on the property. Because of the large size of Hexagon's property, the exceptionally large number of documented mineral occurrences, and the large amount of data and information on previous exploration work, it was not possible to fully analyse, evaluate and plot locations of all the available data under the terms of reference for this report.

| | |
|---|---|
| Geologist: 4 weeks + expenses | **$ 7,000** |

2. A control grid should be cut over the Foley Mine structure to tie in all shafts, trenches and other mine workings, as well as to establish the drill hole locations referred to below. An electromagnetic survey should also be run over the grid to delineate the extent of the Foley structure and guide the stripping and trenching referred to below.

| | |
|---|---|
| Linecutting: 20 miles @ $450/mile | $ 9,000 |
| Geophysical surveys: | $21,000 |
| | **$30,000** |

3. Existing underground workings on the Foley Mine extend to a depth of 850 feet. Earlier reports, although unverified, indicate that the veins at this depth are significantly wider than at the upper levels, and carry significant gold values. At least two deep drill holes, of approximately 2,000 feet each should be drilled to test the Foley Mine structures at depths below the existing workings.

| | |
|---|---|
| Diamond Drilling: 4,000 ft. of HQ core @ $25/ft. | $100,000 |
| Pulp metallic fire assaying: 380 assays @$45/ft. | $ 17,100 |
| | **$117,000** |

4. Geological/Mining consulting services will be required to supervise the above work and to obtain the necessary government permits and approvals.

| | |
|---|---|
| Consulting Services | **$ 20,000** |

5. A geological assistant will be required to assist Company personnel with the above work.

| | |
|---|---|
| 2 Assistants for 5 months + expenses | **$ 40,000** |
| **Total : Phase I** | **$204,000** |

## ***Phase II***

1. On the Foley claims, a program of stripping, trenching and sampling is recommended to identify and sample, on surface, extensions of the main ore veins and any additional parallel gold bearing veins. Because of the strong "nugget effect", larger than normal samples will have to be taken, and special assaying techniques will have to be used.

| | |
|---|---|
| Backhoe/Loader: 15 days @ $ 1,400/day | $21,000 |
| Drilling & Blasting: 20 days @ $1,000/day | $20,000 |
| Transportation: $1,500/month for 2 months | $ 3,000 |
| Pulp metallic fire assaying: 400 samples @ $45 per assay | $ 18,000 |
| | **$ 62,000** |

2. Documents exist that suggest that some ore may still remain in place in the Foley Mine that was not removed during the last phases of development in the 1920s and 1930s. Given the limited amount and often uncertain nature of underground sampling data, the underground mine workings should be dewatered, the shaft reconstructed to the extent necessary for temporary use, and the approximately 3.5 km. of existing drifts re-sampled and assayed. Special assaying techniques will also be required for assaying the core.

| | |
|---|---|
| Dewater, sample and assay 3.5 km. of drifts. | **$113,000** |

3. Geological/Mining consulting services will be required to supervise the above work and to obtain the necessary government permits and approvals.

| | |
|---|---|
| Consulting Services | **$ 40,000** |

4. Geological assistants will be required to assist Company personnel with the above work.

| | |
|---|---|
| 2 Assistants for 5 months + expenses | **$ 40,000** |

**5.** On the Golden Star claims, only the main ore vein has been extensively explored. The establishment of a picket grid, stripping, trenching and sampling

are required to investigate the additional thirteen documented veins on the property. Like the Foley Mine claims, special care is needed to overcome the strong "nugget" effect of the coarse gold.

| | |
|---|---|
| Geologist & Asst.: 4 weeks + expenses | $ 14,000 |
| Backhoe/Loader: 4 days @ 1,400 /day | 5,600 |
| Drilling & Blasting: 6 days @ 1,000/day | 6,000 |
| Transportation: | 1,000 |
| Assaying: 100 samples @ 45.00 per | 4,500 |
| | **$31,100** |

6. The only strong airborne electromagnetic anomalies found in the Trondhjemite intrusion are on the Golden Star property. The picket grid suggested above should be extended to include these anomalies, and geological mapping, prospecting, and an EM survey carried out to explain the conductors.

| | |
|---|---|
| Geologist & Asst.: 4 weeks + expenses | $ 9,000 |
| Line Cutting: 50 kms @ 450/km. | 22,500 |
| EM Survey: 50 kms @ 250 /km | 12,500 |
| | **$44,000** |

7. The east-west trend of the three documented gold showings in the vicinity of the Alice "A" occurrence should be investigated further. A detailed examination of the geology, structure and mineralization of the Alice A and other two nearby occurrences should be carried out to establish the nature and the control of the gold mineralization. From this work, a detailed exploration program could be designed, which would include detailed mapping and an I.P. survey. Additional claims will have to be acquired in both directions, east-west, along the "Alice A" structure.

| | |
|---|---|
| Geologist & Asst: 2 weeks + expenses | 6,250 |
| Line Cutting: 15 kms @ 450/km | 6,750 |
| IP Survey: 15 kms @ 1,200 per | 18,000 |
| | **$31,000** |

8. The 600 metre long, EM conductor found by Inco on Hexagon claims 1249402 and 1249422, although not a high priority target by that company, should probably be investigated by Hexagon. This will require a cut grid, EM survey, and one diamond drill hole

| | |
|---|---|
| Geologist & Asst.: 2 weeks + expenses | $ 4,000 |
| Line Cutting: 10 kms @ 450/km | 4,500 |
| EM Survey: 10 kms @ 250/km | 2,500 |
| Diamond Drilling 1 hole | 7,000 |
| | **$18,000** |
| **Total : Phase II** | **$379,000** |

**Project Cost Summary**

**Phase I (Foley Mine)**

| | |
|---|---|
| Compilation | $ 7,000 |
| Control grid and geophysics | $ 30,000 |
| Drilling | $ 117,000 |
| Geol./Mng.Engr. Consulting | $ 20,000 |
| Geol. Asst. | $ 40,000 |
| **Total : Phase I** | **$ 204,000** |

**Phase II**

| | |
|---|---|
| Trenching, surface sampling & assaying (Foley Mine) | $ 62,000 |
| Dewatering & underground sampling (Foley Mine) | $ 113,000 |
| Geol./Mng.Engr. consulting (Foley Mine) | $ 40,000 |
| Geol. Asst. (Foley Mine) | $ 40,000 |
| Trenching, surface sampling & assaying (Golden Star) | $ 31,000 |
| Control grid & geophysics (Golden Star) | $ 44,000 |
| Control grid, geologic mapping & geophysics (Cousineau Group / Alice A) | $ 31,000 |
| Control grid, geophysics & drilling (Cousineau Group/G.P. anomaly) | $ 18,000 |
| **Total : Phase II** | **$ 379,000** |

In the authors' opinion, the character of the property is of sufficient merit to justify the programs recommended.

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## 24. AUTHORS' QUALIFICATIONS


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## *Certificate of Author*

1. I am currently an independent consultant operating under the name of and from the address shown above.

2. I graduated with a B.Sc. Degree in Geological Engineering from Michigan Technological University in Houghton Michigan, U.S.A. in 1955. In addition, I have obtained an M.Sc. Degree in Geological Engineering from Michigan Technological University in 1961.

3. I am a member of Professional Engineers of Ontario.

4. I have worked as a geologist for a total of 47 years since my graduation from university.

5. I have read the definition of "qualified person" set out in National 1nstrument 43-10I ("NI-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

6. I am responsible for the preparation of sections 1 through 7, 10,11,15 through 17, and 19 Through 21, of the technical report titled "Report for Solana Petroleum Corporation on the Northwestern Ontario Gold & Base Metal Properties, Mine Centre Area, Rainy River District, Held by Hexagon Gold (Ontario) Ltd.", dated July 15, 2003, (the "Technical Report") relating to the Mine Centre area properties (Bad Vermilion Group, Cousineau Group and East Block Group) held by Hexagon Gold (Ontario), Ltd. I visited the Hexagon property in May 2000, for one day.

7. I have had prior involvement with the property that is the subject of this Technical Report. The nature of my prior involvement was the preparation of a Notice of Advanced Exploration and Closure Plan, required under the Ontario Mining Act,

in 2000. I also examined numerous mineral showings on the property over a 29-year period as Resident and Regional Geologist with the Ontario government.

8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.

9. I am independent of both Solana Petroleum Corp. and Hexagon Gold (Ontario) Ltd., applying all of the tests in section 1.5 of National Instrument 43-101.

10. I have read National Instrument 43-101 and Form 43-101Fl, and the Technical Report has been prepared in compliance with that instrument and form.

11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 15 th Day of July, 2003

Richard C. Beard


Signature of Qualified Person

RICHARD C. BEARD

Print name of Qualified Person

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# *Certificate of Author*

1. I am currently an independent consultant operating under the name of and from the address shown above.

2. I am a graduate of the University of Wales, U.K. (H.B.Sc. Geology 1963) and the University of Western Ontario, London (M.Sc. Geology 1967).

3. I am a member of the Association of Professional Geoscientists of Ontario.

4. I have worked as a geologist for a total of 38 years *since* my graduation from university.

5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

6. I am responsible for the preparation of sections 8, 9, 12, 13, 14 and 18 of the technical report titled "Report for Solana Petroleum Corporation on the Northwestern Ontario Gold & Base Metal Properties, Mine Centre Area, Rainy River District, Held by Hexagon Gold (Ontario) Ltd.", dated July 15, 2003, (the "Technical Report") relating to the Mine Centre area properties (Bad Vermilion Group, the Cousineau Group, and the East Block Group) held by Hexagon Gold (Ontario), Ltd. I visited the Hexagon property on 2 June 2002, for one day.

7. I have had prior involvement with the property that is the subject of this Technical Report in the form of examination of numerous mineral showings on the property over an 18-year period as Resident Geologist with the Ontario government.

8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.

9. I am independent of both Solana Petroleum Corp. and Hexagon Gold (Ontario) Ltd., applying all of the tests in section 1.5 of National Instrument 43-101.

10. I have read National Instrument 43-101 and Form 43-101Fl, and the Technical Report has been prepared in compliance with that instrument and form.

11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 15th Day of July, 2003

Signature of Qualified Person

CHARLES E. BLACKBURN

Print name of Qualified Person

# Appendix A: List of Mining Claims

## Mining Lands - Mining Claims Client Report

**CLIENT:** 303633 - HEXAGON GOLD (ONTARIO) LTD.

| TOWNSHIP / AREA | Claim Number | No. of Units | Recording Date | Claim Due Date | Status | Percent Option | Work Required | Total Applied | Total Reserve | Claim Bank |
|---|---|---|---|---|---|---|---|---|---|---|
| **Bad Vermilion Group** | | | | | | | | | | |
| BAD VERMILION LAKE (KEN) | K 1249432 | 16 | 2002-APR 22 | 2004-APR-22 | A | 100.00% | 6400 | 0 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 1240294 | 4 | 2002-JAN-02 | 2004-JAN-02 | A | 100.00% | 1600 | 0 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 851621 | 1 | 1985-AUG-02 | 2003-AUG-02 | A | 100.00% | 400 | 6800 | 860 | 0 |
| BAD VERMILION LAKE (KEN) | K 855740 | 1 | 1985-DEC-09 | 2003-DEC-09 | A | 100.00% | 400 | 6800 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 855741 | 1 | 1985-DEC-09 | 2003-DEC-09 | A | 100.00% | 400 | 6800 | 177 | 0 |
| BAD VERMILION LAKE (KEN) | K 855742 | 1 | 1985-DEC-09 | 2003-DEC-09 | A | 100.00% | 400 | 6800 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 875510 | 1 | 1986-JUL-09 | 2003-JUL-09 | A | 100.00% | 400 | 6400 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 875511 | 1 | 1986-JUL-09 | 2003-JUL-09 | A | 100.00% | 400 | 6400 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 875512 | 1 | 1986-JUL-09 | 2003-JUL-09 | A | 100.00% | 400 | 6400 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 875513 | 1 | 1986-JUL-09 | 2003-JUL-09 | A | 100.00% | 400 | 6400 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 875514 | 1 | 1986-JUL-09 | 2003-JUL-09 | A | 100.00% | 400 | 6400 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 875515 | 1 | 1986-JUL-09 | 2003-JUL-09 | A | 100.00% | 400 | 6400 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 875516 | 1 | 1986-JUL-09 | 2003-JUL-09 | A | 100.00% | 400 | 6400 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 875517 | 1 | 1986-JUL-09 | 2003-JUL-09 | A | 100.00% | 400 | 6400 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 875543 | 1 | 1986-JUL-09 | 2003-JUL-09 | A | 100.00% | 400 | 6400 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 875544 | 1 | 1986-JUL-09 | 2003-JUL-09 | A | 100.00% | 400 | 6400 | 2785 | 0 |
| BAD VERMILION LAKE (KEN) | K 875545 | 1 | 1986-JUL-09 | 2003-JUL-09 | A | 100.00% | 400 | 6400 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 875546 | 1 | 1986-JUL-09 | 2003-JUL-09 | A | 100.00% | 400 | 6400 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 875547 | 1 | 1986-JUL-09 | 2003-JUL-09 | A | 100.00% | 400 | 6400 | 11584 | 0 |
| BAD VERMILION LAKE (KEN) | K 875548 | 1 | 1986-JUL-09 | 2003-JUL-09 | A | 100.00% | 400 | 6400 | 1051 | 0 |
| BAD VERMILION LAKE (KEN) | K 875549 | 1 | 1986-JUL-09 | 2003-JUL-09 | A | 100.00% | 400 | 6400 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 875550 | 1 | 1986-JUL-09 | 2003-JUL-09 | A | 100.00% | 400 | 6400 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 875551 | 1 | 1986-JUL-09 | 2003-JUL-09 | A | 100.00% | 400 | 6400 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 875552 | 1 | 1986-JUL-09 | 2003-JUL-09 | A | 100.00% | 400 | 6400 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 875553 | 1 | 1986-JUL-09 | 2003-JUL-09 | A | 100.00% | 400 | 6400 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 875554 | 1 | 1986-JUL-18 | 2003-JUL-18 | A | 100.00% | 400 | 6400 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 875555 | 1 | 1986-JUL-18 | 2003-JUL-18 | A | 100.00% | 400 | 6400 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 3000805 | 9 | 2003-MAR-05 | 2005-MAR-05 | A | 100.00% | 3600 | 0 | 0 | 0 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| BAD VERMILION LAKE (KEN) | K 3000806 | 15 | 2003-MAR-05 | 2005-MAR-05 | A | 100.00% | 6000 | 0 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 3000807 | 12 | 2003-MAR-05 | 2005-MAR-05 | A | 100.00% | 4800 | 0 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 3000808 | 12 | 2003-FEB-24 | 2005-FEB-24 | A | 100.00% | 4800 | 0 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 3000809 | 9 | 2003-FEB-24 | 2005-FEB-24 | A | 100.00% | 3600 | 0 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 3000810 | 12 | 2003-FEB-24 | 2005-FEB-24 | A | 100.00% | 4800 | 0 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 3000811 | 6 | 2003-FEB-24 | 2005-FEB-24 | A | 100.00% | 2400 | 0 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 3000812 | 1 | 2003-FEB-24 | 2005-FEB-24 | A | 100.00% | 400 | 0 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 3000813 | 10 | 2003-FEB-24 | 2005-FEB-24 | A | 100.00% | 4000 | 0 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 3000814 | 8 | 2003-MAR-28 | 2005-MAR-28 | A | 100.00% | 3200 | 0 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 3000815 | 7 | 2003-MAR-28 | 2005-MAR-28 | A | 100.00% | 2800 | 0 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 3000816 | 15 | 2003-MAR-28 | 2005-MAR-28 | A | 100.00% | 6000 | 0 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 3000817 | 12 | 2003-MAR-28 | 2005-MAR-28 | A | 100.00% | 4800 | 0 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 3000818 | 15 | 2003-MAR-28 | 2005-MAR-28 | A | 100.00% | 6000 | 0 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 3000819 | 14 | 2003-MAR-28 | 2005-MAR-28 | A | 100.00% | 5600 | 0 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 3000820 | 8 | 2003-MAR-28 | 2005-MAR-28 | A | 100.00% | 3200 | 0 | 0 | 0 |
| | # of Units, Bad Vermilion Group | 210 | | | | | | | | |

**Cousineau Group**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| BAD VERMILION LAKE (KEN) | K 1249430 | 7 | 2002-JAN-17 | 2004-JAN-17 | A | 100.00% | 2800 | 0 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 1249434 | 1 | 2002-JAN-17 | 2004-JAN-17 | A | 100.00% | 400 | 0 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 1018555 | 1 | 1988-JAN-15 | 2004-JAN-15 | A | 100.00% | 400 | 6000 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 1018556 | 1 | 1988-JAN-15 | 2004-JAN-15 | A | 100.00% | 400 | 6000 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 1018557 | 1 | 1988-JAN-15 | 2004-JAN-15 | A | 100.00% | 400 | 6000 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 1018559 | 1 | 1988-JAN-15 | 2004-JAN-15 | A | 100.00% | 400 | 6000 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 1018560 | 1 | 1988-JAN-15 | 2004-JAN-15 | A | 100.00% | 400 | 6000 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 1018578 | 1 | 1988-APR-07 | 2003-APR-07 | A | 100.00% | 400 | 5600 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 1018579 | 1 | 1988-APR-07 | 2003-APR-07 | A | 100.00% | 400 | 5600 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 1024617 | 1 | 1987-NOV-09 | 2003-NOV-09 | A | 100.00% | 400 | 6000 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 1024618 | 1 | 1987-NOV-09 | 2003-NOV-09 | A | 100.00% | 400 | 6000 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 1024911 | 1 | 1987-NOV-09 | 2003-NOV-09 | A | 100.00% | 400 | 6000 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 1024913 | 1 | 1987-NOV-09 | 2003-NOV-09 | A | 100.00% | 400 | 6000 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 1025127 | 1 | 1988-JAN-15 | 2004-JAN-15 | A | 100.00% | 400 | 6000 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 1025128 | 1 | 1988-JAN-15 | 2004-JAN-15 | A | 100.00% | 400 | 5600 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 1050333 | 1 | 1988-SEP-07 | 2003-SEP-07 | A | 100.00% | 400 | 5600 | 0 | 0 |
| BAD VERMILION LAKE (KEN) | K 1050563 | 1 | 1988-SEP-07 | 2003-SEP-07 | A | 100.00% | 400 | 5600 | 0 | 0 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| BAD VERMILION LAKE (KEN) | K 1050565 | 1 | 1988-NOV-14 | 2003-NOV-14 | A | 100.00% | 400 | 5600 | 330 | 0 |
| BAD VERMILION LAKE (KEN) | K 1177987 | 3 | 1999-NOV-24 | 2003-NOV-24 | A | 100.00% | 1200 | 2400 | 0 | 0 |
| BENNET LAKE | K 1178166 | 2 | 1996-FEB-09 | 2004-FEB-09 | A | 100.00% | 800 | 4800 | 0 | 0 |
| BENNET LAKE | K 1249426 | 5 | 2002-JAN-17 | 2004-JAN-17 | A | 100.00% | 2000 | 0 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1050328 | 1 | 1988-MAY-17 | 2003-MAY-17 | A | 100.00% | 400 | 5600 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1050329 | 1 | 1988-MAY-17 | 2003-MAY-17 | A | 100.00% | 400 | 5600 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1050574 | 1 | 1988-OCT-17 | 2003-OCT-17 | A | 100.00% | 400 | 5600 | 30 | 0 |
| LITTLE TURTLE LAKE | K 1050577 | 1 | 1988-OCT-17 | 2003-OCT-17 | A | 100.00% | 400 | 5600 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1050578 | 1 | 1988-OCT-17 | 2003-OCT-17 | A | 100.00% | 400 | 5600 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1050642 | 1 | 1988-OCT-24 | 2003-OCT-24 | A | 100.00% | 400 | 5600 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1050812 | 1 | 1988-DEC-21 | 2003-DEC-21 | A | 100.00% | 400 | 5600 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1050814 | 1 | 1989-APR-03 | 2003-OCT-28 | A | 100.00% | 400 | 5200 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1050815 | 1 | 1989-APR-03 | 2003-OCT-28 | A | 100.00% | 400 | 5200 | 77 | 0 |
| LITTLE TURTLE LAKE | K 1050816 | 1 | 1989-APR-03 | 2003-OCT 28 | A | 100.00% | 400 | 5200 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1079989 | 1 | 1989-MAY-19 | 2003-MAY-19 | A | 100.00% | 400 | 6500 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1084002 | 1 | 1989-MAY-19 | 2003-MAY-19 | A | 100.00% | 400 | 5200 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1084003 | 1 | 1989-MAY-19 | 2003-MAY-19 | A | 100.00% | 400 | 5200 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1084004 | 1 | 1989-MAY-19 | 2003-MAY-19 | A | 100.00% | 400 | 5200 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1084005 | 1 | 1989-MAY-19 | 2003-MAY-19 | A | 100.00% | 400 | 5200 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1084006 | 1 | 1989-MAY-19 | 2003-MAY-19 | A | 100.00% | 400 | 5200 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1104632 | 1 | 1989-APR-28 | 2003-OCT 28 | A | 100.00% | 400 | 5200 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1104633 | 1 | 1989-APR-28 | 2003-OCT-28 | A | 100.00% | 400 | 5200 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1051135 | 1 | 1989-MAY-04 | 2003-MAY-04 | A | 100.00% | 400 | 5200 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1249401 | 12 | 2002-JAN-17 | 2004-JAN-17 | A | 100.00% | 4800 | 0 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1249402 | 12 | 2002-JAN-17 | 2004-JAN-17 | A | 100.00% | 4800 | 0 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1249421 | 12 | 2002-JAN-17 | 2004-JAN-17 | A | 100.00% | 4800 | 0 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1249422 | 4 | 2002-JAN-17 | 2004-JAN-17 | A | 100.00% | 1600 | 0 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1249423 | 12 | 2002-JAN-17 | 2004-JAN-17 | A | 100.00% | 4800 | 0 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1249424 | 7 | 2002-JAN-17 | 2004-JAN-17 | A | 100.00% | 2800 | 0 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1249425 | 10 | 2002-JAN-17 | 2004-JAN-17 | A | 100.00% | 4000 | 0 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1249427 | 9 | 2002-JAN-17 | 2004-JAN-17 | A | 100.00% | 3600 | 0 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1249428 | 3 | 2002-JAN-17 | 2004-JAN-17 | A | 100.00% | 1200 | 0 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1249429 | 11 | 2002-JAN-17 | 2004-JAN-17 | A | 100.00% | 4400 | 0 | 0 | 0 |
| LITTLE TURTLE LAKE | K 1249431 | 1 | 2002-JAN-17 | 2004-JAN-17 | A | 100.00% | 400 | 0 | 0 | 0 |
| | # of Units, Cousineau Group | 146 | | | | | | | | |

## East Block Group

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BENNETT LAKE | K 1178569 | 12 | 1997-SEP-24 | 2004-SEP-24 | A | 100.00% | 4800 | 24000 | 0 | 0 |
| BENNETT LAKE | K 1177916 | 8 | 1996-NOV-05 | 2003-MAY-06 | A | 100.00% | 3200 | 0 | 0 | 0 |
| BENNETT LAKE | K 1177917 | 12 | 1996-NOV-05 | 2003-MAY-06 | A | 100.00% | 4800 | 0 | 0 | 0 |
| BENNETT LAKE | K 1177918 | 6 | 1996-NOV-05 | 2003-MAY-06 | A | 100.00% | 2400 | 0 | 0 | 0 |
| BENNETT LAKE | K 1177919 | 12 | 1996-NOV-05 | 2003-MAY-06 | A | 100.00% | 4800 | 0 | 0 | 0 |
| BENNETT LAKE | K 1177920 | 16 | 1996-NOV-05 | 2003-MAY-06 | A | 100.00% | 6400 | 0 | 0 | 0 |
| BENNETT LAKE | K 1177950 | 12 | 1997-FEB-10 | 2003-AUG-11 | A | 100.00% | 4800 | 0 | 0 | 0 |
| BENNETT LAKE | K 1229721 | 8 | 1997-DEC-09 | 2004-DEC-09 | A | 100.00% | 3074 | 16126 | 0 | 0 |
| | # of Units, East Block Group | 86 | | | | | | | | |
| Total number of units, unpatented Mining Claims, Hexagon property | | 442 | | | | | | | | |

# APPENDIX B:
# CROWN LEASES & PATENTED CLAIMS

## BAD VERMILION GROUP

GOLDEN STAR LEASES AND PATENTED CLAIMS (36 Units):

The Golden Stir Mine Properties listed below are 100% owned by Hexagon Gold and subject to a 2% NSR to Golden Star Mine Centre Exploration Ltd. These properties consist of a total of 27 Crown Leases and 9 Patented Claims totaling 1,44O acres and include both Mineral and Surface Rights.

CROWN LEASES (27 Units):

| Area | Lease Number | Area | Lease Number |
|---|---|---|---|
| Bad Vermilion Lake | K202521 | Bad Vermilion Lake | K532136 |
| Bad Vermilion Lake | K44632 | Bad Vermilion Lake | K532137 |
| Bad Vermilion Lake | K349055 | Bad Vermilion Lake | K532138 |
| Bad Vermilion Lake | K349056 | Bad Vermilion Lake | K532139 |
| Bad Vermilion Lake | K349057 | Bad Vermilion Lake | K532140 |
| Bad Vermilion Lake | K349058 | Bad Vermilion Lake | K532141 |
| Bad Vermilion Lake | K349059 | Bad Vermilion Lake | K532142 |
| Bad Vermilion Lake | K349060 | Bad Vermilion Lake | K532143 |
| Bad Vermilion Lake | K349061 | Bad Vermilion Lake | K629043 |
| Bad Vermilion Lake | K349062 | Bad Vermilion Lake | K629044 |
| Bad Vermilion Lake | K349063 | Bad Vermilion Lake | K629046 |
| Bad Vermilion Lake | K349064 | Bad Vermilion Lake | K629048 |
| Bad Vermilion Lake | K349065 | Bad Vermilion Lake | K532134 |
| Bad Vermilion Lake | K532135 | | |

PATENTED CLAIMS (9 UNITS)

| Area | Claim Number | Number of Units |
|---|---|---|
| Bad Vermilion Lake | AL 116 | 1 |
| Bad Vermilion Lake | AL 131 | 1 |
| Bad Vermilion Lake | JO 41 | 2 |
| Bad Vermilion Lake | K237 | 1 |
| Bad Vermilion Lake | AD 2 | 1 |
| Bad Vermilion Lake | AD 3 | 2 |
| Bad Vermilion Lake | AD 4 | 1 |

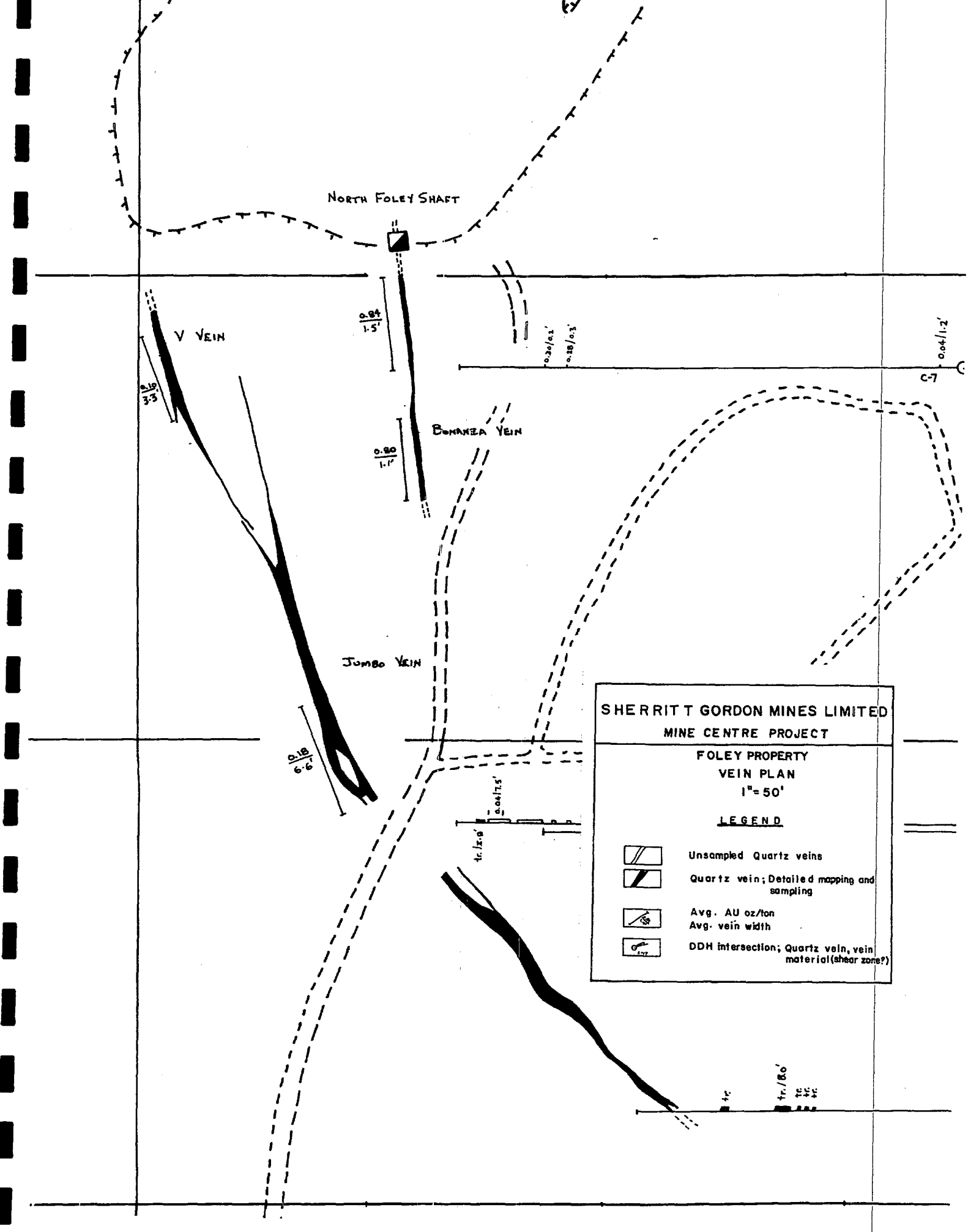
CONE OPTION LEASES (16 UNITS):

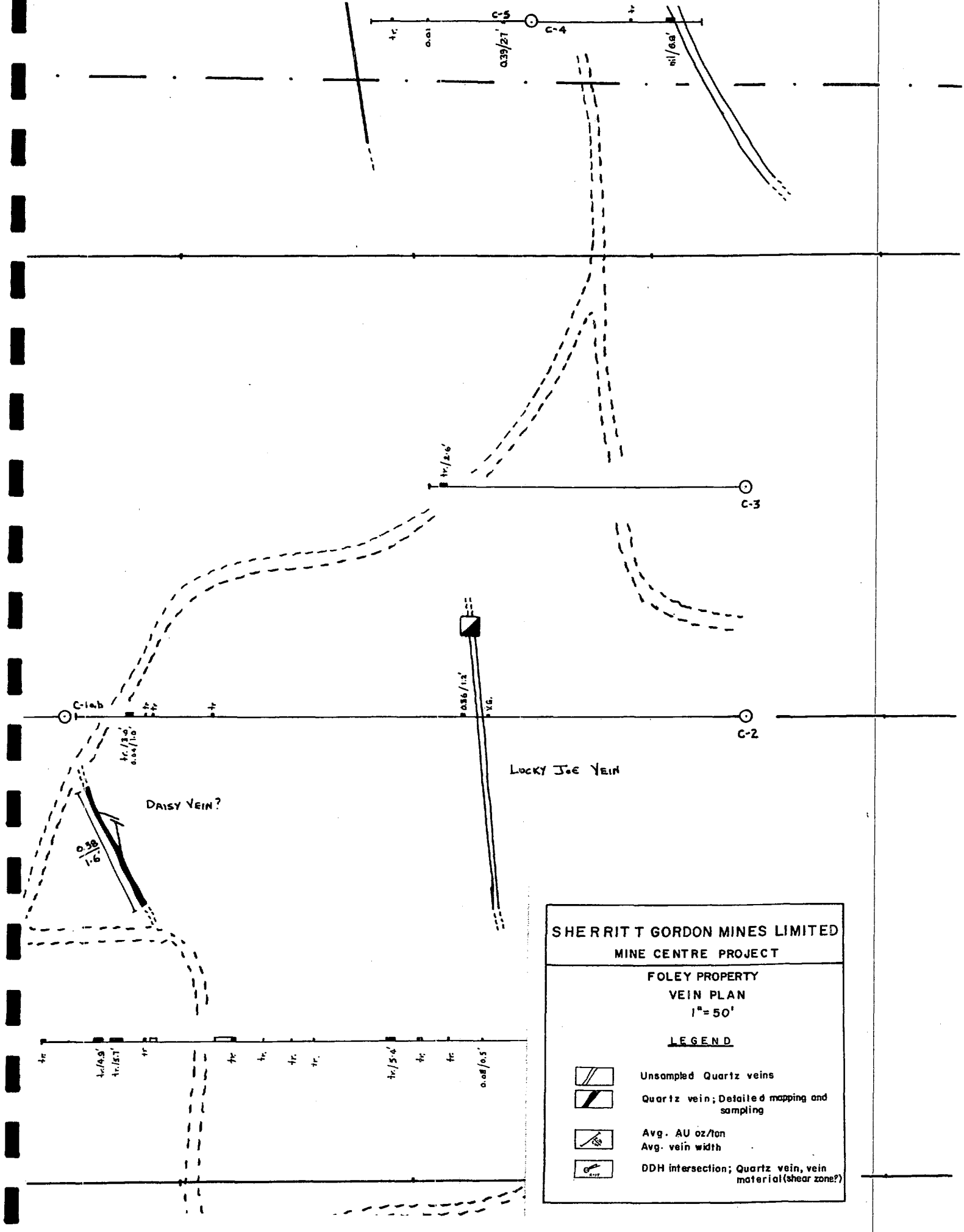
An option agreement has been reached between Russell C. Cone and Hexagon Gold covering 16 claims (totalling 640 acres), shown below. These leased claims are registered in the name of Russell C, Cone and include Mineral and Surface Rights. These leases are subject to a sliding scale ore purchase Royalty.

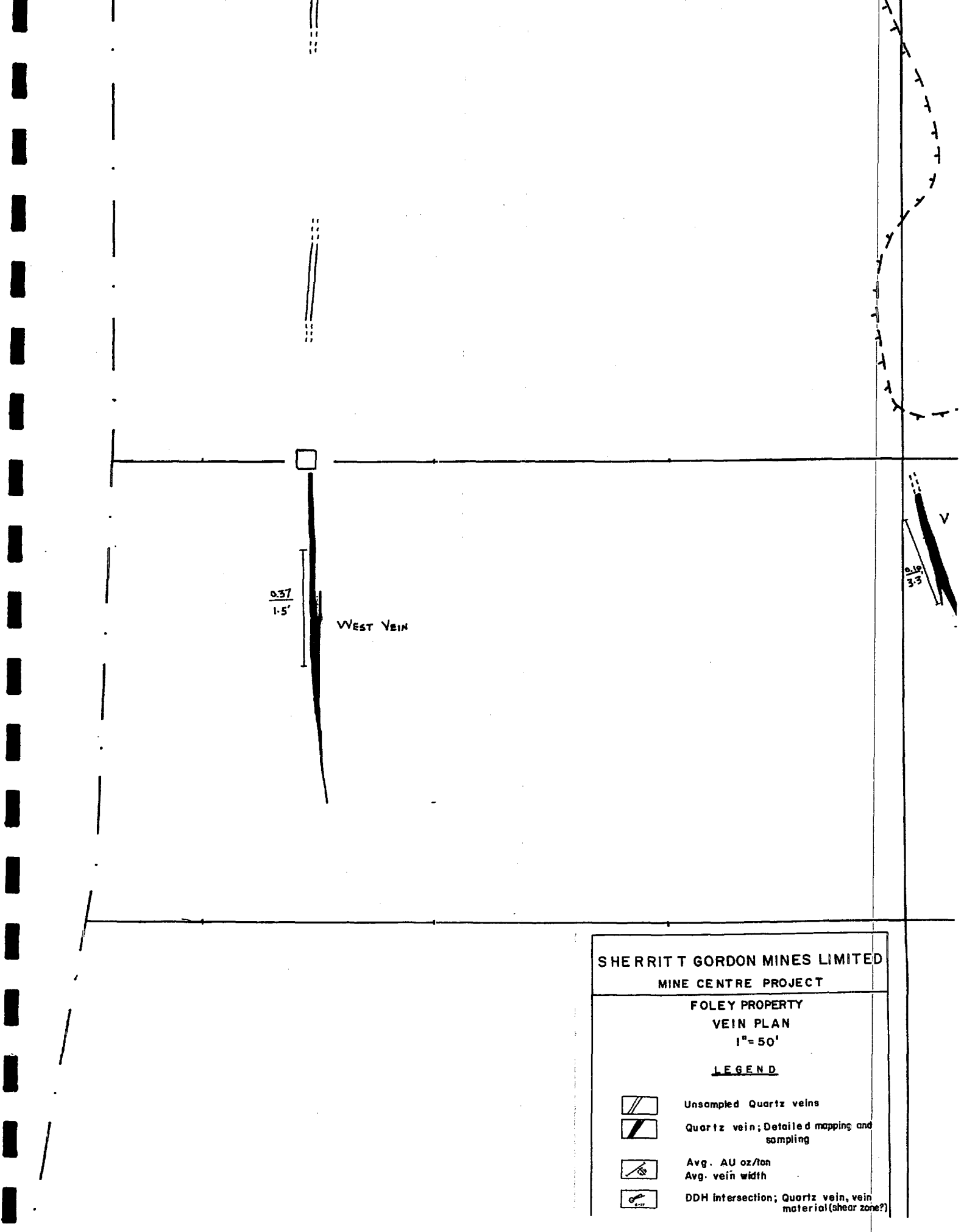
| Area | Lease Number |
|---|---|
| Bad Vermilion Lake | K457118 |
| Bad Vermilion Lake | K457119 |
| Bad Vermilion Lake | K457120 |
| Bad Vermilion Lake | K558637 |
| Bad Vermilion Lake | K629206 |
| Bad Vermilion Lake | K629207 |
| Bad Vermilion Lake | K475099 |
| Bad Vermilion Lake | K475100 |
| Bad Vermilion Lake | K475101 |
| Bad Vermilion Lake | K475102 |
| Bad Vermilion Lake | K475103 |
| Bad Vermilion Lake | K475116 |
| Bad Vermilion Lake | K475123 |
| Bad Vermilion Lake | K475124 |
| Bad Vermilion Lake | K475223 |
| Bad Vermilion Lake | K475224 |

## APPENDIX C – VEIN PLANS, FOLEY MINE,

(From Sherritt Gordon Mines Ltd., 1982)


NORTH FOLEY SHAFT
V VEIN
0.84/1.5'
0.10/3.3'
BONANZA VEIN
0.80/1.1'
JUMBO VEIN
0.18/6.6'
0.20/0.2'
0.28/0.3'
0.04/1.2'
C-7
0.04/7.5'
tr./2.8'
tr.
tr./8.0'
SHERRITT GORDON MINES LIMITED
MINE CENTRE PROJECT
FOLEY PROPERTY
VEIN PLAN
1"= 50'
LEGEND
Unsampled Quartz veins
Quartz vein; Detailed mapping and sampling
Avg. AU oz/ton
Avg. vein width
DDH intersection; Quartz vein, vein material(shear zone?)


C-5
C-4
C-3
C-2
C-1a,b
Lucky Joe Vein
Daisy Vein?
0.38/1.6'
SHERRITT GORDON MINES LIMITED
MINE CENTRE PROJECT
FOLEY PROPERTY
VEIN PLAN
1"=50'
LEGEND
Unsampled Quartz veins
Quartz vein; Detailed mapping and sampling
Avg. AU oz/ton
Avg. vein width
DDH intersection; Quartz vein, vein material(shear zone?)




SHERRITT GORDON MINES LIMITED

MINE CENTRE PROJECT

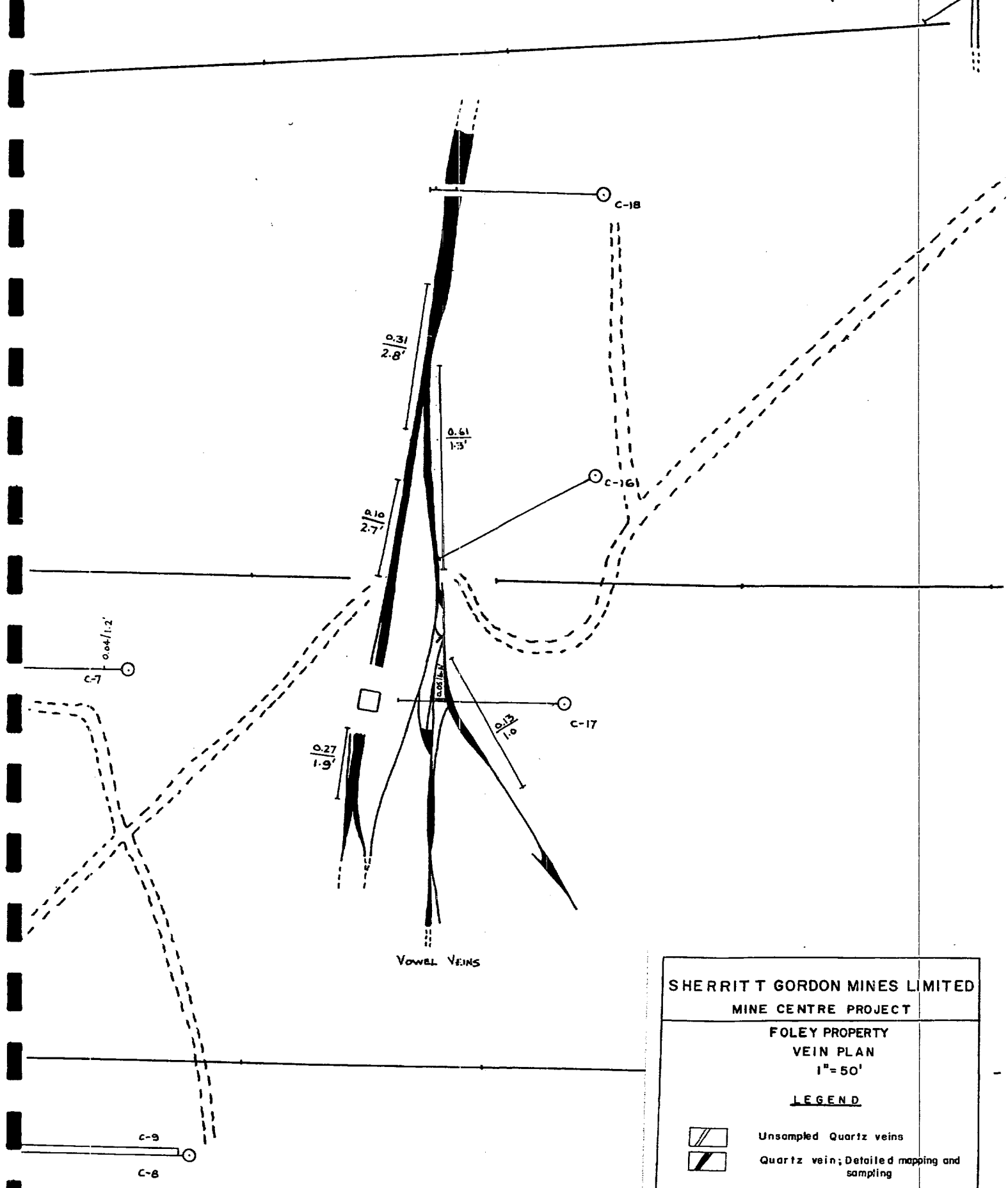
FOLEY PROPERTY

VEIN PLAN

1"= 50'

LEGEND

- Unsampled Quartz veins
- Quartz vein; Detailed mapping and sampling
- Avg. AU oz/ton / Avg. vein width
- DDH intersection; Quartz vein, vein material(shear zone?)




SHERRITT GORDON MINES LIMITED

MINE CENTRE PROJECT

FOLEY PROPERTY

VEIN PLAN

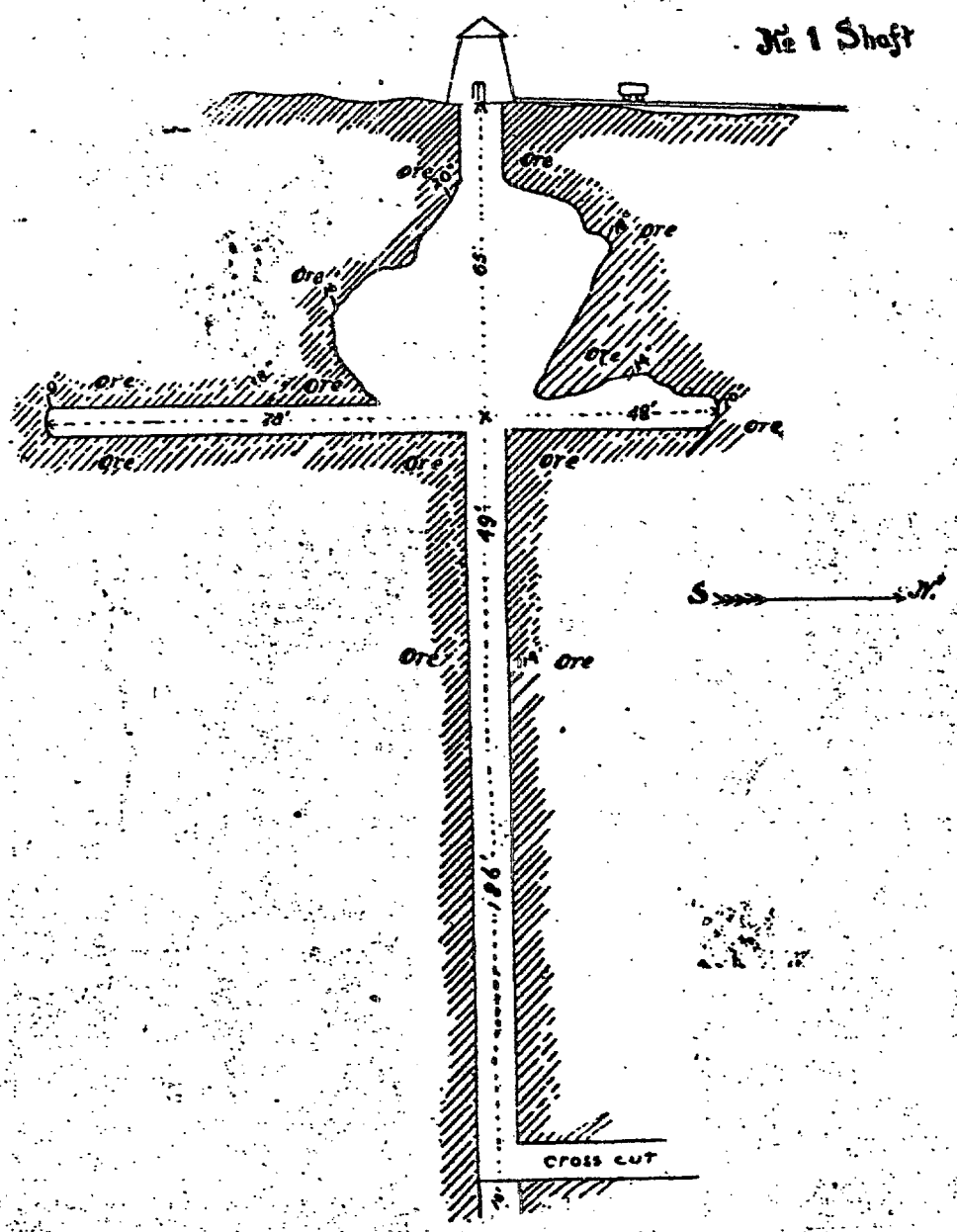
1"=50'

LEGEND

- Unsampled Quartz veins
- Quartz vein; Detailed mapping and sampling
- Avg. AU oz/ton / Avg. vein width
- DDH intersection; Quartz vein, vein material(shear zone?)

## APPENDIX D – UNDERGROUND MINE SECTIONS

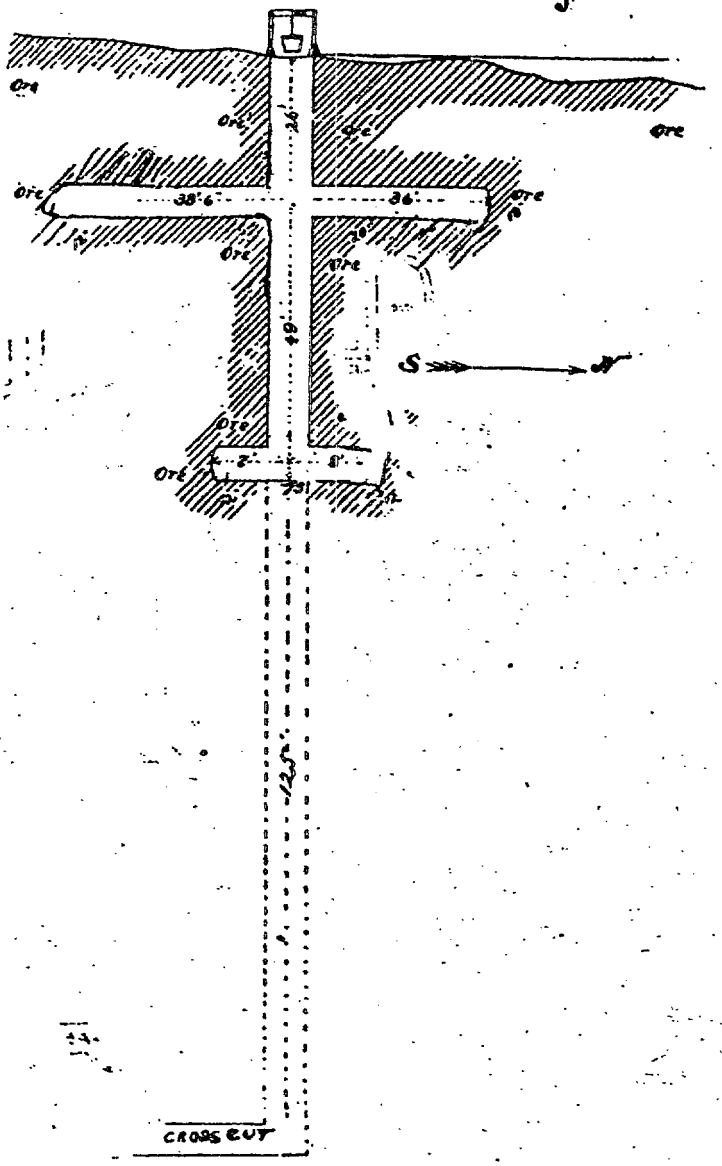
(From historical documents)


No 1 Shaft
ore
ore
ore
ore
ore
ore
ore
ore
ore
ore
ore
ore
ore
ore
ore
63'
70'
48'
49'
186'
S
N
cross cut

No. 1

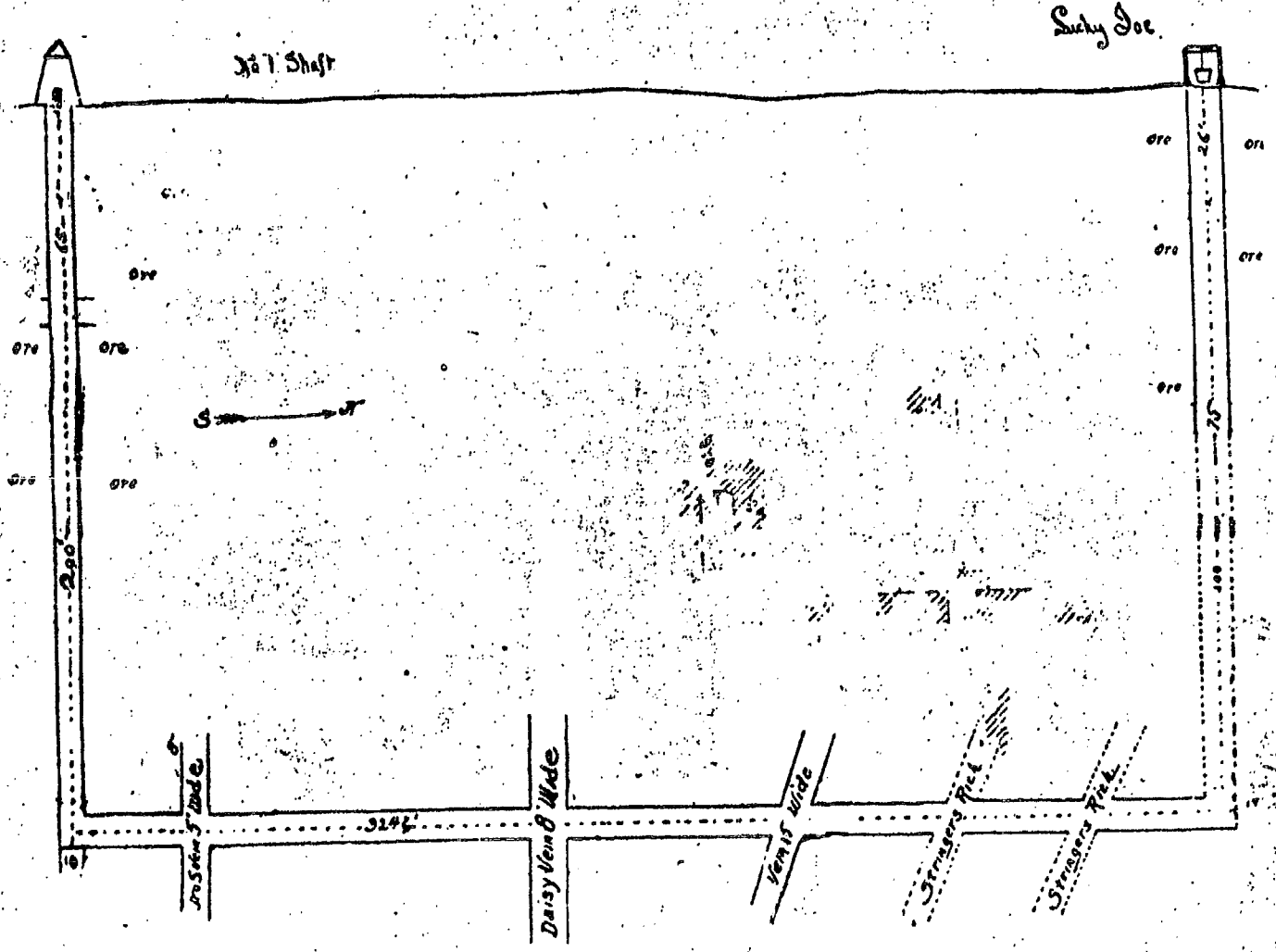
FOLEY

Lucky Joe



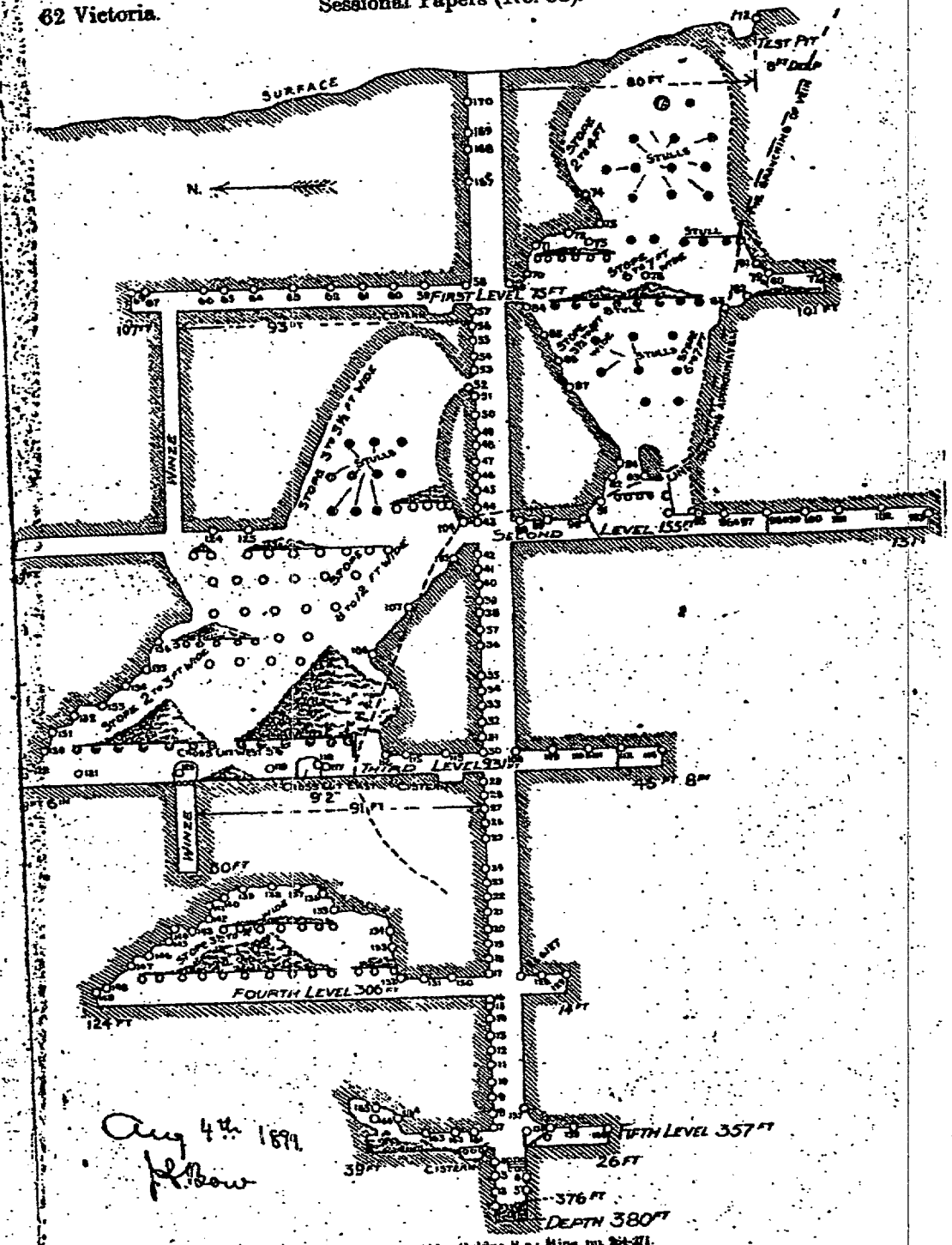

No. 3

FOLEY



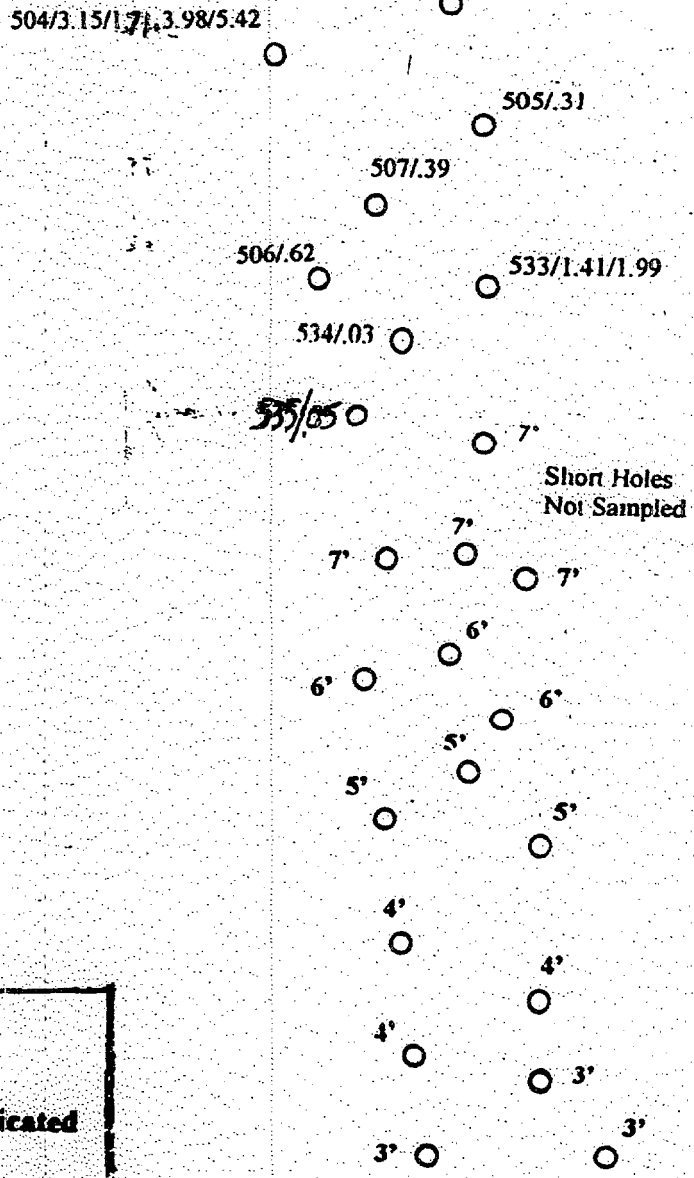

CROSSCUT No 2

FOLEY




Longitudinal section of the Golden Star Mine, pp. 264-271.

# APPENDIX E – PERCUSSION DRILL HOLE LAYOUT W/ ASSAYS, AND ASSAY CERTIFICATES, NUGGET & BASELINE VEINS



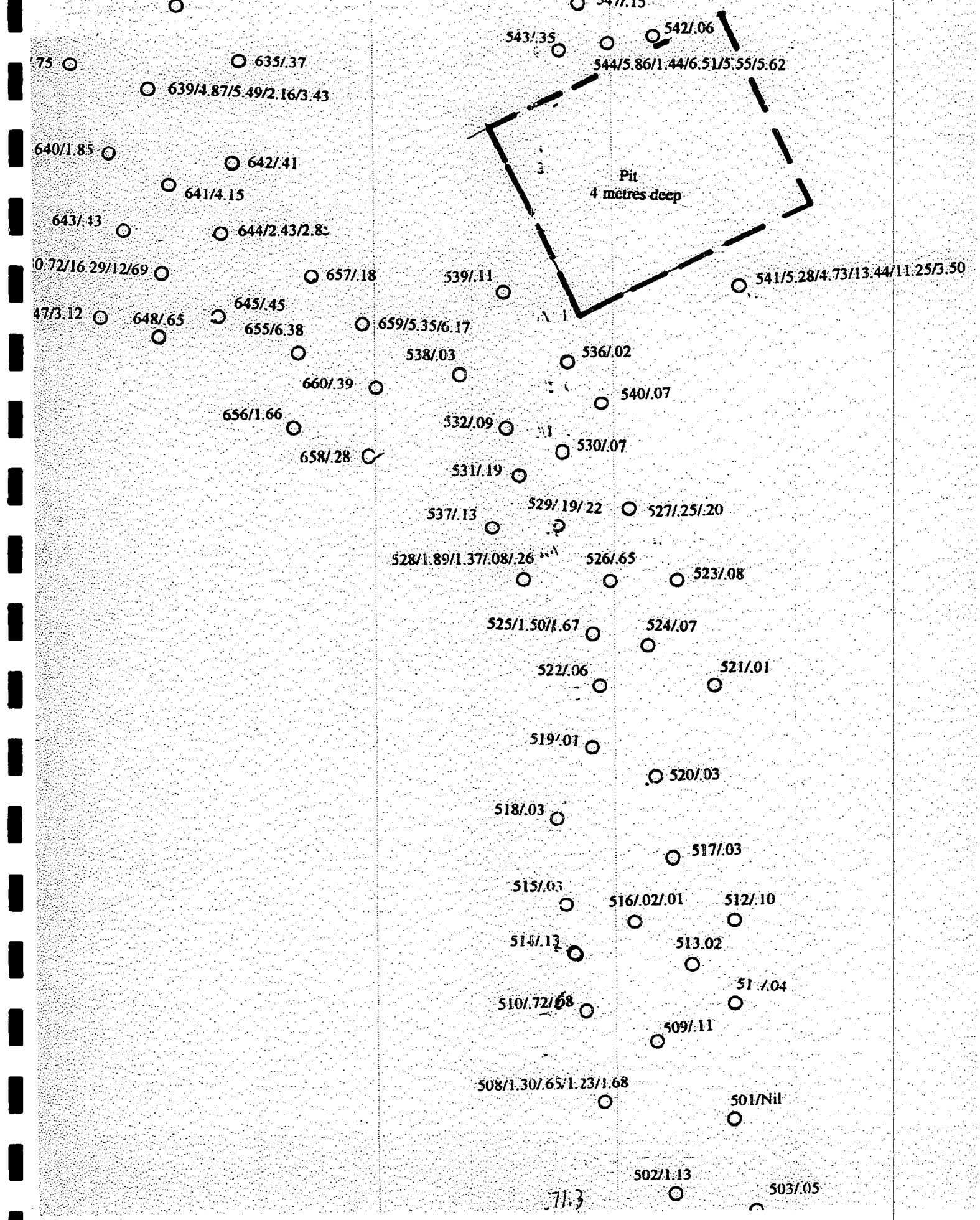

**Hole Number/Assay eg. 603/10.23** ○
**All assays in grams**
**All holes 12 feet deep unless otherwise indicated**
**All holes 2.5 inch diameter**

# HEXAGON GOLD (ONTARIO) LTD.

## PERCUSSION DRILL HOLE LAYOUT & ASSAYS

## NUGGET VEIN

**Scale 1 : 50** **April 8,2000**


547/.15
542/.06
543/.35
544/5.86/1.44/6.51/5.55/5.62
635/.37
639/4.87/5.49/2.16/3.43
640/1.85
642/.41
641/4.15
643/.43
644/2.43/2.8
Pit
4 metres deep
0.72/16.29/12/69
657/.18
539/.11
541/5.28/4.73/13.44/11.25/3.50
47/3.12
648/.65
645/.45
655/6.38
659/5.35/6.17
538/.03
536/.02
660/.39
540/.07
656/1.66
532/.09
530/.07
658/.28
531/.19
537/.13
529/.19/.22
527/.25/.20
528/1.89/1.37/.08/.26
526/.65
523/.08
525/1.50/1.67
524/.07
522/.06
521/.01
519/.01
520/.03
518/.03
517/.03
515/.03
516/.02/.01
512/.10
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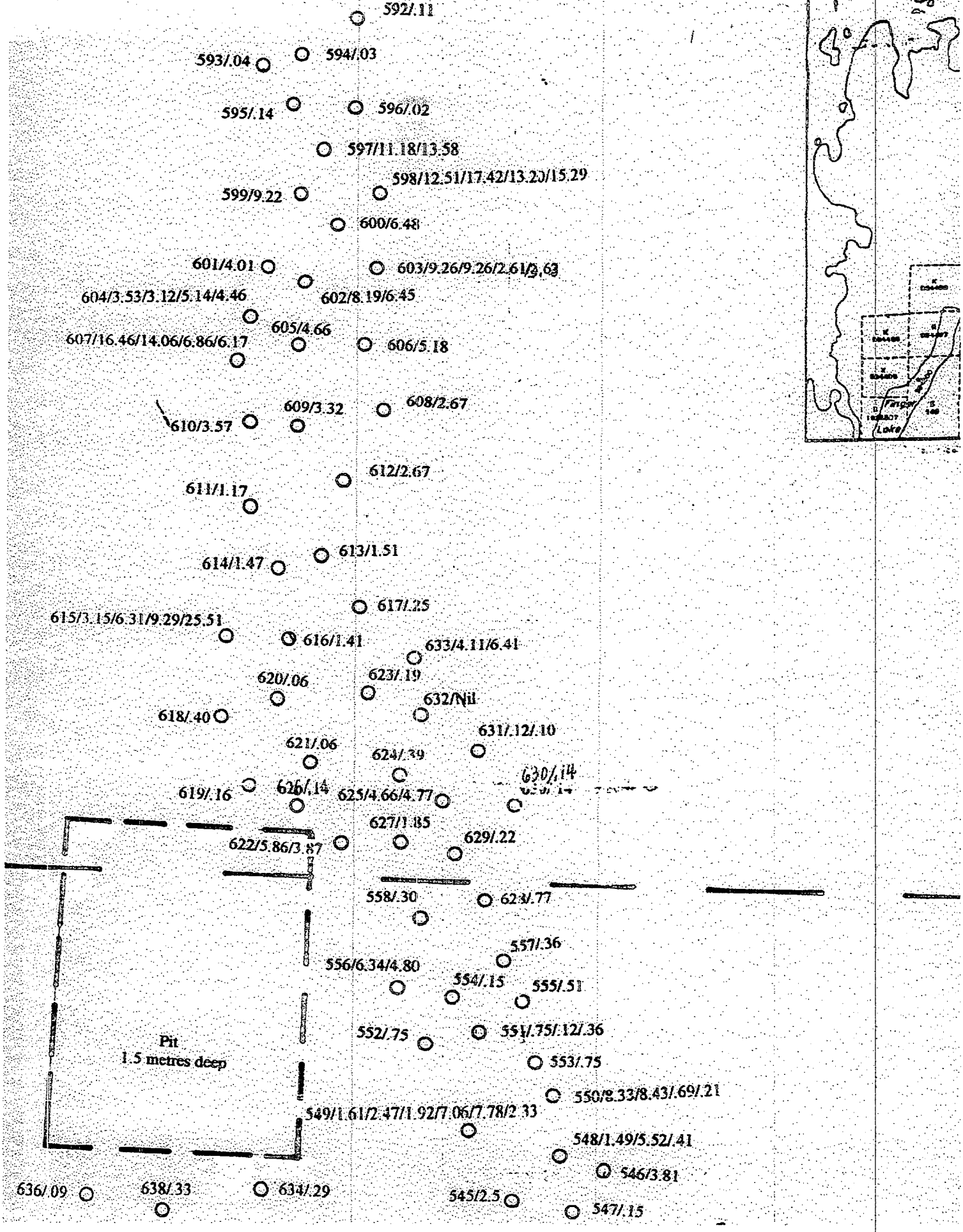
501/Nil
502/1.13
503/.05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593/.04
594/.03
595/.14
596/.02
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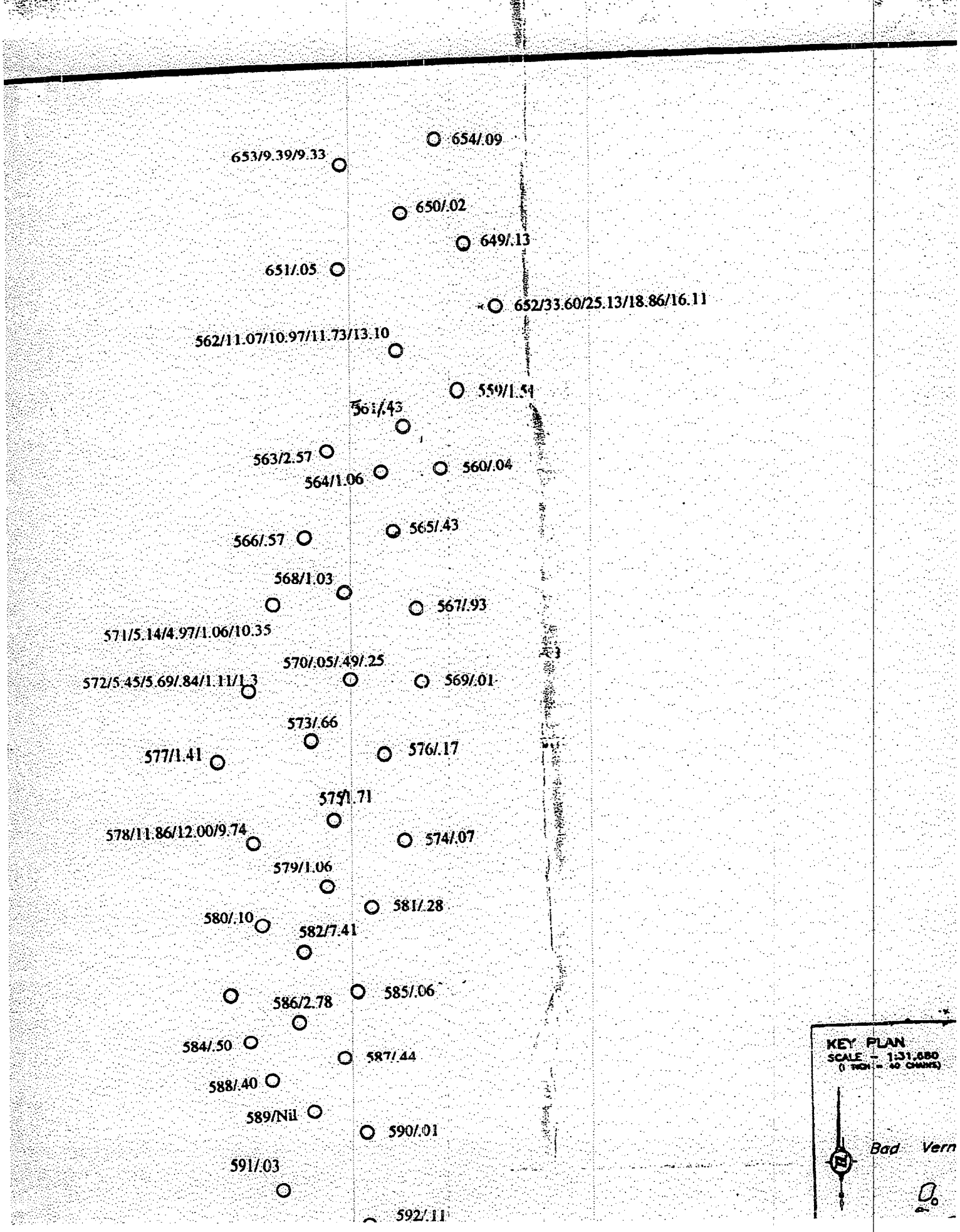
599/9.22
600/6.48
601/4.01
603/9.26/9.26/2.61/3.63
604/3.53/3.12/5.14/4.46
602/8.19/6.45
605/4.66
607/16.46/14.06/6.86/6.17
606/5.18
609/3.32
608/2.67
610/3.57
612/2.67
611/1.17
613/1.51
614/1.47
617/.25
615/3.15/6.31/9.29/25.51
616/1.41
633/4.11/6.41
620/.06
623/.19
632/Nil
618/.40
631/.12/.10
621/.06
624/.39
630/.14
619/.16
626/.14
625/4.66/4.77
627/1.85
629/.22
622/5.86/3.87
558/.30
623/.77
557/.36
556/6.34/4.80
554/.15
555/.51
552/.75
551/.75/.12/.36
Pit
1.5 metres deep
553/.75
550/8.33/8.43/.69/.21
549/1.61/2.47/1.92/7.06/7.78/2.33
548/1.49/5.52/.41
546/3.81
636/.09
638/.33
634/.29
545/2.5
547/.15


654/.09
653/9.39/9.33
650/.02
649/.13
651/.05
652/33.60/25.13/18.86/16.11
562/11.07/10.97/11.73/13.10
559/1.54
561/.43
563/2.57
564/1.06
560/.04
565/.43
566/.57
568/1.03
567/.93
571/5.14/4.97/1.06/10.35
570/.05/.49/.25
572/5.45/5.69/.84/1.11/1.3
569/.01
573/.66
577/1.41
576/.17
575/1.71
578/11.86/12.00/9.74
574/.07
579/1.06
581/.28
580/.10
582/7.41
585/.06
586/2.78
584/.50
587/.44
588/.40
589/Nil
590/.01
591/.03
592/.11
KEY PLAN
SCALE – 1:31,680
Bad
Vern

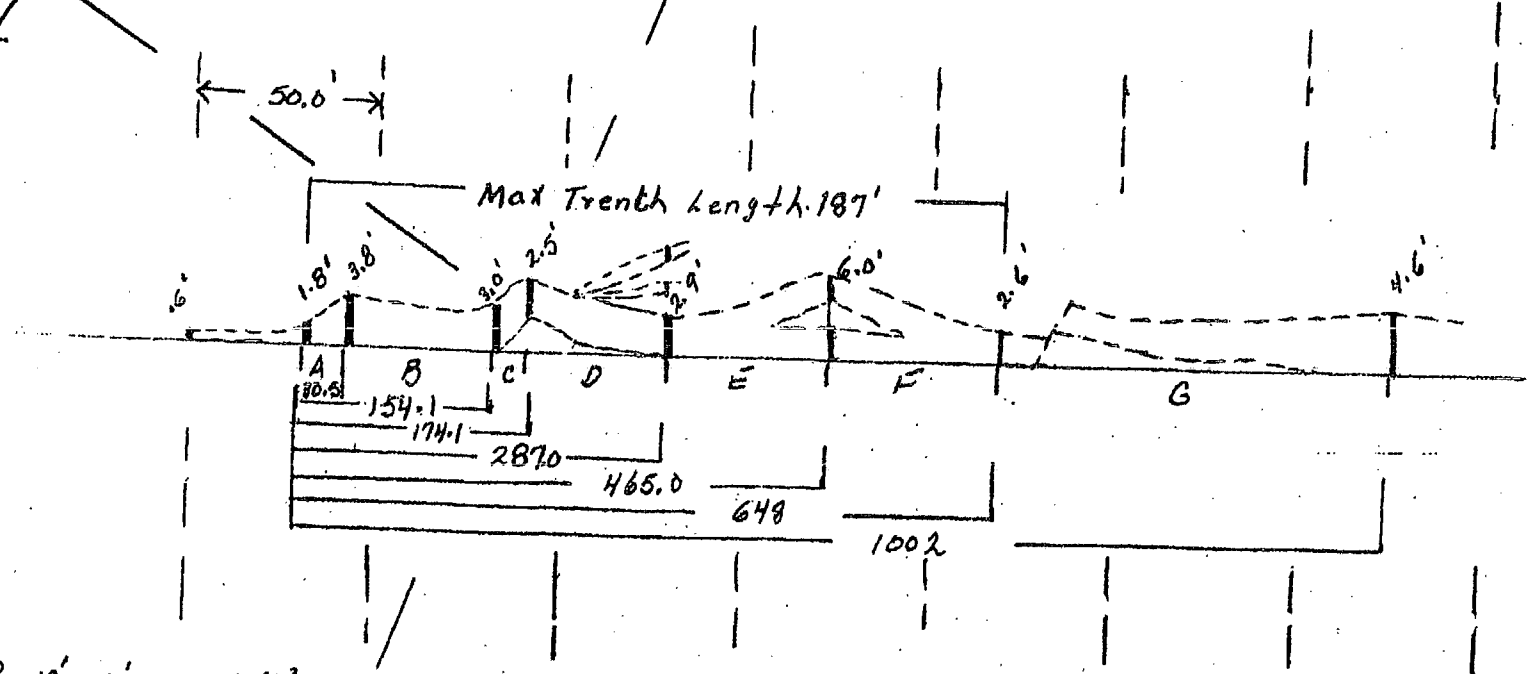
K 875547

K875544

Claim Line

#4-875544
#1-875547
220 m.

# Nugget Vein




$\frac{1.8+3.8}{2} \times 12' \times 10' = 336\ ft^3$

$\frac{3.8+3}{2} \times 40' \times 10' = 1360\ ft^3$

$\frac{3.0+2.5}{2} \times 8' \times 10' = 220\ ft^3$

$\frac{2.5+2.9}{2} \times 46' \times 10' = 1242\ ft^3$

$\frac{1.9+6}{2} \times 44' \times 10' = 1958\ ft^3$

F $\frac{6.0+2.6}{2} \times 48 \times 10 = 2016\ ft^3$

G $\frac{2.6+4.6}{2} \times 108 \times 10 = 3888\ ft^3$

$\frac{11020\ ft^3}{11\ ft^3/t} = 1,002$ tons.

Width ÷ x strike x depth ÷ tonnage factor.

Vein Width, 10.0' depth.
Tonnage Factor 11 cu ft/ton

Hexagon Gold (Ontario) Ltd
1" = 50'

C10 NE HHH-1

# Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation



0W-0991-RA1

## *Assay Certificate*

Company: **HEXAGON GOLD (ONTARIO) LTD**
Project: Nugget
Attn: J. Bulen

Date: APR-07-00

*We hereby certify* the following Assay of 35 Precussion Drill samples submitted MAR-31-00 by .

| Sample Number | Au g/tonne | Au Check g/tonne | Au 2nd g/tonne | Au Check g/tonne | Au 3rd g/tonne |
|---|---|---|---|---|---|
| 46501 | Nil | - | - | - | - |
| 46502 | 1.13 | - | - | - | - |
| 46503 | 0.05 | - | - | - | - |
| 46504 | 3.15 | 1.71 | 3.98 | 5.42 | - |
| 46505 | 0.31 | - | - | - | - |
| 46506 | 0.62 | - | - | - | - |
| 46507 | 0.39 | - | - | - | - |
| 46508 | 1.30 | 0.65 | 1.23 | 1.68 | - |
| 46509 | 0.11 | - | - | - | - |
| 46510 | 0.72 | 0.68 | - | - | - |
| 46511 | 0.04 | - | - | - | - |
| 46512 | 0.10 | - | - | - | - |
| 46513 | 0.02 | - | - | - | - |
| 46514 | 0.13 | - | - | - | - |
| 46515 | 0.03 | - | - | - | - |
| 46516 | 0.02 | 0.01 | - | - | - |
| 46517 | 0.03 | - | - | - | - |
| 46518 | 0.03 | - | - | - | - |
| 46519 | 0.01 | - | - | - | - |
| 46520 | 0.03 | - | - | - | - |
| 46521 | 0.01 | - | - | - | - |
| 46522 | 0.06 | - | - | - | - |
| 46523 | 0.08 | - | - | - | - |
| 46524 | 0.07 | - | - | - | - |
| 46525 | 1.50 | 1.67 | - | - | - |
| 46526 | 0.65 | - | - | - | - |
| 46527 | 0.25 | - | 0.20 | - | - |
| 46528 | 1.89 | 1.37 | 0.08 | - | 0.26 |
| 46529 | 0.19 | - | 0.22 | - | - |
| 46530 | 0.07 | - | - | - | - |

One assay ton portion used.

*Certified by* G. Gilbert

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

C10 NE HHN- 1

Established 1928

# Swastika Laboratories Ltd

Assaying - Consulting - Representation



## *Assay Certificate*

0W-0991-RA1

Company: **HEXAGON GOLD (ONTARIO) LTD**
Project: Nugget
Attn: J. Bolen

Date: APR-07-00

*We hereby certify* the following Assay of 35 Precussion Drill samples submitted MAR-31-00 by .

| Sample Number | Au g/tonne | Au Check g/tonne | Au 2nd g/tonne | Au Check g/tonne | Au 3rd g/tonne |
|---|---|---|---|---|---|
| 46531 | 0.19 | - | - | - | - |
| 46532 | 0.09 | - | - | - | - |
| 46533 | 1.41 | 1.99 | - | - | - |
| 46534 | 0.03 | - | - | - | - |
| 46535 | 0.05 | - | - | - | - |
| Blank | Nil | - | - | - | - |
| SID TT-23 | 0.63 | - | - | - | - |

One assay ton portion used.

*Certified by* G. Gelmon

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Telephone (705) 642-3244 Fax (705) 642-3300

# Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation



## *Assay Certificate*

**0W-1023-RA1**

Company: **HEXAGON GOLD (ONTARIO) LTD**
Project: Nugget
Attn: J. Bolen

Date: APR-07-00

*We hereby certify* the following Assay of 37 Percussion Drill samples submitted APR-03-00 by .

| Sample Number | Au g/tonne | Au Check g/tonne | Au Check g/tonne | Au 2nd g/tonne | Au Check g/tonne | Au 3rd g/tonne |
|---|---|---|---|---|---|---|
| 46536 | 0.02 | - | - | - | - | - |
| 46537 | 0.13 | - | - | - | - | - |
| 46538 | 0.03 | - | - | - | - | - |
| 46539 | 0.11 | - | - | - | - | - |
| 46540 | 0.07 | - | - | - | - | - |
| 46541 | 5.28 | 4.73 | 13.44 | 11.25 | 3.50 | - |
| 46542 | 0.06 | - | - | - | - | - |
| 46543 | 0.35 | - | - | - | - | - |
| 46544 | 5.86 | 1.44 | 6.51 | 5.55 | 5.62 | - |
| 46545 | 2.50 | - | - | - | - | - |
| 46546 | 3.81 | - | - | - | - | - |
| 46547 | 0.15 | - | - | - | - | - |
| 46548 | 1.49 | - | - | 5.52 | 0.41 | - |
| 46549 | 1.61 | 2.47 | 1.92 | 7.06 | 7.78 | 2.33 |
| 46550 | 8.33 | 8.43 | - | 0.69 | 0.21 | - |
| 46551 | 0.75 | - | - | 0.12 | 0.36 | - |
| 46552 | 0.75 | - | - | - | - | - |
| 46553 | 0.38 | - | - | - | - | - |
| 46554 | 0.15 | - | - | - | - | - |
| 46555 | 0.51 | - | - | - | - | - |
| 46556 | 6.34 | 4.80 | - | - | - | - |
| 46557 | 0.36 | - | - | - | - | - |
| 46558 | 0.30 | - | - | - | - | - |
| 46559 | 1.51 | - | - | - | - | - |
| 46560 | 0.04 | - | - | - | - | - |
| 46561 | 0.43 | - | - | - | - | - |
| 46562 | 11.07 | 10.97 | - | 11.73 | 13.10 | - |
| 46563 | 2.57 | - | - | - | - | - |
| 46564 | 1.06 | - | - | - | - | - |
| 46565 | 0.43 | - | - | - | - | - |

One assay ton portion used.

*Certified by* G. Gilbert

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

# Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation



## *Assay Certificate*

**0W-1023-RA1**

Company: **HEXAGON GOLD (ONTARIO) LTD** Date: APR-07-00

Project: Nugget

Attn: J. Bolen

*We hereby certify* the following Assay of 37 Percussion Drill samples submitted APR-03-00 by .

| Sample Number | Au g/tonne | Au Check g/tonne | Au Check g/tonne | Au 2nd g/tonne | Au Check g/tonne | Au 3rd g/tonne |
|---|---|---|---|---|---|---|
| 46566 | 0.57 | - | - | - | - | - |
| 46567 | 0.93 | - | - | - | - | - |
| 46568 | 1.03 | - | - | - | - | - |
| 46569 | 0.01 | - | - | - | - | - |
| 46570 | 0.05 | - | - | 0.49 | 0.25 | - |
| 46571 | 5.14 | 4.97 | - | 1.06 | 10.35 | - |
| 46572 | 5.45 | 5.69 | - | 0.84 | 1.11 | 1.30 |
| Blank | Nil | - | - | - | - | - |
| STD TT-23 | 0.68 | - | - | - | - | - |

One assay ton portion used.

*Certified by* G. Gilbert

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

# Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation



## *Assay Certificate*

OW-1029-RA1

Company: **HEXAGON GOLD (ONTARIO) LTD**
Project: Nugget
Attn: J. Bolen

Date: APR-07-00

*We hereby certify* the following Assay of 42 Percussion Drill samples submitted APR-03-00 by .

| Sample Number | Au g/tonne | Au Check g/tonne | Au 2nd g/tonne | Au Check g/tonne |
|---|---|---|---|---|
| 46573 | 0.66 | - | - | - |
| 46574 | 0.07 | - | - | - |
| 46575 | 1.71 | - | - | - |
| 46576 | 0.17 | - | - | - |
| 46577 | 1.41 | - | - | - |
| 46578 | 11.86 | 12.00 | 9.74 | - |
| 46579 | 1.06 | - | - | - |
| 46580 | 0.10 | - | - | - |
| 46581 | 0.28 | - | - | - |
| 46582 | 7.41 | - | - | - |
| 46583 | 6.41 | 5.49 | 6.54 | - |
| 46584 | 0.50 | - | - | - |
| 46585 | 0.06 | - | - | - |
| 46586 | 2.78 | - | - | - |
| 46587 | 0.44 | - | - | - |
| 46588 | 0.40 | - | - | - |
| 46589 | Nil | - | - | - |
| 46590 | 0.01 | - | - | - |
| 46591 | 0.03 | - | - | - |
| 46592 | 0.11 | - | - | - |
| 46593 | 0.04 | - | - | - |
| 46594 | 0.03 | - | - | - |
| 46595 | 0.14 | - | - | - |
| 46596 | 0.02 | - | - | - |
| 46597 | 11.18 | 13.58 | - | - |
| 46598 | 12.51 | 17.42 | 13.20 | 15.29 |
| 46599 | 9.22 | - | - | - |
| 46600 | 6.48 | - | - | - |
| 46601 | 4.01 | - | - | - |
| 46602 | 8.19 | - | 6.45 | - |

One assay ton portion used.

*Certified by* G. Leboss

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

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Established 1928

# Swastika Laboratories Ltd

Assaying - Consulting - Representation



## *Assay Certificate*

0W-1029-RA1

Company: **HEXAGON GOLD (ONTARIO) LTD**
Project: Nugget
Attn: J. Bolen

Date: APR-07-00

*We hereby certify* the following Assay of 42 Percussion Drill samples submitted APR-03-00 by .

| Sample Number | Au g/tonne | Au Check g/tonne | Au 2nd g/tonne | Au Check g/tonne |
|---|---|---|---|---|
| 46603 | 13.44 | 9.26 | 2.61 | 3.63 |
| 46604 | 3.53 | 3.12 | 5.14 | 4.46 |
| 46605 | 4.66 | - | - | - |
| 46606 | 5.18 | - | - | - |
| 46607 | 16.46 | 14.06 | 6.86 | 6.17 |
| 46608 | 2.67 | - | - | - |
| 46609 | 3.32 | - | - | - |
| 46610 | 3.57 | - | - | - |
| 46611 | 1.17 | - | - | - |
| 46612 | 2.67 | - | - | - |
| 46613 | 1.51 | - | - | - |
| 46614 | 1.47 | - | - | - |
| Blank | Nil | - | - | - |
| STD TT-23 | 0.62 | - | - | - |

One assay ton portion used.

*Certified by* G. Leboe

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

# Swastika Laboratories Ltd

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## *Assay Certificate*

0W-1039-RA1

Company: **HEXAGON GOLD (ONTARIO) LTD**
Project: Nugget
Attn: J. Bolen

Date: APR-10-00

*We hereby certify* the following Assay of 46 Percussion Drill samples submitted APR-04-00 by .

| Sample Number | Au g/tonne | Au Check g/tonne | Au 2nd g/tonne | Au Check g/tonne |
|---|---|---|---|---|
| 46614 * | - | - | - | - |
| 46615 | 3.15 | 6.31 | 9.29 | 25.51 |
| 46616 | 1.41 | - | - | - |
| 46617 | 0.25 | - | - | - |
| 46618 | 0.40 | - | - | - |
| 46619 | 0.16 | - | - | - |
| 46620 | 0.06 | - | - | - |
| 46621 | 5.86 | 3.87 | - | - |
| 46622 | 0.25 | - | - | - |
| 46623 | 0.19 | - | - | - |
| 46624 | 0.39 | - | - | - |
| 46625 | 4.66 | 4.77 | - | - |
| 46626 | 0.14 | - | - | - |
| 46627 | 1.85 | - | - | - |
| 46628 | 0.77 | - | - | - |
| 46629 | 0.22 | - | - | - |
| 46630 | 0.14 | - | - | - |
| 46631 | 0.12 | 0.10 | - | - |
| 46632 | Nil | - | - | - |
| 46633 | 4.11 | 6.41 | - | - |
| 46634 | 0.29 | - | - | - |
| 46635 | 0.37 | - | - | - |
| 46636 | 0.09 | - | - | - |
| 46637 | 0.75 | - | - | - |
| 46638 | 0.33 | - | - | - |
| 46639 | 4.87 | 5.49 | 2.16 | 3.43 |
| 46640 | 1.85 | - | - | - |
| 46641 | 4.15 | - | - | - |
| 46642 | 0.41 | - | - | - |
| 46643 | 0.27 | - | - | - |

One assay ton portion used.
* Indicates where sample was received previously.

*Certified by* G. Clark

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

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Established 1928

# Swastika Laboratories Ltd

Assaying - Consulting - Representation



## *Assay Certificate*

0W-1039-RA1

Company: **HEXAGON GOLD (ONTARIO) LTD**
Project: Nugget
Attn: J. Bolen

Date: APR-10-00

*We hereby certify* the following Assay of 46 Percussion Drill samples submitted APR-04-00 by .

| Sample Number | Au g/tonne | Au Check g/tonne | Au 2nd g/tonne | Au Check g/tonne |
|---|---|---|---|---|
| 46644 | 2.43 | 2.85 | - | - |
| 46645 | 0.41 | - | - | - |
| 46646 | 28.25 | 30.72 | 16.29 | 12.69 |
| 46647 | 3.12 | - | - | - |
| 46648 | 0.65 | - | - | - |
| 46649 | 0.13 | - | - | - |
| 46650 | 0.02 | - | - | - |
| 46651 | 0.05 | - | - | - |
| 46652 | 33.60 | 25.13 | 18.86 | 16.11 |
| 46653 | 9.39 | 9.33 | - | - |
| 46654 | 0.09 | - | - | - |
| 46655 | 6.38 | - | - | - |
| 46656 | 1.66 | - | - | - |
| 46657 | 0.18 | - | - | - |
| 46658 | 0.28 | - | - | - |
| 46659 | 5.35 | 6.17 | - | - |
| 46660 | 0.39 | - | - | - |

One assay ton portion used.
* Indicates where sample was received previously.

*Certified by* _____

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 Fax (705) 642-3300

Swastika Laboratories Ltd.
1 Cameron Ave., Swastika, Ontario, P0K 1T0
Tel: (705) 642-3244 Fax: (705) 642-3300

EXAGON GOLD (ONTARIO) LTD
ention: J. Bolen
ject:
nple: Percussion Drill

Report No : 0W1124 RJ
Date : Apr-19-00

# MULTI-ELEMENT ICP ANALYSIS

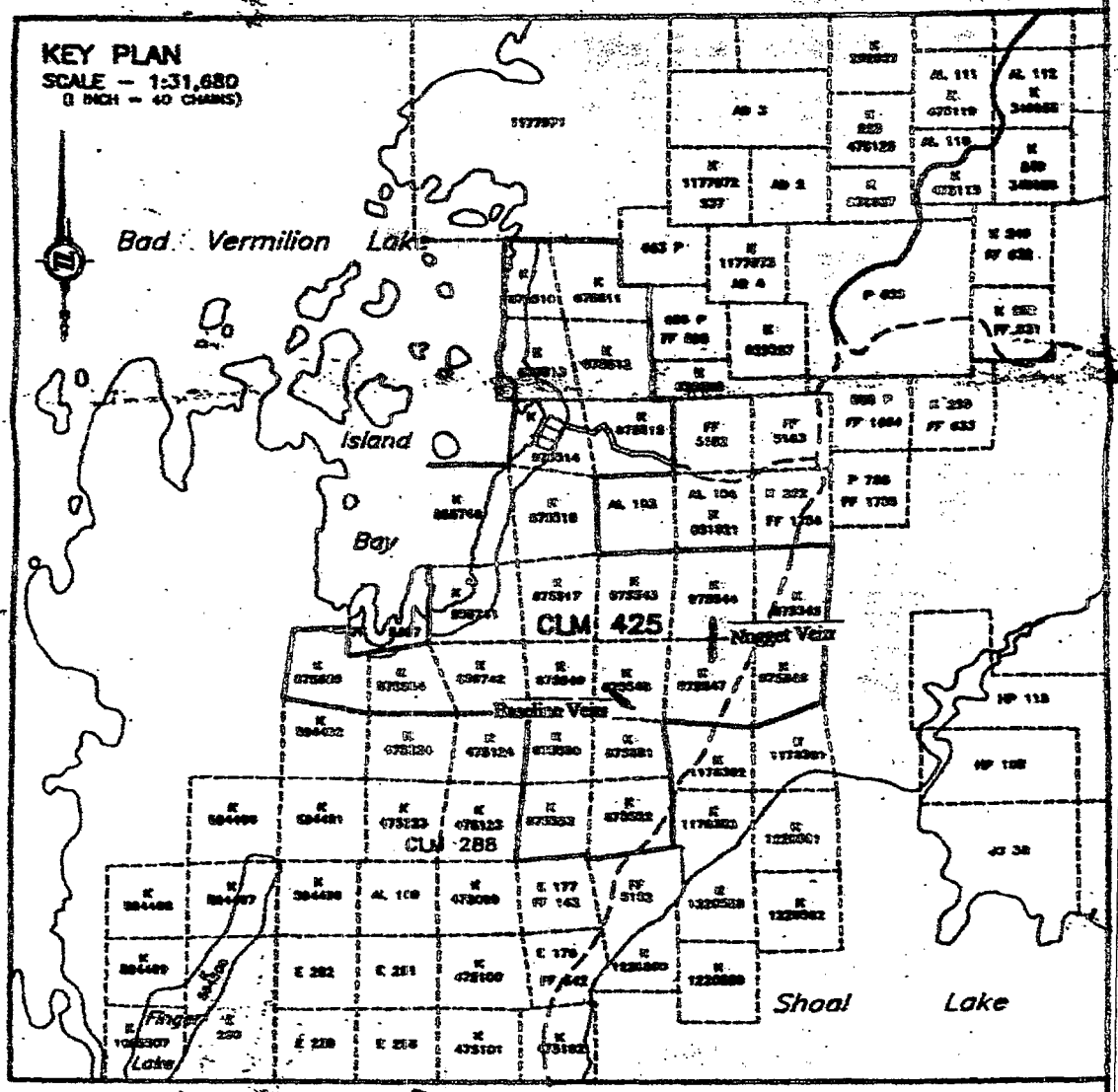
## Aqua Regia Digestion

| nple nber | Ag ppm | Al % | As ppm | Ba ppm | Be ppm | Bi ppm | Ca % | Cd ppm | Co ppm | Cr ppm | Cu ppm | Fe % | K % | Mg % | Mn ppm | Mo ppm | Na % | Ni ppm | P ppm | Pb ppm | Sb ppm | Sc ppm | Sn ppm | Sr ppm | Ti % | V ppm | W ppm | Y ppm | Zn ppm | Zr ppm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 52 | 24.8 | 0.16 | 25 | 20 | <0.5 | 65 | 0.44 | 35 | 23 | 220 | 94 | 1.76 | 0.10 | 0.10 | 140 | 2 | 0.01 | 12 | 230 | 2846 | <5 | <1 | <10 | 18 | <0.01 | 5 | 10 | 1 | 4835 | 1 |
| 07 | 17.0 | 0.08 | 10 | 10 | <0.5 | 15 | 0.32 | 10 | 22 | 466 | 26 | 1.43 | 0.07 | 0.07 | 105 | 2 | 0.01 | 12 | 160 | 614 | 5 | <1 | <10 | 11 | <0.01 | 7 | <10 | 1 | 1321 | 1 |
| 39 | 4.8 | 0.12 | 35 | 20 | <0.5 | 15 | 0.23 | <1 | 15 | 386 | 19 | 0.73 | 0.10 | 0.06 | 105 | 2 | 0.01 | 10 | 170 | 398 | 5 | <1 | <10 | 10 | <0.01 | 7 | <10 | 1 | 231 | 1 |
| 08 | 4.4 | 0.17 | <5 | 30 | <0.5 | 15 | 0.67 | 8 | 15 | 394 | 12 | 0.94 | 0.15 | 0.14 | 205 | 6 | 0.01 | 12 | 270 | 634 | 5 | <1 | <10 | 28 | <0.01 | 7 | <10 | 2 | 336 | 1 |
| 64 | 35.8 | 0.09 | 10 | 10 | <0.5 | 105 | 0.39 | 36 | 31 | 489 | 79 | 1.54 | 0.08 | 0.10 | 125 | 2 | 0.01 | 15 | 150 | 3180 | 5 | <1 | <10 | 13 | <0.01 | 8 | 10 | 1 | 4940 | 1 |
| 15 | 6.2 | 0.16 | 10 | 20 | <0.5 | 20 | 0.97 | 14 | 28 | 382 | 162 | 1.85 | 0.12 | 0.08 | 140 | 2 | 0.01 | 17 | 210 | 912 | 5 | <1 | <10 | 12 | <0.01 | 8 | <10 | 1 | 1892 | 1 |
| 46 | 18.6 | 0.10 | 110 | 20 | <0.5 | 10 | 0.28 | 5 | 17 | 343 | 42 | 2.24 | 0.07 | 0.07 | 105 | <2 | 0.01 | 10 | 170 | 512 | 5 | <1 | <10 | 10 | <0.01 | 7 | <10 | 1 | 1542 | 1 |
| 02 | 3.8 | 0.23 | <5 | 30 | <0.5 | 10 | 0.87 | 6 | 16 | 521 | 12 | 1.19 | 0.16 | 0.23 | 270 | <2 | 0.02 | 14 | 340 | 572 | 5 | <1 | <10 | 33 | 0.01 | 11 | <10 | 3 | 684 | 1 |
| 72 | 16.6 | 0.08 | <5 | 10 | <0.5 | 50 | 0.24 | 12 | 23 | 592 | 55 | 0.98 | 0.07 | 0.05 | 100 | 10 | 0.01 | 14 | 120 | 1428 | 5 | <1 | <10 | 7 | <0.01 | 10 | <10 | 1 | 1554 | 1 |
| 16 | 3.6 | 0.15 | <5 | 20 | <0.5 | 10 | 0.82 | 5 | 14 | 282 | 117 | 1.15 | 0.12 | 0.16 | 210 | 2 | 0.01 | 10 | 300 | 592 | 5 | <1 | <10 | 25 | <0.01 | 6 | <10 | 2 | 1629 | 1 |
| 39 | 1.0 | 0.17 | 5 | 20 | <0.5 | 5 | 0.41 | 1 | 14 | 280 | 87 | 0.90 | 0.14 | 0.10 | 135 | <2 | 0.01 | 12 | 300 | 106 | 5 | <1 | <10 | 13 | <0.01 | 5 | <10 | 3 | 141 | 1 |
| 86 | 0.8 | 0.20 | <5 | 30 | <0.5 | 5 | 0.57 | 3 | 12 | 244 | 19 | 1.03 | 0.14 | 0.15 | 205 | <2 | 0.01 | 10 | 340 | 102 | <5 | <1 | <10 | 20 | <0.01 | 6 | <10 | 2 | 413 | 1 |
| 56 | 1.8 | 0.14 | <5 | 20 | <0.5 | 10 | 0.70 | 7 | 34 | 382 | 38 | 2.06 | 0.11 | 0.16 | 210 | 4 | 0.01 | 13 | 250 | 226 | 5 | <1 | <10 | 25 | <0.01 | 7 | <10 | 2 | 855 | 1 |
| 29 | 0.6 | 0.21 | <5 | 30 | <0.5 | 5 | 0.67 | 1 | 15 | 327 | 18 | 1.10 | 0.16 | 0.19 | 230 | <2 | 0.01 | 11 | 330 | 112 | 5 | <1 | <10 | 28 | <0.01 | 7 | <10 | 3 | 126 | 1 |
| 98 | 15.2 | 0.21 | 20 | 30 | <0.5 | 50 | 0.87 | 20 | 25 | 231 | 14 | 2.89 | 0.16 | 0.20 | 200 | <2 | 0.02 | 12 | 340 | 1552 | <5 | <1 | <10 | 33 | <0.01 | 6 | 10 | 2 | 2707 | 1 |
| 49 | 5.2 | 0.10 | <5 | 20 | <0.5 | 15 | 0.32 | 5 | 25 | 636 | 37 | 1.13 | 0.08 | 0.08 | 125 | 2 | 0.01 | 15 | 170 | 422 | 10 | <1 | <10 | 12 | <0.01 | 11 | <10 | 1 | 589 | 1 |
| 25 | 16.4 | 0.18 | 10 | 20 | <0.5 | 55 | 0.62 | 4 | 43 | 391 | 85 | 2.90 | 0.12 | 0.18 | 205 | <2 | 0.01 | 20 | 270 | 1480 | 5 | <1 | <10 | 25 | <0.01 | 9 | <10 | 2 | 568 | 1 |

A .5 gm sample is digested with 10 ml 3:1 HCl/HNO3 at 95c for 2 hours and diluted to 25ml with D.I.H2O.



Signed:




PLAN AND FIELD NOTES OF
PERIMETER SURVEY

# CLM 425

COMPRISING MINING CLAIMS

K 855740 TO K 855742, BOTH INCLUSIVE,
K 875510 TO K 875517, BOTH INCLUSIVE
AND
K 875543 TO K 875555, BOTH INCLUSIVE

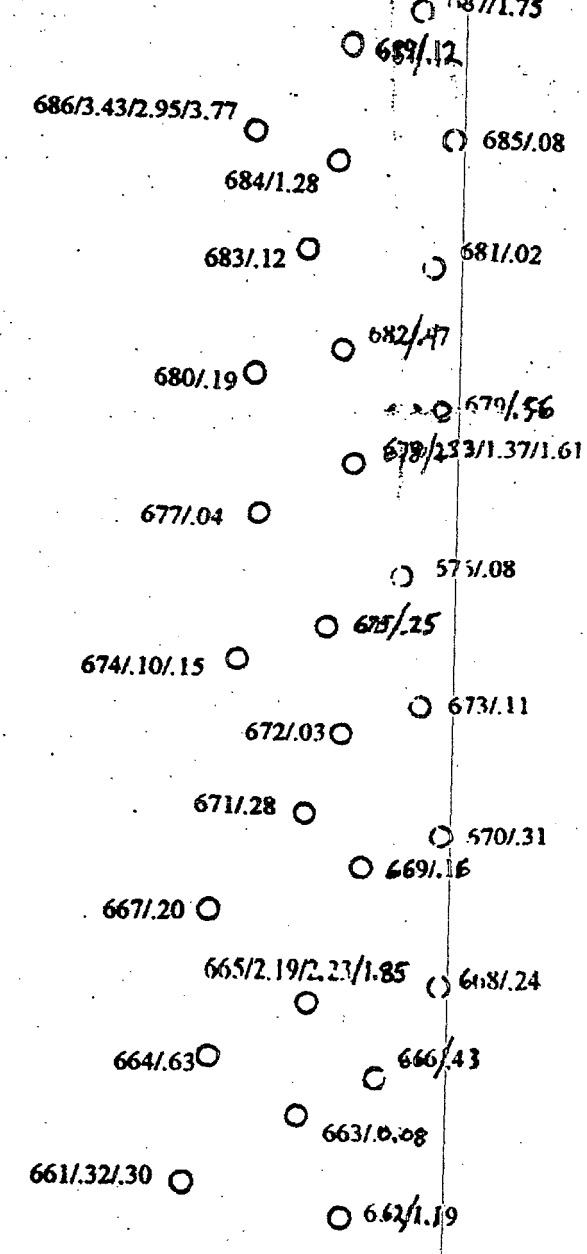
IN THE

## BAD VERMILION LAKE AREA

52C/10NE HHH-1

W0010.00077

2.20538




**Hole Number/Assay eg. 603/10.23**
**All assays in grams**
**All holes 12 feet deep unless otherwise indicated**
**All holes 2.5 inch diameter**

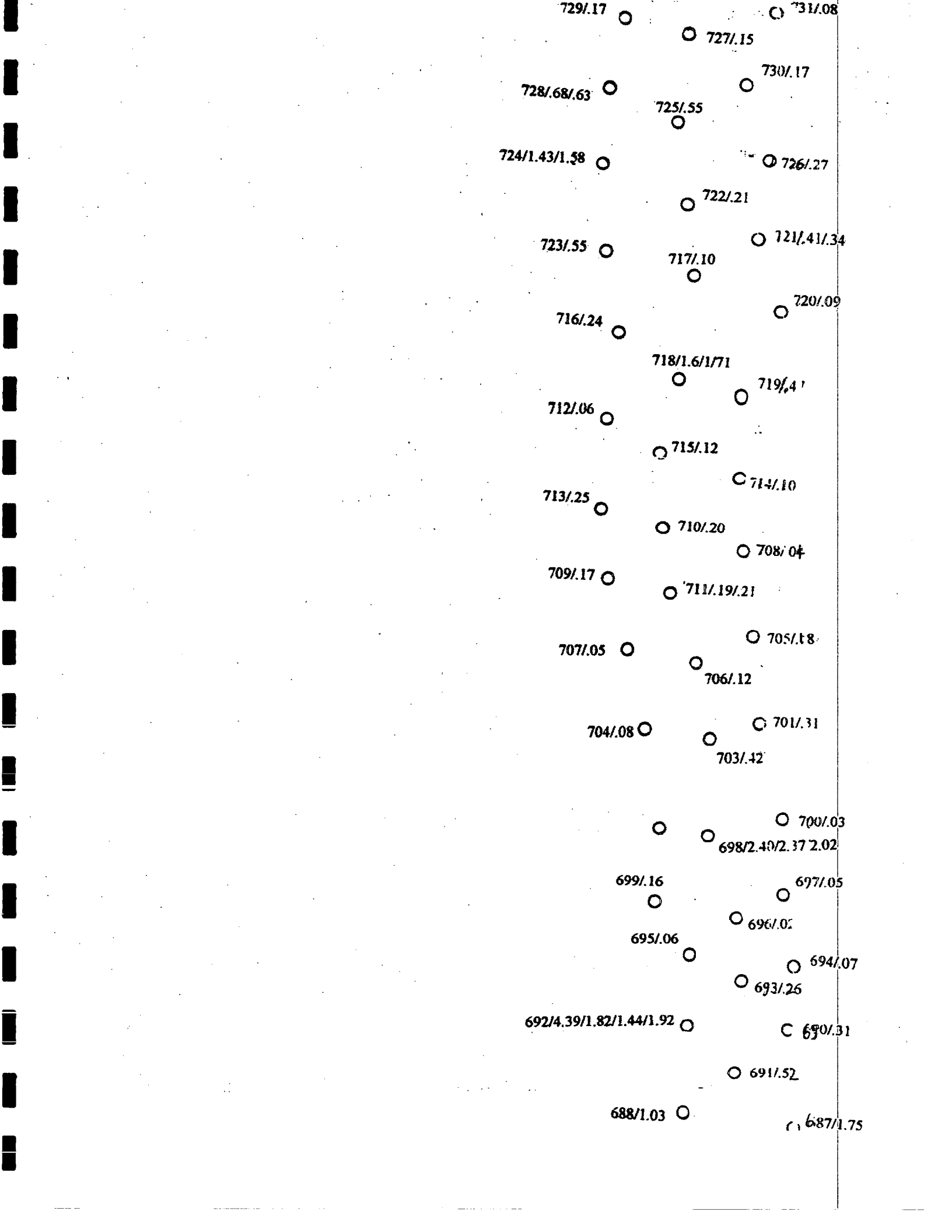
# HEXAGON GOLD (ONTARIO) LTD.

## PERCUSSION DRILL HOLES & ASSAYS'S

## BASELINE VEIN

Scale 1 : 50

April 20, 2000


729/.17
731/.08
727/.15
730/.17
728/.68/.63
725/.55
724/1.43/1.58
726/.27
722/.21
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699/.16
697/.05
696/.02
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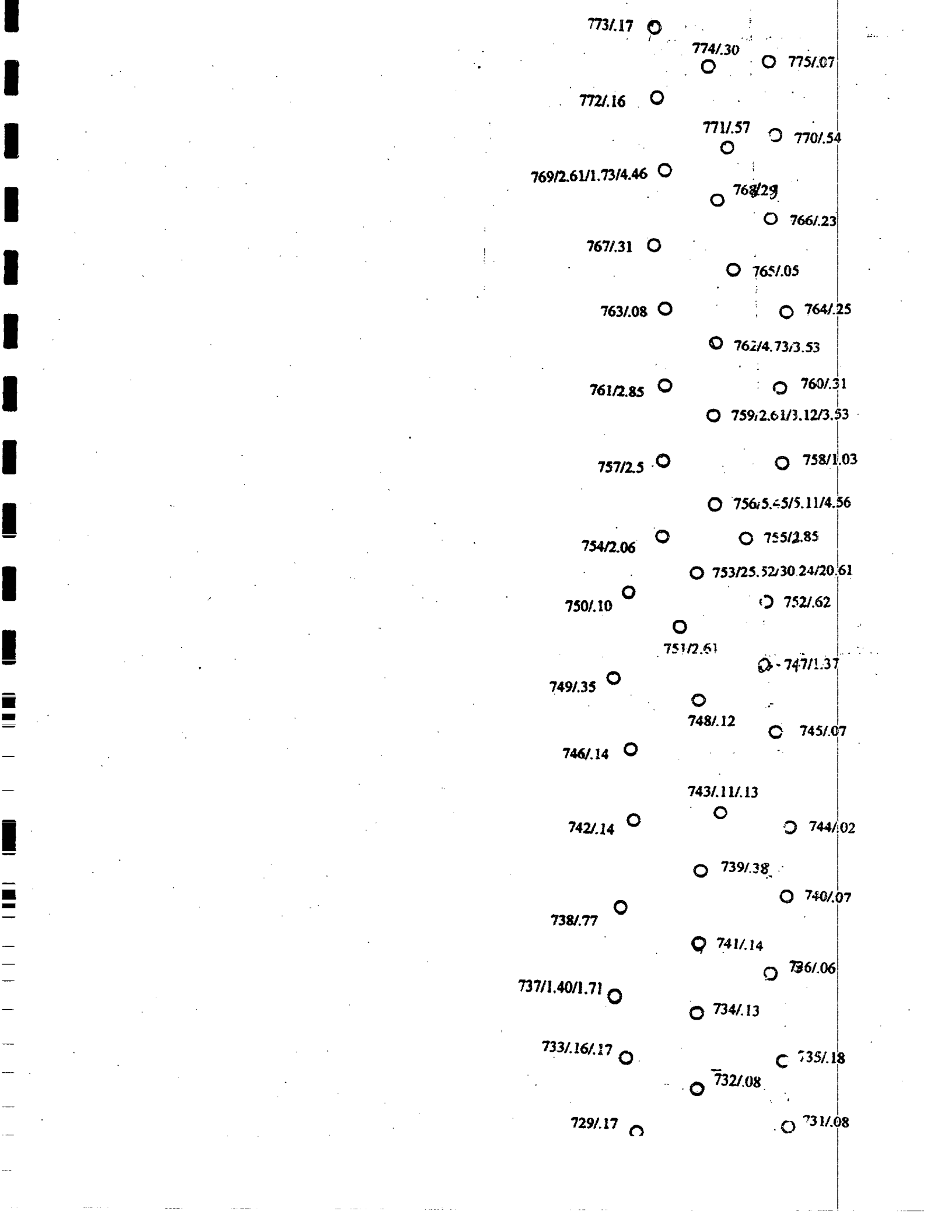
688/1.03
687/1.75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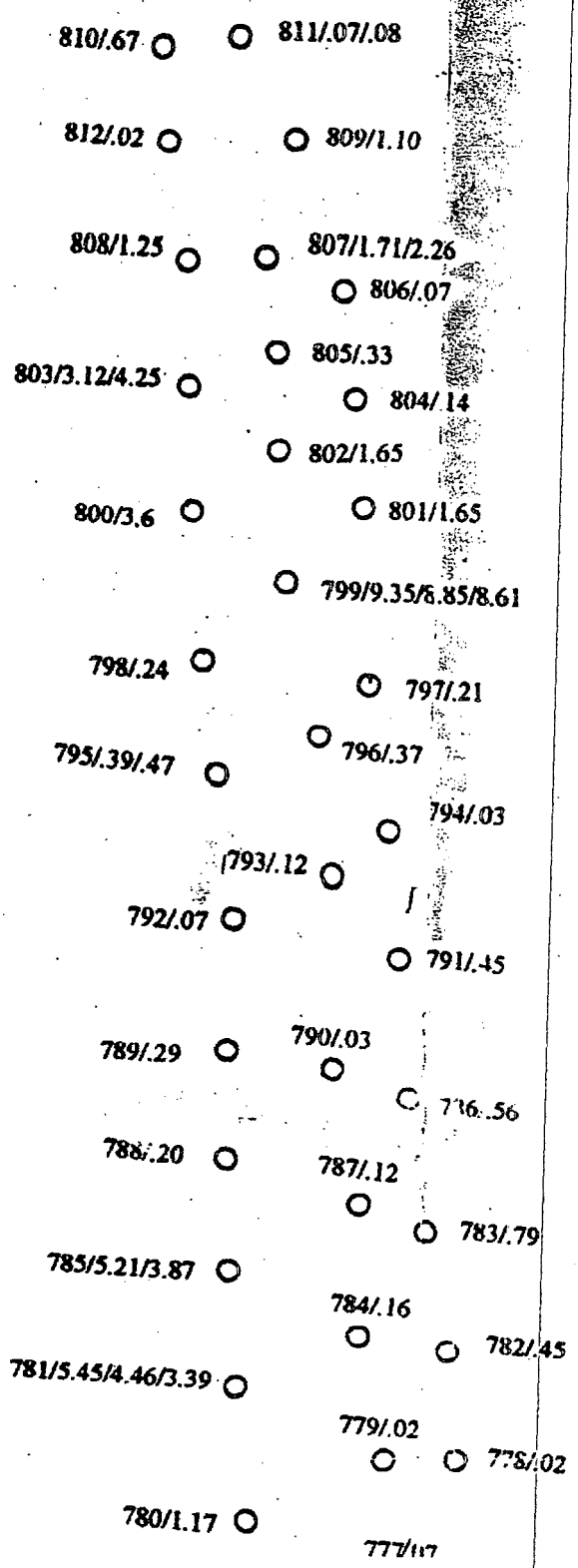
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796/.37
794/.03
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792/.07
791/.45
789/.29
790/.03
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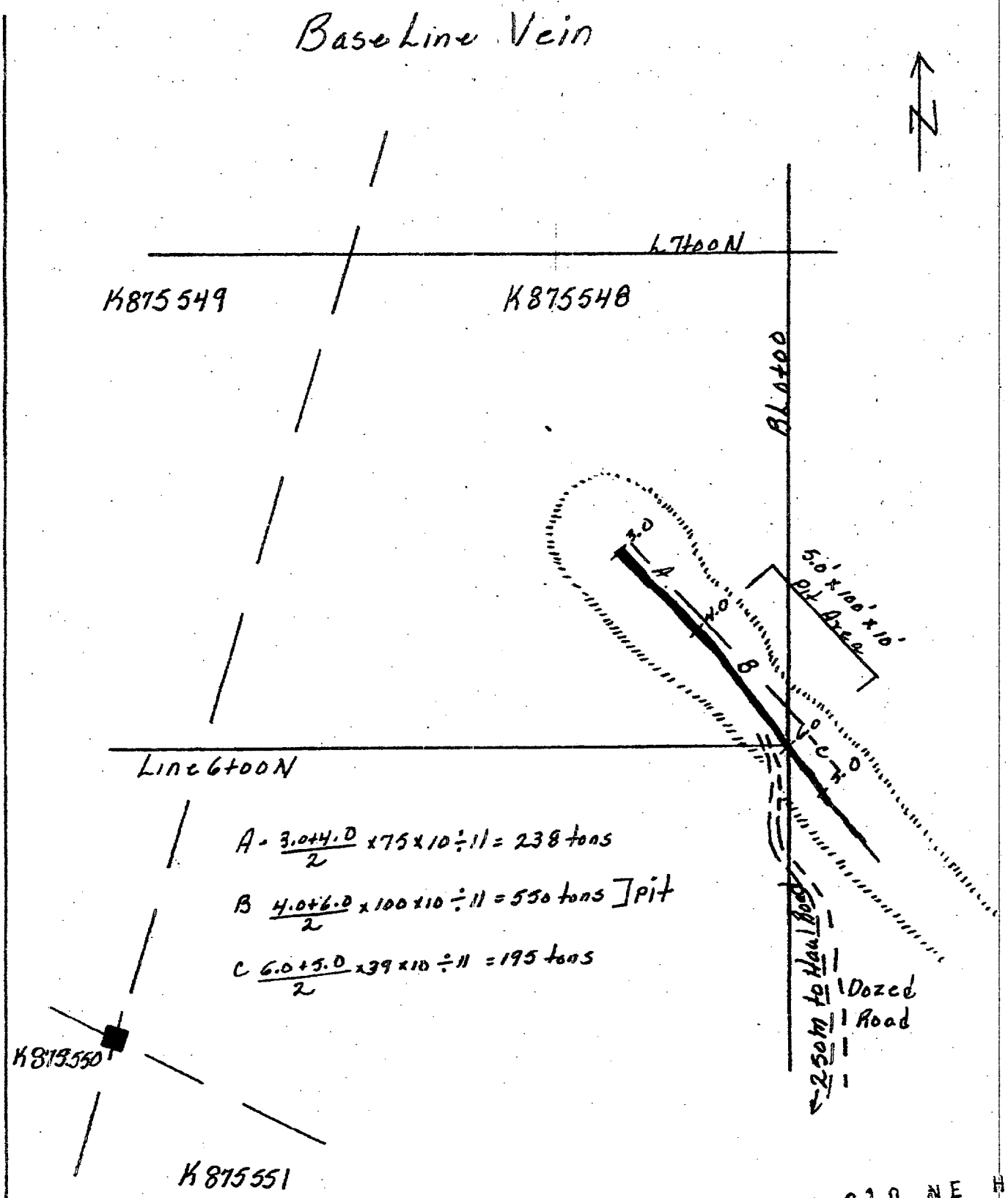


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C10 NE HHH-

Hexagon Gold (Ontario) Ltd

# Swastika Laboratories Ltd

Established 1928

Assaying - Consulting - Representation



## *Assay Certificate*

0W-1064-RA1

Company: **HEXAGON GOLD (ONTARIO) LTD**
Project: Baseline
Attn: J. Bolen

Date: APR-10-00

*We hereby certify* the following Assay of 34 Percussion Drill samples submitted APR-05-00 by .

| Sample Number | Au g/tonne | Au Check g/tonne | Au 2nd g/tonne | Au Check g/tonne |
|---|---|---|---|---|
| 46661 | 0.32 | 0.30 | - | - |
| 46662 | 1.19 | - | - | - |
| 46663 | 0.08 | - | - | - |
| 46664 | 0.63 | - | - | - |
| 46665 | 2.19 | 2.23 | 1.85 | - |
| 46666 | 0.43 | - | - | - |
| 46667 | 0.20 | - | - | - |
| 46668 | 0.24 | - | - | - |
| 46669 | 0.16 | - | - | - |
| 46670 | 0.31 | - | - | - |
| 46671 | 0.28 | - | - | - |
| 46672 | 0.03 | - | - | - |
| 46673 | 0.11 | - | - | - |
| 46674 | 0.10 | 0.15 | - | - |
| 46675 | 0.25 | - | - | - |
| 46676 | 0.08 | - | - | - |
| 46677 | 0.04 | - | - | - |
| 46678 | 2.33 | 1.37 | 1.61 | - |
| 46679 | 0.56 | - | - | - |
| 46680 | 0.19 | - | - | - |
| 46681 | 0.02 | - | - | - |
| 46682 | 0.47 | - | - | - |
| 46683 | 0.12 | - | - | - |
| 46684 | 1.28 | - | - | - |
| 46685 | 0.08 | - | - | - |
| 46686 | 3.43 | 2.95 | 3.77 | - |
| 46687 | 1.75 | - | - | - |
| 46688 | 1.03 | - | - | - |
| 46689 | 0.12 | - | - | - |
| 46690 | 0.31 | - | - | - |

One assay ton portion used.

*Certified by* G. Gilbert

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Telephone (705) 642-3244 Fax (705) 642-3300

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# Swastika Laboratories Ltd

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## *Assay Certificate*

0W-1064-RA1

Company: **HEXAGON GOLD (ONTARIO) LTD**
Project: Baseline
Attn: J. Bolen

Date: APR-10-00

*We hereby certify* the following Assay of 34 Percussion Drill samples submitted APR-05-00 by .

| Sample Number | Au g/tonne | Au Check g/tonne | Au 2nd g/tonne | Au Check g/tonne |
|---|---|---|---|---|
| 46691 | 0.53 | - | - | - |
| 46692 | 4.39 | 1.82 | 1.44 | 1.92 |
| 46693 | 0.26 | - | - | - |
| 46694 | 0.07 | - | - | - |
| Blank | Nil | - | - | - |
| STD TT-23 | 0.62 | - | - | - |

One assay ton portion used.

*Certified by* _____

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## *Assay Certificate*

0W-1078-RA1

Company: **HEXAGON GOLD (ONTARIO) LTD**
Project: Baseline
Attn: J. Bolen

Date: APR-12-00

*We hereby certify* the following Assay of 34 Percussion Drill samples submitted APR-07-00 by .

| Sample Number | Au g/tonne | Au Check g/tonne | Au 2nd g/tonne |
|---|---|---|---|
| 46695 | 0.06 | - | - |
| 46696 | 0.02 | - | - |
| 46697 | 0.05 | - | - |
| 46698 | 2.40 | 2.37 | 2.02 |
| 46699 | 0.16 | - | - |
| 46700 | 0.03 | - | - |
| 46701 | 0.31 | - | - |
| 46702 | 0.13 | - | - |
| 46703 | 0.42 | - | - |
| 46704 | 0.08 | - | - |
| 46705 | 0.18 | - | - |
| 46706 | 0.12 | - | - |
| 46707 | 0.05 | - | - |
| 46708 | 0.04 | - | - |
| 46709 | 0.17 | - | - |
| 46710 | 0.20 | - | - |
| 46711 | 0.19 | 0.21 | - |
| 46712 | 0.06 | - | - |
| 46713 | 0.25 | - | - |
| 46714 | 0.10 | - | - |
| 46715 | 0.12 | - | - |
| 46716 | 0.24 | - | - |
| 46717 | 0.10 | - | - |
| 46718 | 1.60 | 1.71 | - |
| 46719 | 0.47 | - | - |
| 46720 | 0.09 | - | - |
| 46721 | 0.41 | 0.34 | - |
| 46722 | 0.21 | - | - |
| 46723 | 0.55 | - | - |
| 46724 | 1.43 | 1.58 | - |

One assay ton portion used.

*Certified by* G. Gilbert

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Attn: J. Bolen

Date: APR-12-00

*We hereby certify* the following Assay of 34 Percussion Drill samples submitted APR-07-00 by .

| Sample Number | Au g/tonne | Au Check g/tonne | Au 2nd g/tonne |
|---|---|---|---|
| 46725 | 0.55 | - | - |
| 46726 | 0.27 | - | - |
| 46727 | 0.15 | - | - |
| 46728 | 0.68 | 0.63 | - |
| Blank | Nil | - | - |
| STD TT-23 | 0.63 | - | - |

One assay ton portion used.

*Certified by* _____

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## *Assay Certificate*

0W-1091-RA1

Company: **HEXAGON GOLD (ONTARIO) LTD**
Project: Baseline
Attn: J.Bolen

Date: APR-14-00

*We hereby certify* the following Assay of 40 Percussion Drill samples submitted APR-07-00 by .

| Sample Number | Au g/tonne | Au Check g/tonne | Au 2nd g/tonne |
|---|---|---|---|
| 46729 | 0.17 | - | - |
| 46730 | 0.17 | - | - |
| 46731 | 0.08 | - | - |
| 46732 | 0.08 | - | - |
| 46733 | 0.16 | 0.17 | - |
| 46734 | 0.13 | - | - |
| 46735 | 0.18 | - | - |
| 46736 | 0.06 | - | - |
| 46737 | 1.40 | 1.71 | - |
| 46738 | 0.77 | - | - |
| 46739 | 0.38 | - | - |
| 46740 | 0.07 | - | - |
| 46741 | 0.14 | - | - |
| 46742 | 0.14 | - | - |
| 46743 | 0.11 | 0.13 | - |
| 46744 | 0.02 | - | - |
| 46745 | 0.07 | - | - |
| 46746 | 0.14 | - | - |
| 46747 | 1.37 | - | - |
| 46748 | 0.12 | - | - |
| 46749 | 0.35 | - | - |
| 46750 | 0.10 | - | - |
| 46751 | 2.61 | - | - |
| 46752 | 0.62 | - | - |
| 46753 | 25.51 | 30.24 | 20.61 |
| 46754 | 2.06 | - | - |
| 46755 | 2.85 | - | - |
| 46756 | 5.45 | 5.11 | 4.56 |
| 46757 | 2.50 | - | - |
| 46758 | 1.03 | - | - |

One assay ton portion used.

*Certified by* G. Gilbert

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## *Assay Certificate*

0W-1102-RA1

Company: **HEXAGON GOLD (ONTARIO) LTD**
Project: Baseline
Attn: J. Bolen

Date: APR-17-00

*We hereby certify* the following Assay of 44 Percussion Drill samples submitted APR-10-00 by .

| Sample Number | Au g/tonne | Au Check g/tonne | Au Check g/tonne | Au 2nd g/tonne |
|---|---|---|---|---|
| 46769 | 2.61 | 1.73 | 4.46 | - |
| 46770 | 0.54 | - | - | - |
| 46771 | 0.57 | - | - | - |
| 46772 | 0.16 | - | - | - |
| 46773 | 0.17 | - | - | - |
| 46774 | 0.30 | - | - | - |
| 46775 | 0.07 | - | - | - |
| 46776 | 0.05 | - | - | - |
| 46777 | 0.07 | - | - | - |
| 46778 | 0.02 | - | - | - |
| 46779 | 0.02 | - | - | - |
| 46780 | 1.17 | - | - | - |
| 46781 | 5.45 | 4.46 | - | 3.39 |
| 46782 | 0.45 | - | - | - |
| 46783 | 0.79 | - | - | - |
| 46784 | 0.16 | - | - | - |
| 46785 | 5.21 | 3.87 | - | - |
| 46786 | 0.56 | - | - | - |
| 46787 | 0.12 | - | - | - |
| 46788 | 0.20 | - | - | - |
| 46789 | 0.29 | - | - | - |
| 46790 | 0.03 | - | - | - |
| 46791 | 0.45 | - | - | - |
| 46792 | 0.07 | - | - | - |
| 46793 | 0.12 | - | - | - |
| 46794 | 0.03 | - | - | - |
| 46795 | 0.39 | 0.47 | - | - |
| 46796 | 0.37 | - | - | - |
| 46797 | 0.21 | - | - | - |
| 46798 | 0.24 | - | - | - |

One assay ton portion used.

*Certified by* G. Seburn

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0W-1102-RA1

## *Assay Certificate*

Company: **HEXAGON GOLD (ONTARIO) LTD**
Project: Baseline
Attn: J. Bolen

Date: APR-17-00

*We hereby certify* the following Assay of 44 Percussion Drill samples submitted APR-10-00 by .

| Sample Number | Au g/tonne | Au Check g/tonne | Au Check g/tonne | Au 2nd g/tonne |
|---|---|---|---|---|
| 46799 | 9.53 | 8.85 | - | 8.61 |
| 46800 | 3.60 | - | - | - |
| 46801 | 1.65 | - | - | - |
| 46802 | 1.75 | - | - | - |
| 46803 | 3.12 | 4.25 | - | - |
| 46804 | 0.14 | - | - | - |
| 46805 | 0.33 | - | - | - |
| 46806 | 0.07 | - | - | - |
| 46807 | 1.71 | 2.26 | - | - |
| 46808 | 1.25 | - | - | - |
| 46809 | 1.10 | - | - | - |
| 46810 | 0.67 | - | - | - |
| 46811 | 0.07 | 0.08 | - | - |
| 46812 | 0.02 | - | - | - |
| Blank | 0.01 | - | - | - |
| STD TT-23 | 0.62 | - | - | - |

One assay ton portion used.

*Certified by* G. Gilbert

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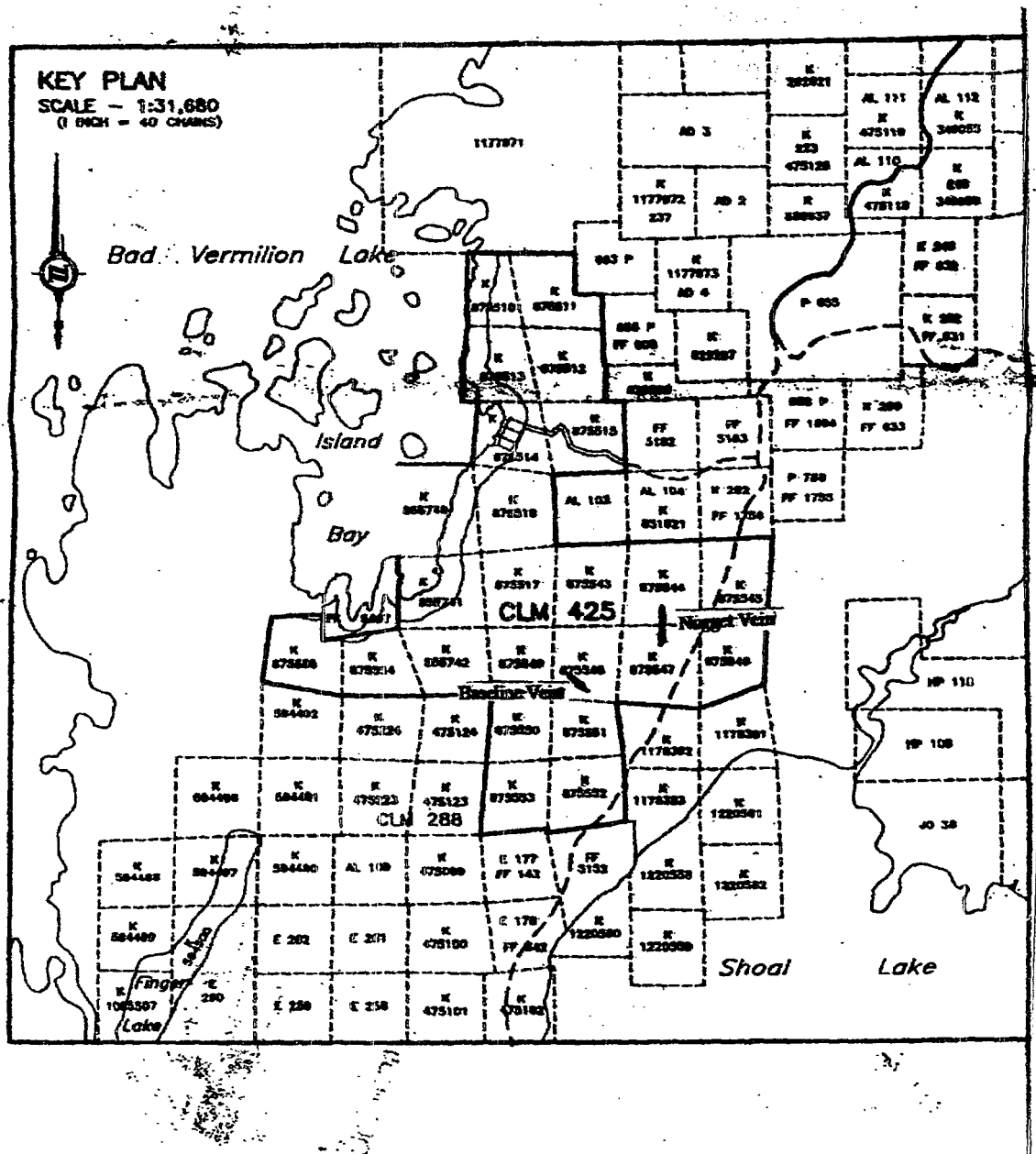
Telephone (705) 642-3244 Fax (705) 642-3300




PLAN AND FIELD NOTES OF
PERIMETER SURVEY

# CLM 425

COMPRISING MINING CLAIMS

K 855740 TO K 855742, BOTH INCLUSIVE,
K 875510 TO K 875517, BOTH INCLUSIVE
AND
K 875543 TO K 875555, BOTH INCLUSIVE

IN THE

# BAD VERMILION LAKE AREA

[redacted]

C10 NE HHH- 1

## APPENDIX F – AUTHORS' WORK EXPERIENCE

# RICHARD C. BEARD, P.Eng.

**Principal Consultant, Northwest Mineral Development Services**

*Qualifications*:

- B.Sc. & M.Sc. In Geological Engineering, Michigan Technological University.
- Registered Professional Engineer in the Province of Ontario.
- 37 years experience in the mineral industry, working in both the exploration and the mine development sectors of the industry. This work has including 26 years with the geology and mining departments of the Government of Ontario.

As a result of this work experience, the principal consultant has gained:

- A strong knowledge and understanding of the geology and mineral deposits of northern Ontario.
- A good working knowledge of mineral exploration methods and techniques as applied to gold, base metals and iron.
- An extensive knowledge and understanding of the permitting and approval process in Ontario.
- A first hand knowledge of legislation and regulations dealing with mine and quarry development.
- Well-established contacts with staff in many of the permitting agencies in northwestern Ontario.
- Experience in handling sensitive Aboriginal issues and concerns, and how to best communicate with First Nation communities.

*Work Experience*

1999 - Present

*Principal Consultant, Northwest Mineral Development Services*

Consulting for mineral exploration and development companies and granite quarry companies, largely assisting with the acquisition of required government permits and approvals.

1986-1998

Mineral Development Coordinator, Mines and Minerals Division, Ontario Ministry of Northern Development and Mines, Kenora, Ontario.

Provided a mineral development consulting service to clients, assisting primarily with:

- Obtaining required permits and approvals for advanced exploration and mining projects.

- Obtaining government financial assistance, when available.
- Resolving sensitive issues arising between Aboriginal communities and exploration/mining projects.

1980 - 1986
Mineral Resources Coordinator
*Ministry of Natural Resources, Kenora, Ontario*
Directed the Mineral Management program for the Northwest Region, planning and developing projects and strategy, supervising, directly and indirectly a staff of up to 10, and managing a budget of over $300,000. Maintained close liaison with mineral resource industry in the region providing assistance where required. Monitored private and public sector activity, advising senior management of the Ministry of impending problems and program needs.

1973 - 1980
Regional Geologist
Ministry of Natural Resources, Kenora, Ontario
Carried out all of the functions noted above, but also provided Resident Geologist services for the Kenora Mining Division.

1972 - 1973
*Consulting Geologist, Toronto*
Contracted geological services in northern Ontario, Quebec, and Manitoba.

1970 - 1972
Regional Geologist
*Amoco Canada Petroleum Co. Ltd., Mining Division, Toronto*
Directed mineral exploration for eastern Canada, reporting to Manager of Mining Division, Canada. Supervised staff of four geologists and managed a budget of over $2 million. Responsible for preparing budgets, hiring staff, initiating research, and selecting areas for exploration.

1967 - 1970
*Area Geologist*
*H.K. Porter Co., Thetford Mines, Quebec*
Managed a small (3 man) exploration office, carrying out base metal, gold, and asbestos exploration in eastern Quebec and New England states. Initiated programs locally and reported to Chief Geologist in Pittsburgh.

1965 - 1967
Project Geologist
*Anaconda American Brass Ltd., Noranda, Quebec*
Responsible for field supervision of integrated exploration projects in northeast Ontario and northwest Quebec. Also property examinations, compilations, and research projects. Supervised field camps of up to 18 men.

October 1959 to June 1965
Project Geologist
*Pickands Mather and Company, Duluth, Minnesota*
Carried out exploration and evaluation programs, largely for iron, in the Lake Superior District. Some open pit and underground mine geology on a consulting basis.

1955 - 1958
Geophysicist
*Chevron Oil Company, Houston, Texas*
Worked on seismic geophysical crew, at locations throughout western Canada and western and southwest U.S. Duties as instrument operator included supervision of field crew of 8 – 12 men. Duties as "computer" included supervision of small office staff, general accounting, and reduction of field data.

**CHARLES E. BLACKBURN**

EDUCATION

M.Sc. Geology (1967) University of Western Ontario, London, Ontario, Canada
H.B.Sc. Geology (1963) University of Wales, Swansea, Great Britain

EXPERIENCE/QUALIFICATIONS

Charlie Blackburn co-founded Blackburn Geological Services (BGS) in 2000. Most recently (2001-2002) BGS provided the earth science portion of an earth and life science reconnaissance inventory of 13 new conservation reserves and a new provincial park in northwest Ontario. In the spring of 2002, BGS contributed to the 48th Annual Meeting of the Institute on Lake Superior Geology in Kenora, by co-ordinating 6 field trips, one of which was led by Charlie Blackburn. Among other activities, BGS completed (2000-2001) a detailed earth science inventory of the additions to Woodland Caribou Provincial Park, northwestern Ontario.

Charlie Blackburn retired from the Ontario Geological Survey in 2000 after 30 years of experience in the Precambrian geology of northwestern Ontario. He has extensive field-based knowledge of regional and detailed geology of the area between the Manitoba border on the west and the Minnesota border on the south, north to Red Lake, and east to Ignace and Atikokan. All this has been gained from geological mapping at detailed scales, geological compilation, geological reconnaissance and mineral site and property visits, both while mapping as a Field Project Geologist and latterly as Resident Geologist in Kenora and Red Lake. His numerous government reports and maps are used extensively by mineral exploration geologists and prospectors. His academic publications on both regional geology and mineral deposit modeling of the area have aided in the formulation of exploration concepts by mineral industry personnel. In his most recent position, prior to retirement from the provincial government, he was Mineral Development Co-ordinator, Kenora. In this capacity he provided services pertaining to advanced exploration projects designated under the Ontario Mining Act.

EMPLOYMENT HISTORY

Principal Geologist, Blackburn Geological Services
2000 - present
Provides diverse geological services to the minerals industry and government. Services offered include mineral exploration advice and concept development, geological mapping at detailed scale, geological reconnaissance, interpretation of geological data, assessment file research and compilation, assessment work

report preparation, report writing and editing, mineral development advice and consultation, and recommendations for land use planning.

Projects completed to date include:
Earth science inventory of 13 conservation reserves and one provincial park, for the Ontario Ministry of Natural Resources, sub-contracted from Northern Bioscience.
Title search of a privately owned inactive mining property for a mining exploration company.
Drill core logging and sampling for geochemical analysis for a mining exploration company.
Earth science inventory of the additions to Woodland Caribou Provincial Park, for the Ontario Ministry of Natural Resources.

Mineral Development Co-ordinator, Northwest, Ontario Geological Survey
1999-2000
Provided consultation and advice to private sector mineral industry personnel regarding advanced exploration and review of applications for advanced mineral exploration projects designated under the Ontario Mining Act.

Regional Resident Geologist, Red Lake-Kenora, Ontario Geological Survey
1997-1999
Provided consultation and advice to private sector mineral industry personnel, geologists and prospectors regarding exploration for metallic and industrial minerals in both the broader Red Lake-Kenora region and more specifically in the Red Lake greenstone belt.
Provided geological expertise to ministries of the Ontario government, in particular Northern Development and Mines, Natural Resources, and Environment, in land use planning, mineral potential evaluation and environmental concerns.
Researched geology of mineral related areas of the broader Red Lake-Kenora region, and published findings in annual reports of the Resident Geologist program.
Oversaw operation of the Red Lake and Kenora district offices of the Resident Geologist program.

Resident Geologist, Kenora District, Ontario Geological Survey
1981-1997
Provided consultation and advice to private sector mineral industry personnel, geologists and prospectors regarding exploration for metallic and industrial minerals in the broader Kenora district.
Provided geological expertise to ministries of the Ontario government, in particular Northern Development and Mines, Natural Resources, and Environment, in land use planning, mineral potential evaluation and environmental concerns.

Visited and reported on mineral properties and areas of potential interest for exploration for metallic and industrial minerals.
Researched geology of mineral related areas of the broader Kenora district, and published findings in annual reports of the Resident Geologist program.
Gave verbal presentations based on results of field-based programs at geological and mining symposia, to promote exploration activity in the broader Kenora district.
Contributed to geoscientific understanding of the Precambrian geology of northwest Ontario by authoring and co-authoring internal and external publications. A major contribution was as senior writer in co-authorship of Chapter 9, "Wabigoon Subprovince", in "Geology of Ontario", a landmark publication celebrating the centennial in 1991 of the founding of the Ontario Bureau of Mines, now the Ministry of Northern Development and Mines.
Organized and conducted geological field excursions for mineral industry, government and academic geoscientists, prospectors and the general public.
Gave classes to train potential prospectors, promote understanding of the minerals industry and facilitate discovery of new economic mineral occurrences.

Supervising Geologist, Ontario Geological Survey
1980-1981
Co-ordinated the geological program of the Central Archean subsection, involving permanent staff and contract field project geologists.

Field Project Geologist, Ontario Geological Survey
1970-1980
Conducted geological surveys of predominantly Precambrian rocks and to a lesser extent surficial deposits in selected areas of northwestern Ontario, for production of geological maps and accompanying reports.
Contributed to geoscientific understanding of the Precambrian geology of northwest Ontario by authoring and co-authoring internal and external publications, and giving verbal presentations at geological and mining industry symposia.
Assembled map-based data for publication of compilation maps of the broader geology of northwestern Ontario.

Exploration Geologist, Denison Mines Ltd.
May - August, 1967 and 1969
Conducted independent geological reconnaissance, field mapping and sedimentological and structural studies as tools in exploration for uranium in the Elliot Lake - Sudbury area.

Senior Geological Assistant, Ontario Geological Survey
May - August, 1964, 1965 and 1966
Conducted, under supervision of a field project geologist, geological surveys of selected areas of Precambrian rocks of northwestern and central Ontario.

## RELATED ACTIVITIES

Fellow of the Geological Association of Canada
Member of the Association of Geoscientists of Ontario
Sometime participant in activities of and membership in the Prospectors and Developers Association of Canada, the Northwest Ontario Prospectors Association, the Institute on Lake Superior Geology, and the Canadian Institute of Mining and Metallurgy
Co-founder of the informal Kenora Area Mining Group
Eligible for registration as a Professional Geologist in the Province of Ontario under the Professional Geoscientists Act, upon proclamation.