

675335

WAYSIDE PROPERTY
GOLD BRIDGE, B.C.
COMPILATION OF EXPLORATION DATA

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SUMMARY

The Wayside property is located approximately 3 km north of Gold Bridge and 165 km north of Vancouver in the Pacific Coast Range Mountains of southwestern British Columbia. The property is within the Bridge River camp, 13 km north of the Bralorne and Pioneer mines, which produced some 4,200,000 oz gold.

The Wayside mine is located on the property, and recorded production (1906-1937) was 43,094 tons, containing 5,341 oz gold (0.124 oz Au/ton) and 842 oz silver (0.020 oz Ag/ton). The mine was further developed from 1947 to 1953; however, no production records exist for this period.

The Wayside property has excellent exploration potential. This is indicated by the following deposit models:

- 1) Bralorne-type quartz veins in diorite and dioritized greenstone,
- 2) Base metal massive sulphides with associated gold and silver,
- 3) Congress-type quartz veins in altered dykes, and
- 4) Reliance-type quartz veins in altered volcanics.

Bralorne-type quartz veins occur in greenstone, dioritized greenstone, and sediments. Ore shoots are spatially and genetically related to dykes and occupy tension fractures and faults. The veins consist mainly of milky quartz, with lesser carbonates and metallic minerals. The geological setting, morphology and mineralogy of the Wayside veins is identical to that of the Bralorne-Pioneer. The Wayside veins are in a well developed shear zone which has been explored on ten levels and with 14 drill holes over at least 350 m vertically and 500 m along strike. The most promising drill intercept was 1.84 oz Au/ton over 1.6 m in hole 87-1. The nearest follow-up hole to this intercept is at least 80 m to the southeast. The Wayside veins are recommended as an exploration target.

A greenstone hosted massive sulphide occurrence was discovered in 1974 less than 1 km from the Wayside mine. Between 1975 and 1985, twenty drill holes probed the sulphide deposit and tested its north and south extensions. Drill indicated reserves are reported at 150,000 tonnes of 1.76% Cu and 3.03% Zn. The sulphide body appears to be truncated by a complex set of faults at both ends. Re-sampling of core from the massive sulphide zone in 1987 identified a banded, arsenopyrite bearing quartz vein, which carried 0.125 oz Au/ton over 0.9 m. This vein is in the greenstone host of the sulphide body. It is recommended that the close spatial, and perhaps, genetic affiliation of the gold and massive sulphides be investigated.

A highly altered feldspar porphyry dyke has been located at the north end of the Wayside property. The dyke is up to 6 m thick and has been observed for 1.5 km along strike. Trenching and drilling along approximately 350 m of its length indicates values up to 0.084 oz Au/ton over 0.7 m. The Howard and Congress mines are 2.5 and 4 km east of the Wayside property, respectively. Both of these mines are former producers and have been explored extensively in recent years. Gold values are confined to quartz lenses in highly altered Tertiary porphyry dykes. The dyke at the north end of the Wayside property is geologically similar to these mines and together with their close proximity, make it a highly attractive exploration target.

The Reliance property hosts a structurally-lithologically controlled gold deposit in an altered greenstone at the contact with carbonaceous chert and is within 3 km of the Wayside. The close proximity of this deposit indicates the possibility that a similar deposit may exist on the Wayside property; thus, it is recommended that the exploration program test all structural-lithological contacts.

The work completed to date indicates the high potential of the property. It is strongly recommended that a methodical and extensive exploration program be commenced to realize that potential. The initial phase of the program has been estimated at \$ 500,000.

INTRODUCTION

Location and Access

The Wayside property is located at the west end of Carpenter Lake, approximately 3 km from the town of Gold Bridge, in the Lillooet Mining Division (Figure 1).

Access to the property from Vancouver is via the Trans Canada Highway to Lytton, Lillooet and Gold Bridge, a total distance of approximately 400 km. A second route for summer use is via the Squamish Highway to Pemberton, then by logging access roads from Pemberton Meadows to Gold Bridge, a distance of approximately 250 km (Figure 2).

The highway from Lillooet to Gold Bridge passes through the centre of the claim group. A system of logging roads provide good access to most parts of the claim group, particularly on the west side of Carpenter Lake. A new road along the south side of Gun Lake passes through the north part of the Wayside property (Figure 3).

A power transmission line from the Gold Bridge generating station crosses the property. The town of Gold Bridge, a few kilometers from the centre of the property, supports a hotel, motel, and a number of small businesses. The town of Bralorne, with similar facilities, is located 11 km south of Gold Bridge.

Topography

Topography varies from flat to rolling on the west side of Carpenter Lake (Photo 1) to steep on the east side. Elevations range from 670 to 1000 meters. The level of Carpenter Lake is controlled by a dam, and as a result, is flooded from late summer to mid-winter. The maximum lake level is 665 meters above sea level.

Vegetation

The claims area is forested and partially logged. Extensive logging has taken place on the northwest side of Carpenter Lake; otherwise, the claims area is moderately-to-heavily forested with pine, fir, birch and poplar. Undergrowth is not heavy (Photo 2).

Claim Status

The claims comprising the Wayside property cover a total area of 1,850 hectares and are shown in Figure 4. Table 1 lists the claims, file number, and expiry dates.

The property is owned by Amazon Petroleum Corp. (50%), and Carpenter Lake Resources Ltd. (50%), both publicly trading companies on the Vancouver Stock Exchange.

History of Exploration and Development

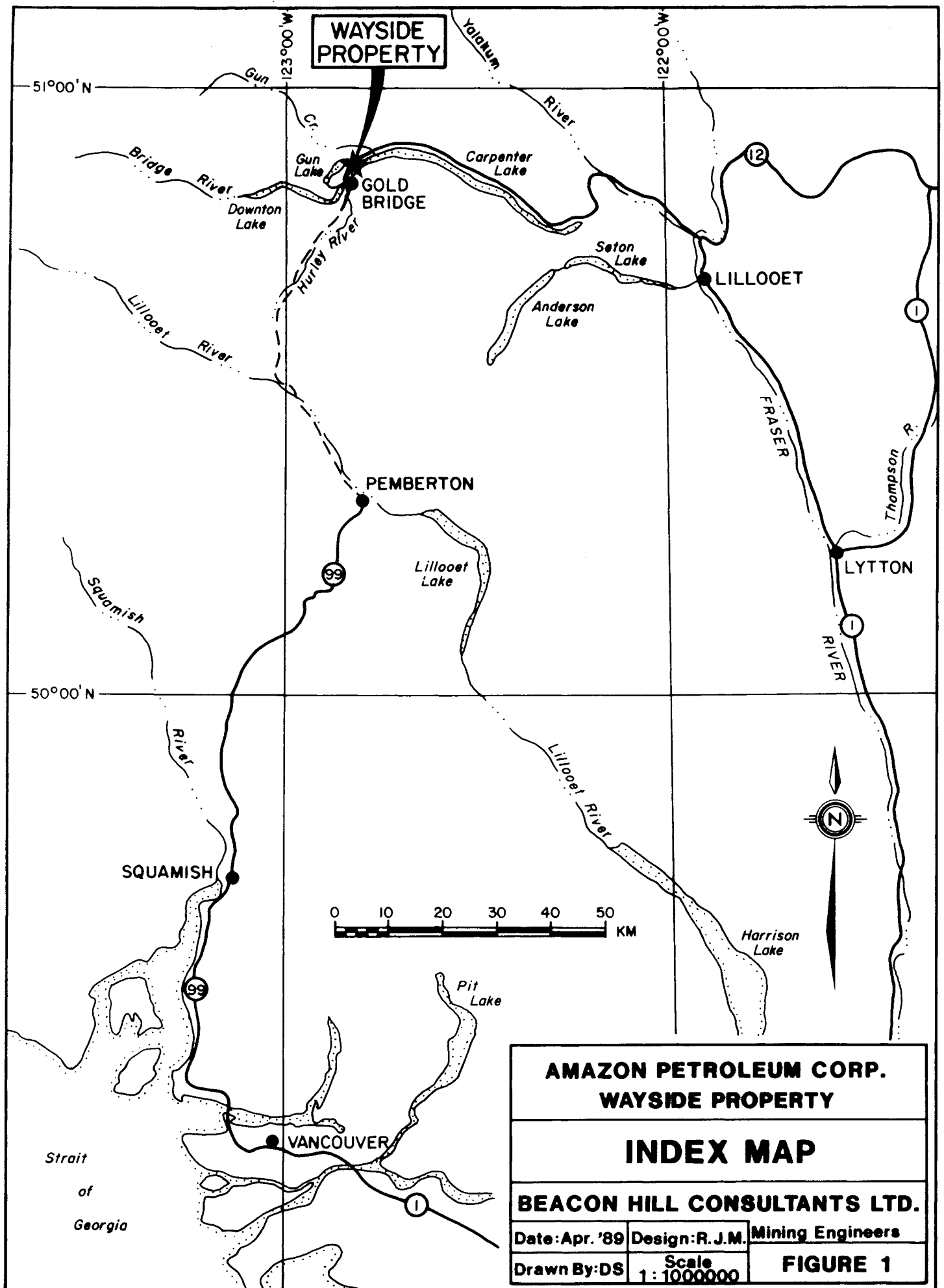
Since the discovery of the original Wayside deposit about 1900, the property has had a fragmented history of exploration and development. The main periods of exploration were 1906-1937, 1946-1953 and from 1972 to present. Most of the exploration effort had been directed to the original Wayside gold discovery, an outcropping quartz vein with erratic gold values. The vein approximately parallels a major shear zone which carries low grade gold values. The only documented production was from 1906 to 1937, when 43,094 tons were reportedly mined, from which 5,341 oz Au and 842 oz Ag were produced. Work during the period 1975 to 1985 focused on the New Discovery, a massive sulphide body, and since 1985, exploration efforts were again directed to gold work only, although more of the property was investigated. Chevron Minerals Ltd. began a systematic exploration program in 1987 and has taken the property to the point where there is a good understanding of the geology and many exploration targets have been identified.

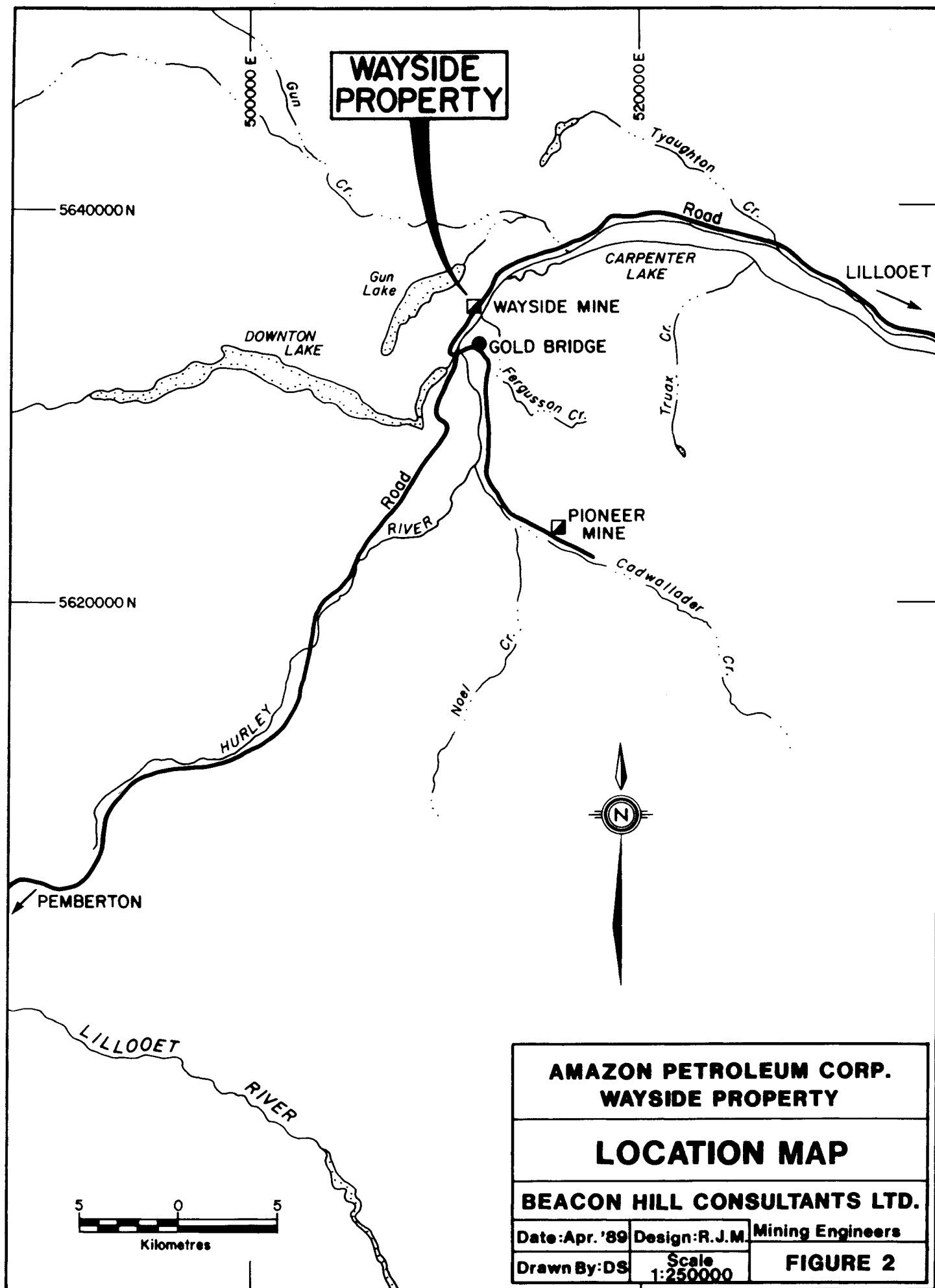
Discussion

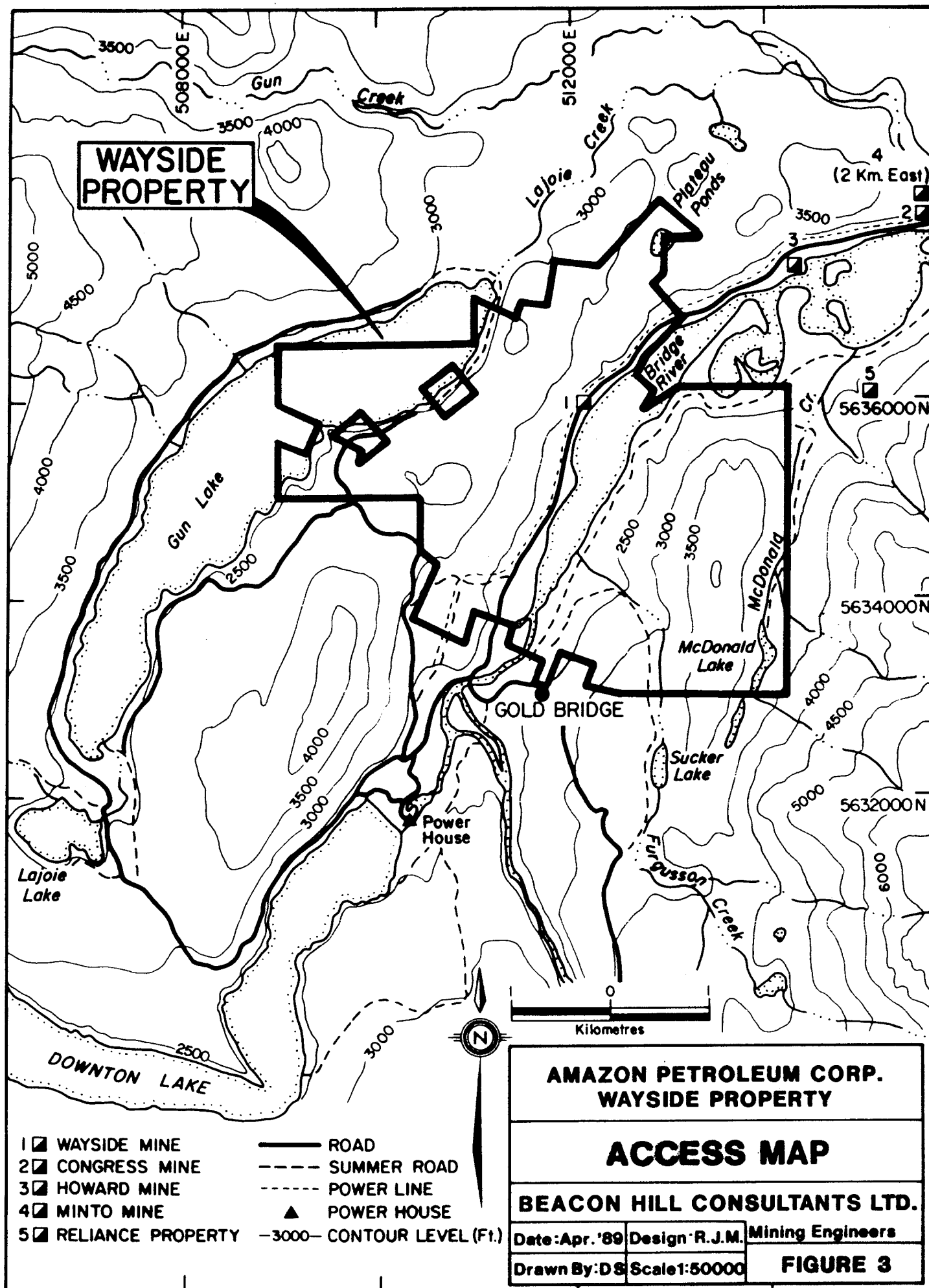
The Wayside property hosts numerous exploration target areas, as shown on Figure 11. These five principal areas are:

1. Wayside Mine - the most northerly body of Bralorne Intrusive, hosting the Wayside shear and vein system. The old underground workings consist of ten levels, with nine adits and an internal shaft connecting the lowest four levels. The Commodore and 3T veins are additional target areas within the same diorite body.
2. Southwest Diorite - the largest and most southerly body of Bralorne Intrusive. This area was explored by Chevron Minerals Ltd. during 1987-1988.
3. New Discovery - the central body of Bralorne Intrusive associated with a massive sulphide occurrence. The sulphides are hosted by basalts and were explored extensively from 1974 to 1985.
4. North End (Two Bob zone) - the extreme north end of the property covering younger sediments which are intruded by felsic dykes. The area has been explored from 1984 to present.
5. Southeast (Wayside Extension) - The area on the southeast side of Carpenter Lake. The area has seen preliminary exploration during 1987 and 1988.

This report represents a compilation of data from many sources. The work by Chevron Minerals Ltd., Dick et al., 1988, and McAllister et al., 1988, has been used extensively. Appendix 1 includes a more detailed description of the exploration and development history.









Looking north at the Wayside diorite body from the southeast side of Carpenter Lake. The highway from Lilloet and the powerline cross the lower part of the photo. The dump from the No. 5 adit is approximately at the centre of the photo, and to the left, are numerous dumps from the upper levels.



Looking to the west, from the Two Bob zone, at the dump from the powerline adit. The adit is in the Wayside diorite on its northeast contact. The sparse forest cover is typical of the south-facing slopes.

TABLE 1
CLAIM STATUS

Claim Name	Record No.	Units	Expiry Date
Argon	417	1	January 10,1995
Radium	418	1	January 10,1995
Helium	419	1	January 10,1995
Queen City Fr.	420	1	January 10,1995
Rodeo	421	1	January 10,1995
Commodore Fr.	422	1	January 10,1995
Lodge	423	1	January 10,1995
Alpha	424	1	January 10,1995
Beta	425	1	January 10,1995
Gamma	426	1	January 10,1995
Cabinet	427	1	January 10,1995
Counsel	428	1	January 10,1995
Newport	429	1	January 10,1995
Camp Denison	430	1	January 10,1995
Sun	431	1	January 10,1995
City 1	432	1	January 10,1995
Spring A	433	1	January 10,1995
Spring B	435	1	January 10,1995
Spring C	436	1	January 10,1995
Spring Fr.	434	1	January 10,1995
Lodge B	437	1	January 10,1995
Rodeo Fr.	438	1	January 10,1995
Wayside 2	439	1	January 10,1995
Lodge 2 Fr.	440	1	January 10,1995
Counsel 2	724	1	January 16,1995
Counsel 3	725	1	January 16,1995
Cabinet 3	726	1	January 16,1995
Sat 1	728	1	January 16,1995
Sat 3	727	1	January 16,1995
Wayside Ext. #2	1089	18	December 27,1995
Wayside Fr. #1	1247	1	March 10,1995
Wayside Fr. #2	1248	1	March 10,1995
Wayside Fr. #3	1249	1	March 10,1995
A-Fraction	1229	1	February 11,1995
Hillside 4	989	1	October 26,1995
Hillside Fr. & Riverside	990	1	October 26,1995
Lodge Ext. 1 & Lodge Ext. Fr.	1022	1	November 9,1995
Wayside B. Fr.	1044	1	November 16,1995
Port Fr.	1045	1	November 16,1995
Cabinet 2	1023	1	November 9,1995
Lake 3	3008	1	November 2,1995
Lake 2	3009	1	November 2,1995
Lake 1	3010	12	November 2,1995
Lake 1 Fr.	3011	1	November 5,1995
Lake 2 Fr.	3012	1	November 2,1995

Total 73

GEOLOGY

Regional Geology

The Wayside property is situated in the Bridge River Mining District and is part of the Coast Geanticline Tectonic element of the Canadian Cordillera (Figure 6).

The Gold Bridge-Bralorne area is predominantly underlain by eugeosynclinal volcano-sedimentary Fergusson Group of Permian to Triassic (?) age, and Triassic age Cadwallader Group. In fault contact with these bedded rocks are the Bralorne Intrusions, considered to be of Permian age.

Bedded rocks are intruded by the Coast Intrusions, predominantly of Cretaceous age, and by a suite of younger (Eocene age?) dykes and minor intrusions.

Figure 5 shows the lithologies exposed on the Wayside property.

Major faults are important in controlling outcrop distribution of units and have served as the locus for emplacement of small ultramafic intrusions.

Property Geology

The Wayside property is characterized by three distinct geological areas: the Bralorne Intrusives occupying the centre of the property, older volcanics and sediments flanking the intrusives on the east and west, and younger sediments at the north end of the property (Figures 6 and 7).

There are three separate, segmented bodies of Bralorne Intrusives juxtaposed against both Fergusson and Cadwallader Group sediments and volcanics. The southern body is the largest in area and is continuous with the large dioritic body which extends south to Bralorne and Pioneer, approximately 15 km. The central body is poorly exposed, although it was intercepted by drilling in the New Discovery area. The northern intrusive hosts the Wayside Mine and the Commodore and 3T veins.

Bridge River Group sediments and volcanics flank the Bralorne Intrusives on the east and west. Their greatest exposure is on the southeast side of the property which is interpreted as large, fault-bounded blocks trending northerly. The west side of the property shows smaller, fault-bounded blocks which trend northwesterly.

The north end of the property covers younger Cadwallader Group sediments. These sediments appear tightly folded, following a northern trend, and are cut by nearly conformable felsic dykes.

Discussion

Detailed mapping by Chevron Minerals Ltd. on the northerly side of Carpenter Lake and drilling in the New Discovery area strongly suggests the need for a re-interpretation of the three Bralorne Intrusive bodies with respect to their present day location. Church et al. (1988) and McAllister et al. (1988) propose that the two northerly diorite bodies were dislocated from the main southwest body by late stage faulting. It is hereby suggested that this late stage faulting did not occur and the three diorite bodies are located as emplaced along the complex Cadwallader fault zone. This interpretation envisages a major diorite body under the southwest end of the Carpenter Lake.

The North End area of the property covers younger strata. This conforms to the regional geology which has the Bridge River Group forming the core of a complex antiform that plunges northwesterly (Woodsworth et al., 1977).

McAllister (1988) presents a summary of geological history for the southeast area as shown in Table 2. This can be adapted to apply to the whole Wayside property.

In summary, the following three types of mineralization occur on the Wayside property:

1. Diorite hosted veins and silicified zones of shearing which represent Bralorne-type mineralization,
2. Dyke hosted silicified zones wherein the shale hosted dyke has been heavily silicified and carbonatized and,
3. Basalt hosted massive sulphide zones.

Appendix 2 provides a detailed description of the stratigraphy, structure, alteration, and mineralization.

BEDDED ROCKS

TERTIARY

- 7** (Eocene?) Felsic and intermediate lavas, hoodoo forming pyroclastics and minor sedimentary rocks

LOWER CRETACEOUS

- 6** TAYLOR CREEK GROUP: mostly boulder and pebble conglomerate and sandstone (6a) with some intercalated shales and micaceous sandstones (6b)

UPPER JURASSIC

- 5** RELAY MOUNTAIN GROUP: buchia-bearing grey shales, siltstones, tuffaceous and polymictic conglomerate

TRIASSIC

- CADWALLADER GROUP:
4 HURLEY FORMATION: soft brown and green argillites, siliceous and calcareous argillites with sandstone and conglomerate (4a), limestone (4b) and volcanoclastics (4c)
3 NOEL FORMATION: mainly black argillite and siltstone with some calcareous zones
2 PIONEER FORMATION: basaltic pillow lava (2a), aquagene breccia and lenses of limestone breccia (2b), tufts and amygdaloidal lava (2c)

PALEOZOIC

- 1** FERGUSON GROUP: mostly ribbon chert (1a), ranging to biotite quartz gneiss (1b), some marble bands (1c) and fine-grained amphibolite (1d)

IGNEOUS INTRUSIONS

TERTIARY

- D** REX PEAK PORPHYRY: a felsic phase of the (Eocene) Mission Ridge pluton and equivalent stocks, sills and dykes

CRETACEOUS

- C** COAST INTRUSIONS: biotite and hornblende diorite, granodiorite and granite (including the various phases of the Eldorado (Ca) and Bendor (Cb) stocks)

MESOZOIC

- B** ULTRABASIC ROCKS: peridotite, serpentine and listwanite (Ba)

PALEOZOIC

- A** BRALORNE INTRUSIONS: mostly heterogeneous amphibolite, diorite and gabbro with felsic veinlets

AMAZON PETROLEUM CORP.
WAYSIDE PROPERTY

STRATIGRAPHIC COLUMN

BEACON HILL CONSULTANTS LTD.

Date: Apr. '89 Design: R.J.M. Mining Engineers

Drawn By: DS

FIGURE 5

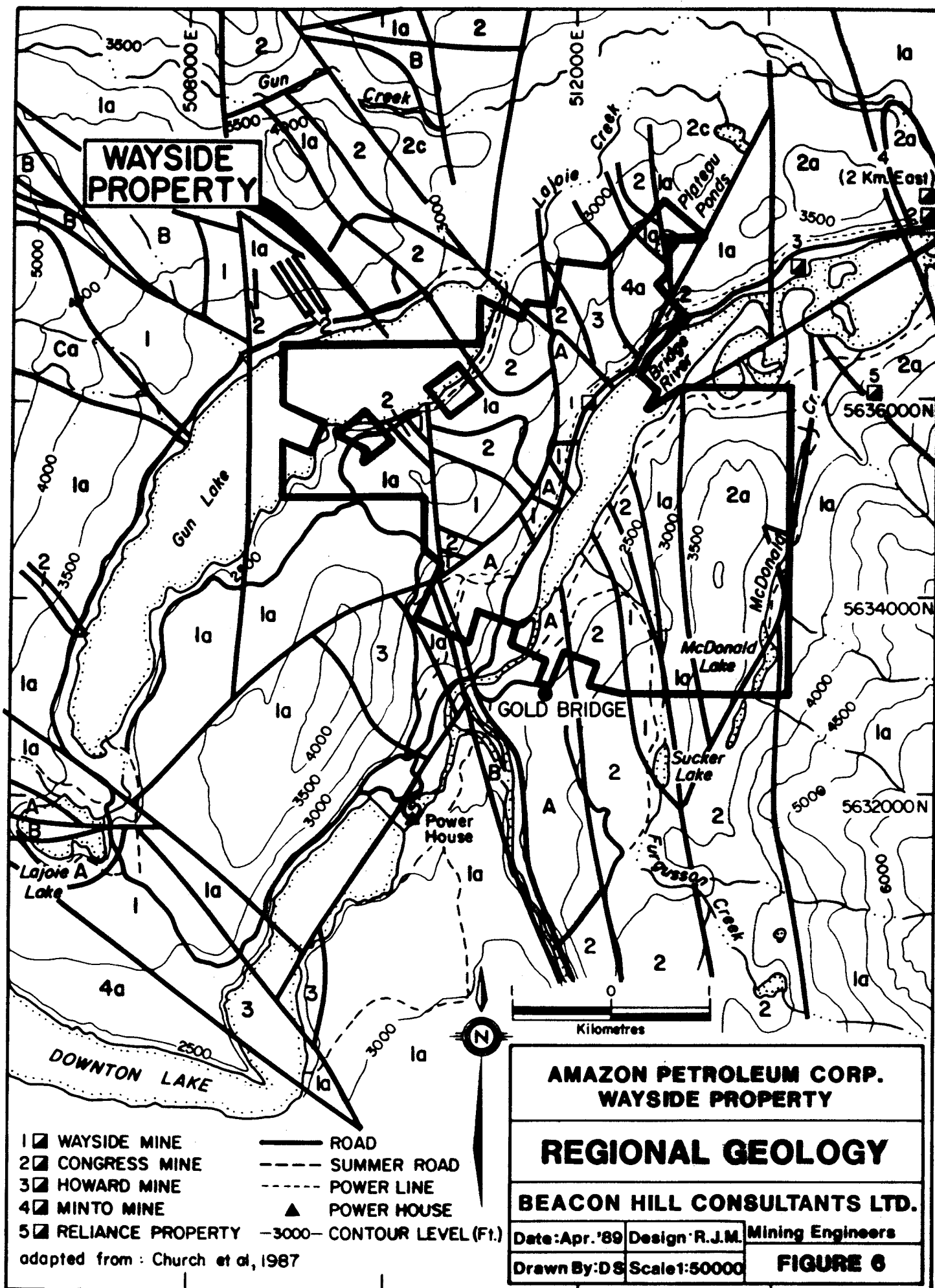
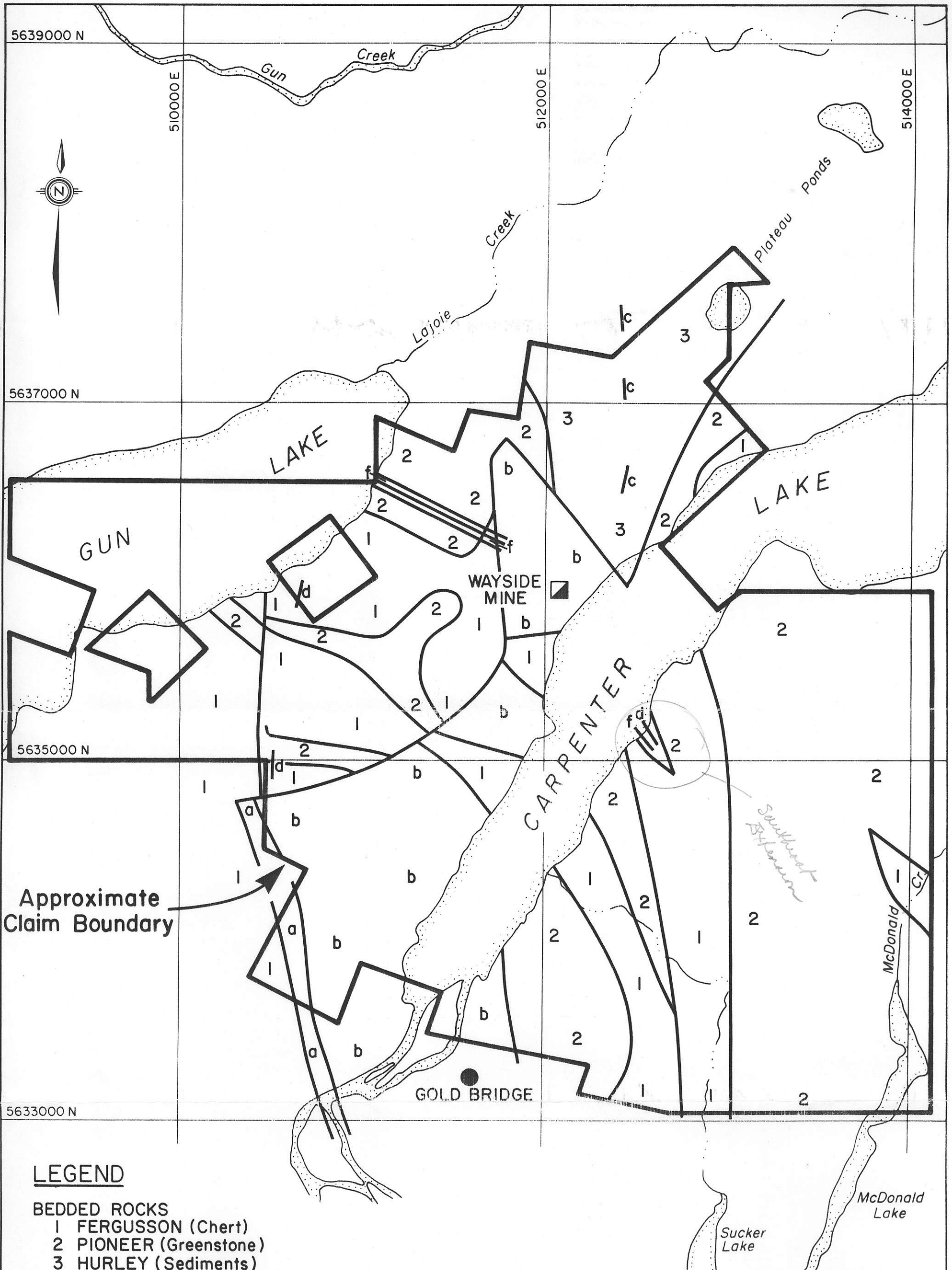
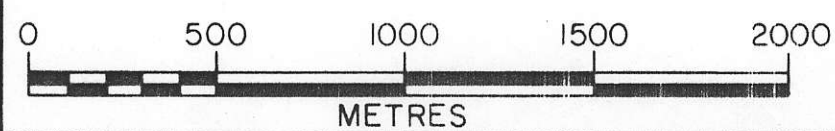


TABLE 2
Summary of Geological History - Wayside Property

Age	Geological Event
Recent (2200 a)	Volcanic ash erupted (Bridge River Ash)
	Soil development
Pleistocene (10 ka)	Glacial till and outwash deposited
	Glaciation
	Proglacial outwash
Tertiary	Uplift, erosion
	Alteration; calcite veining; faulting
Mesozoic	Uplift, erosion
	Carbonate alteration(?)
	Faulting; kink-folding in chert
	Intrusion of feldspar porphyry
	Quartz veining in chert; calcite veining
	Folding; low grade metamorphism
	Deposition of shallower-water sediments: (Hurley Formation) Limestone/conglomerate Sandstone/argillite
	Intrusion of quartz diorite(?) (source of clasts in conglomerate)
	Bralorne Intrusives (Jurassic)
Paleozoic	Deposition of deeper-water sediments: Chert/argillite (Fergusson Formation)
	Eruption of submarine basaltic volcanics (Pioneer Formation)

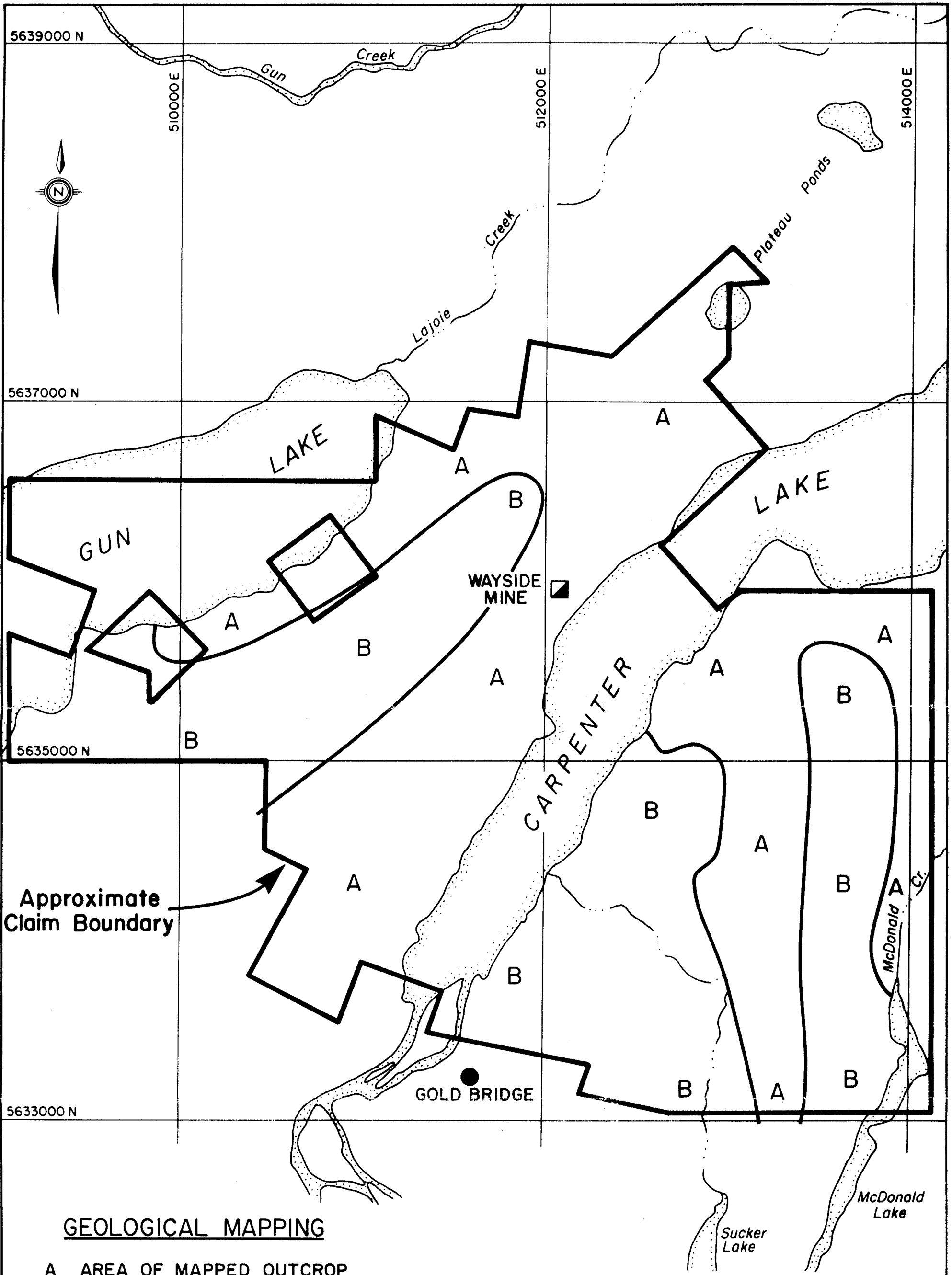


- LEGEND**
- BEDDED ROCKS**
- 1 FERGUSON (Chert)
 - 2 PIONEER (Greenstone)
 - 3 HURLEY (Sediments)
- INTRUSIVES**
- a PRESIDENT (Serpentine)
 - b BRALORNE (Diorite)
 - c DYKE (Feldspar Porphyry)
 - d DYKE (Felsite - Albite)
 - f DYKE SWARM (Hornblende - Feldspar Porphyry)



adapted from: Church, et al 1987
and McAllister, 1988

AMAZON PETROLEUM CORP.		
WAYSIDE PROPERTY		
GEOLOGY		
BEACON HILL CONSULTANTS LTD.		
Date: Apr. '89	Design: R.J.M.	Mining Engineers
Drawn By: DS	Scale 1:20000	FIGURE 7



GEOLOGICAL MAPPING

A AREA OF MAPPED OUTCROP
B AREA OF LIMITED OUTCROP

0 500 1000 1500 2000
METRES

AMAZON PETROLEUM CORP.		
WAYSIDE PROPERTY		
SUMMARY OF GEOLOGICAL MAPPING		
BEACON HILL CONSULTANTS LTD.		
Date: Apr. '89	Design: R.J.M.	Mining Engineers
Drawn By: DS	Scale: 1:20000	FIGURE 8

GEOCHEMISTRY

Survey Types

The most comprehensive geochemical exploration on the property was completed by Chevron Minerals Ltd. in 1987 (Dick et al., 1988). Table 3 provides a summary of the various geochemical surveys completed on the property while Figure 9 is a map presentation of the coverage.

Biogeochemistry

In 1986, Tolbert completed a biogeochemical study on Douglas Fir on the North End of the property. The survey was an attempt to trace the Two Bob vein system which carried up to 0.07 oz Au/ton.

The survey used the existing grid from the 1984 Geotronics survey with a sample spacing of 20 meters. Douglas Fir branches representing five years growth were collected, mulched, mixed and pelletized. Chemex Labs Ltd., of North Vancouver, analyzed for gold, arsenic, antimony, bromine, tantalum, thorium, and uranium by Neutron Activation.

Results from the study showed the following:

	Anomalous Population	Area
Gold	> 0.95 ppb and > 1.6 ppb (two populations)	Anomalous downhill from the discovery trench 86-5.
Arsenic	> 1.5 ppm	Correlates with anomalous gold areas.
Antimony	> 0.6 ppm	Possible correlation with gold and arsenic.

Soil Geochemistry

Soil sampling has been carried out on the Wayside property since 1974 (Table 3). Lamble's work was confined to the north and northwest side of the main highway and shows no important anomalies. Ostensoe and Seraphim (1983) used soil sampling to help locate the Commodore vein system. The most anomalous sample (620 ppb) was from the Level No. 1 dump. The grid area appears to be too far to the northeast to locate the strike extension of the Commodore vein.

In 1984 Geotronics completed a grid controlled soil sampling program on the North End of the property. Their geochem and coincident VLF - EM anomalies led to the discovery of the Two Bob vein in 1986.

Morris (1985) completed soil sampling in two areas, the Wayside shear and the New Discovery area. On the Wayside shear, an anomalous area was extended to the northwest. The northeast contact of the Wayside diorite was also shown to be anomalous. Soil sampling in the New Discovery area located numerous anomalous areas, many of which were followed up with trenching.

Geotronics (1985) completed limited soil sampling on the southeast side of the property. The samples were collected from the uphill (southeast) side of the access road.

In 1987, Chevron Mineral Ltd. completed extensive soil sampling over a large portion of the property. Figure 9 shows that up to 50% of the northwest side of Carpenter Lake was sampled though only about 20% of the southeast side of the property was sampled. Sample lines represent contours which were controlled by east-west cut lines.

Lithogeochemistry

There has been no systematic lithogeochemical programs completed on the property to date. Rock samples have been collected during mapping and prospecting, trenching, and diamond drilling, and only the economically important elements studied.

Discussion

The biogeochemical survey completed in 1986 was effective in locating the known anomalous areas and also indicated an extension to the north. Cooke and Barakso (1987) used biogeochemistry to explore for similar geological targets on the Howard vein system approximately 2 km to the northeast. Their survey indicated that low order Au, Sb, Ag, and As anomalies were detectable over 10 m of overburden, up to 100 m from subcropping gold mineralization.

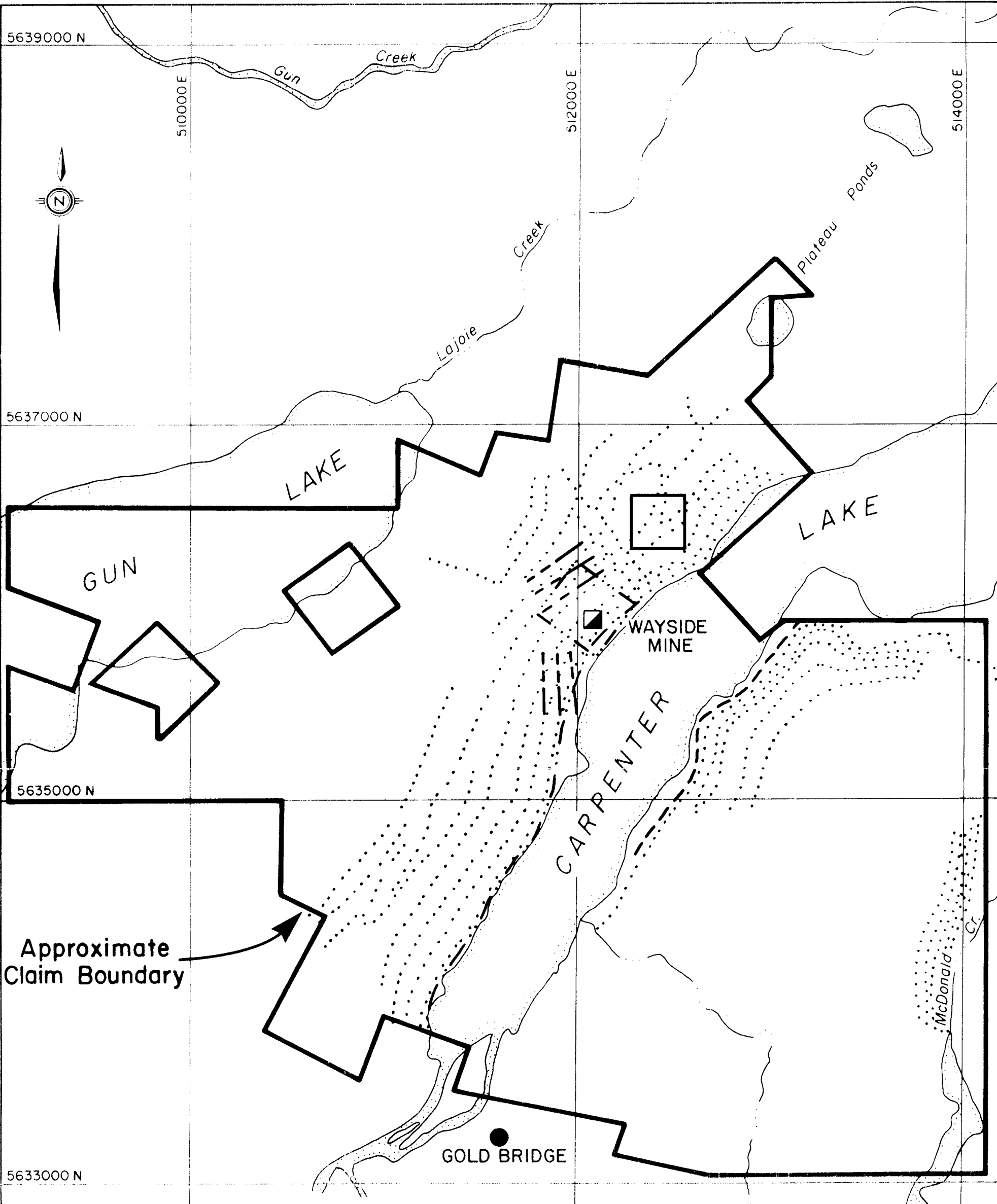
Soil sampling has been used extensively in the Bridge River camp and is considered an effective tool in exploration. Two important factors influence soil geochemistry in the area; firstly, the Bridge River volcanic ash horizon which is up to one meter thick, and secondly, the deposit type being looked for is highly erratic and discontinuous. Successful follow-up exploration in the camp had often been on single sample anomalies.

Lithogeochemical studies have not been reported in the Bridge River camp though detailed work at Erickson gold (Skethchley, D.A. and Sinclair, A.J., 1987) and unpublished work by Morris on the Reliance property shows that associated elements (K, Ba, B, As, Cu, Zn, Sb,) can be used to identify mineralized horizons.

TABLE 3

Summary of Geochemical Surveys

Year	Author	Survey	Description
1973	Lammle	110 soil samples along the highway between the Wayside mine and the Southwest area.	Analyzed for gold only.
1983	Ostenoe & Seraphim	282 soil samples over the Wayside diorite body and onto Bridge River Group to the west.	Analyzed for gold only.
1984	Geotronics	Soil samples over Cadwallader Group sediments at the North End.	Analyzed for arsenic and antimony only.
1985	Morris	324 soil and rock samples. Detailed sampling over isolated areas, Wayside shear, and the New Discovery area.	Multi-element analysis plus gold.
1985	Geotronics	Soil samples on the southeast side of the property, following the road.	Analyzed for arsenic and antimony only.
1986	Stokes & Tolbert	69 biogeochemical samples on the Two Bob zone, North end.	Gold, arsenic, antimony, bromine, tantalum, thorium, and uranium were analyzed by Neutron Activation.
1987	Dick et al.	1,440 soil samples on grid and contour controlled lines. Coverage over approximately half of the northwest side of Carpenter Lake as well as limited sampling in the southeast area.	Multi-element analysis plus gold.



LEGEND

- 1973 LAMMLE
- .-.- 1983 OSTENSIE & SERAPHIM
- 1984 GEOTRONICS
- 1985 MORRIS
- - - 1985 GEOTRONICS
- 1986 BEACON HILL CONSULTANTS LTD.
- 1987 CHEVRON MINERALS LTD.

0 500 1000 1500 2000
METRES

AMAZON PETROLEUM CORP. WAYSIDE PROPERTY		
SUMMARY OF GEOCHEMICAL SAMPLING		
BEACON HILL CONSULTANTS LTD.		
Date: Apr. '89	Design: R.J.M.	Mining Engineers
Drawn By: DS	Scale: 1:20000	FIGURE 9

GEOPHYSICS

Survey Types

Numerous geophysical surveys have been conducted over the past fifteen years. Table 4 and Figure 10 summarize the survey type and area covered by each.

IP Surveys

Two small IP surveys have been carried out by Geotronics, one in the New Discovery area, and the other in the southeast area. Three anomalies were located in the New Discovery area and have been tested by either drilling or trenching. In the southeast area, one anomalous area was discovered. It is also geologically anomalous.

EM Surveys

Several important EM surveys have been completed on the property. Geotronics (1984) covered a portion of the North End of the property and their coincidental VLF-EM and geochemical anomalies led to the discovery of the Two Bob vein in 1986.

White (1984) completed a time domain EM survey in the New Discovery area which identified numerous anomalies, many of which since have been tested by drilling or trenching.

During 1987 and 1988 Chevron Minerals Ltd. completed extensive VLF-EM surveys over a large portion of the property. On the northwest side of Carpenter Lake approximately half of the property was covered, while in the Southeast area approximately 30% of the area was covered. All of the data was tested by the Fraser filter technique. The plotted data shows zones which trend northwest-southeast which represent known faults as well as unexposed structures.

Magnetometer Surveys

Chevron Minerals Ltd. completed a magnetic survey which measured total field strength. Results showed that most lithologies are quite flat magnetically, except for the serpentinites along major fault zones. Within the Wayside diorite body, a few lesser anomalies occur which have not been explained. These data, combined with the VLF-EM, indicate that the southwest diorite body has been affected by a number of large structural features relative to the Wayside diorite, and that the geology there is much more complex.

Seismic Survey

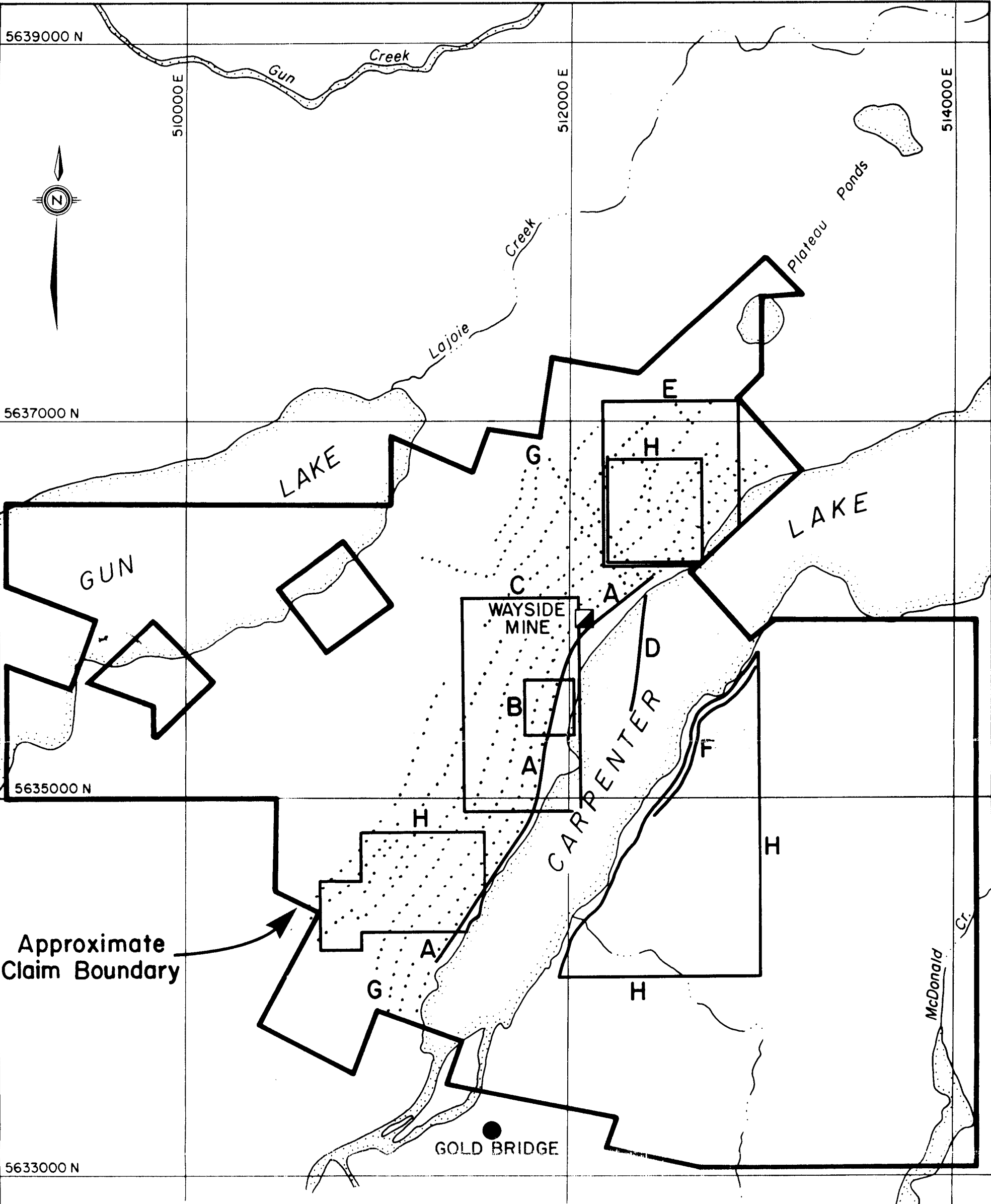
Geotronics (1984) completed a seismic refraction survey along the dry bed of Carpenter Lake from the No. 5 adit to the river, a distance of approximately 0.5 km. The depth to bedrock varies from 40 to 135 m although there is a pronounced bench with 40 m of cover from the lake shore to approximately 120 m out.

Discussion

The most comprehensive geophysical work completed on the property was by Chevron Minerals Ltd. The VLF-EM surveys have successfully mapped zones of anomalous conductivity which in some cases have been correlated with known shear zones.

The magnetometer survey has shown that the distribution of ultramafic rocks is more extensive in the Southwest area than indicated by geological mapping. It has also delineated the Cadwallader Fault bounding the west edge Wayside diorite body.

Within the Bridge River camp VLF-EM surveys have been successful in locating anomalous geological features including mineralized shear zones and dykes. Because the exploration target is dominantly structural and can be hosted by any of the lithologies present on the property, it is recommended that all anomalous areas be checked in the field.



LEGEND

- A — 1974 MAG SURVEY
- B □ 1981 IP SURVEY
- C □ 1984 TIME DOMAIN EM SURVEY
- D — 1984 SEISMIC REFRACTION SURVEY
- E □ 1984 VLF-EM SURVEY
- F — 1985 IP, RESTIVITY SURVEY
- G 1987 VLF-EM, TOTAL MAG SURVEYS
- H □ 1988 VLF-EM SURVEY



AMAZON PETROLEUM CORP. WAYSIDE PROPERTY		
SUMMARY OF GEOPHYSICAL SURVEYS		
BEACON HILL CONSULTANTS LTD.		
Date: Apr. '89	Design: R.J.M.	Mining Engineers
Drawn By: DS	Scale: 1:20000	FIGURE 10

TABLE 4

Summary of Geophysical Surveys

Year	Author	Survey	Description
1974	Lammle	Magnetometer survey along the highway between the Wayside mine and the Southwest diorite.	
1981	Geotronics	IP and SP over the New Discovery Area.	
1984	Geotronics	Seismic refraction survey along the northwest shore of Carpenter Lake.	
1984	Geotronics	VLF-EM on the north end of the property, 10.9 line km as well as 2.1 km on the southwest side of Carpenter Lake.	
1984	White	Downhole EM logging of D.D.H. 84-03, the New Discovery area.	
1984	White	Time domain EM survey in the New Discovery area, covering an area 1200 m by 600 m.	
1985	Geotronics	IP and resistivity survey on the southeast side of Carpenter Lake.	
1987	Dick et al.	VLF-EM and total field magnetics over approximately half of the northwest side of Carpenter Lake, approximately 27 km.	
1988	McAllister et al.	VLF-EM, approximately 34.9 km in three areas, the North End, the Southwest diorite, and the Southeast side.	

DRILLING

Wayside Diorite

Two targets within the Wayside diorite body have been explored: the Wayside shear and vein system, and the Commodore vein. These areas have been tested by 29 drill holes (Table 5) and considerable trenching has been done.

The majority of the drilling on the Wayside shear and vein system has been confined to approximately 200 m of strike length, from the No. 5 adit and to the southeast. Holes 88-10 and 88-11 tested the shear at higher elevations, approximately 400 m and 200 m northwest of the No. 5 adit, respectively.

All drilling on the Commodore vein has been confined to some 150 m of strike length, southeast of the Commodore adit.

Southwest Diorite

All eleven holes drilled within the southwest diorite were completed by Chevron Minerals Ltd. in 1987 and 1988. The drill targets were, for the most part, geophysical anomalies, which had been previously trenched and sampled wherever possible. Table 5 lists the holes in the area.

North End

Five holes have been drilled in the North End: four holes within the Two Bob vein system, and the fifth hole was located approximately 350 m to the east.

The drilling within the Two Bob vein system was preceded by detailed geochemistry, geophysics and trenching. The four holes cover a strike length of approximately 150 m.

New Discovery Area

Twenty holes have been drilled in the New Discovery area over a strike length of approximately 650 m. The holes were designed to follow-up a massive pyrite exposure on the highway. Fourteen of the holes are within 200 m of the showing, while the remaining six holes tested for extensions to the north and south.

Discussion

Of the fourteen holes drilled on the Wayside shear and vein system, there are two very important intercepts. Hole 80-10 returned 2.63 oz Au/ton over 3 m, and hole 87-1 intercepted of 1.84 oz Au/ton over 1.6 m. Hole 87-1 was drilled to duplicate hole 80-10. Drill hole 88-9 was designed to explore the same structure, but was drilled approximately 80 m from hole 87-1, along strike to the southeast.

Of the fifteen holes drilled on the Commodore vein, the first three produced important results. Drilling since 1980 has failed to duplicate the higher grade intercepts.

Within the Southwest diorite body eleven holes were drilled to follow-up VLF-EM anomalies. While numerous altered zones were intercepted no high grade results were returned.

The North End of the property hosts a major shear-vein system which has been extensively trenched since 1985. Four holes were drilled to test this structure, and each hole intercepted highly anomalous zones, although no high grade results were returned.

The New Discovery area hosts a massive sulphide body. Drilling has located important copper-zinc mineralization as well as a 0.9 m intercept of 0.125 oz Au/ton.

Because of the highly erratic nature of the gold mineralization, drill hole data must be studied very closely. Within the Bridge River camp, a successful procedure has been to follow-up important intercepts with closely spaced drill holes.

TABLE 5 - SUMMARY OF DRILLING

HOLE NO.	AZIM	DIP	LENGTH (m)	DESCRIPTION
WAYSIDE DIORITE - WAYSIDE VEIN				
79-S-7	240	-55	17.1	Two veins intersected - no significant assays
79-S-8	240	-80	21.6	Quartz veins at 4.6 - 5.2m, 17.2 - 20.1m, 20.6 - 21.2m, 20.6 - 21.2m - 0.005 oz Au/ton, 0.11 oz Ag/ton
79-S-9	270	-80	26.8	17.7 - 18.3m - 0.52 oz Au/ton, 0.14 oz Ag/ton 20.7 - 24.1m - 0.03 oz Au/ton, 0.08 oz Ag/ton 29.1 - 30.2 m - 0.15 oz Au/ton, 0.09 oz Ag/ton
80-S-10/ 81-S-10	215	-56	381.3	208.8 - 213.4m - Quartz vein; 208.8 - 211.8m - 2.63 oz Au/ton, 1.02 oz Ag/ton
81-S-11	235	-60	233.8	229.8 - 232.9 m - Quartz vein - 0.003 oz Au/ton
84-WS-1	240	-60	236.8	211.8 - 214.9m - Quartz veining, alteration 211.8 - 212.6m - 0.018 oz Au/ton
84-WS-2	238	-60	45.7	Abandoned in overburden
84-WS-2a	238	-65	51.8	Abandoned in overburden
84-WS-6	213	-78	216.4	No significant assays
84-DO-11	44	-80	52.4	No significant mineralization
87-1	212	-53	274.6	179.4 - 181.0m - 1.84 oz Au/ton 95% recovery
88-9	218	-75	260.3	165.9 - 169.8m - 0.055 oz Au/ton 177.5 - 178.9m - 0.018 oz Au/ton 191.1 - 191.6m - 0.015 oz Au/ton
88-10	220	-80	88.4	54.1 - 56.1m - 0.008 oz Au/ton
88-11	250	-65	278.0	255.1 - 257.9m - 0.006 oz Au/ton

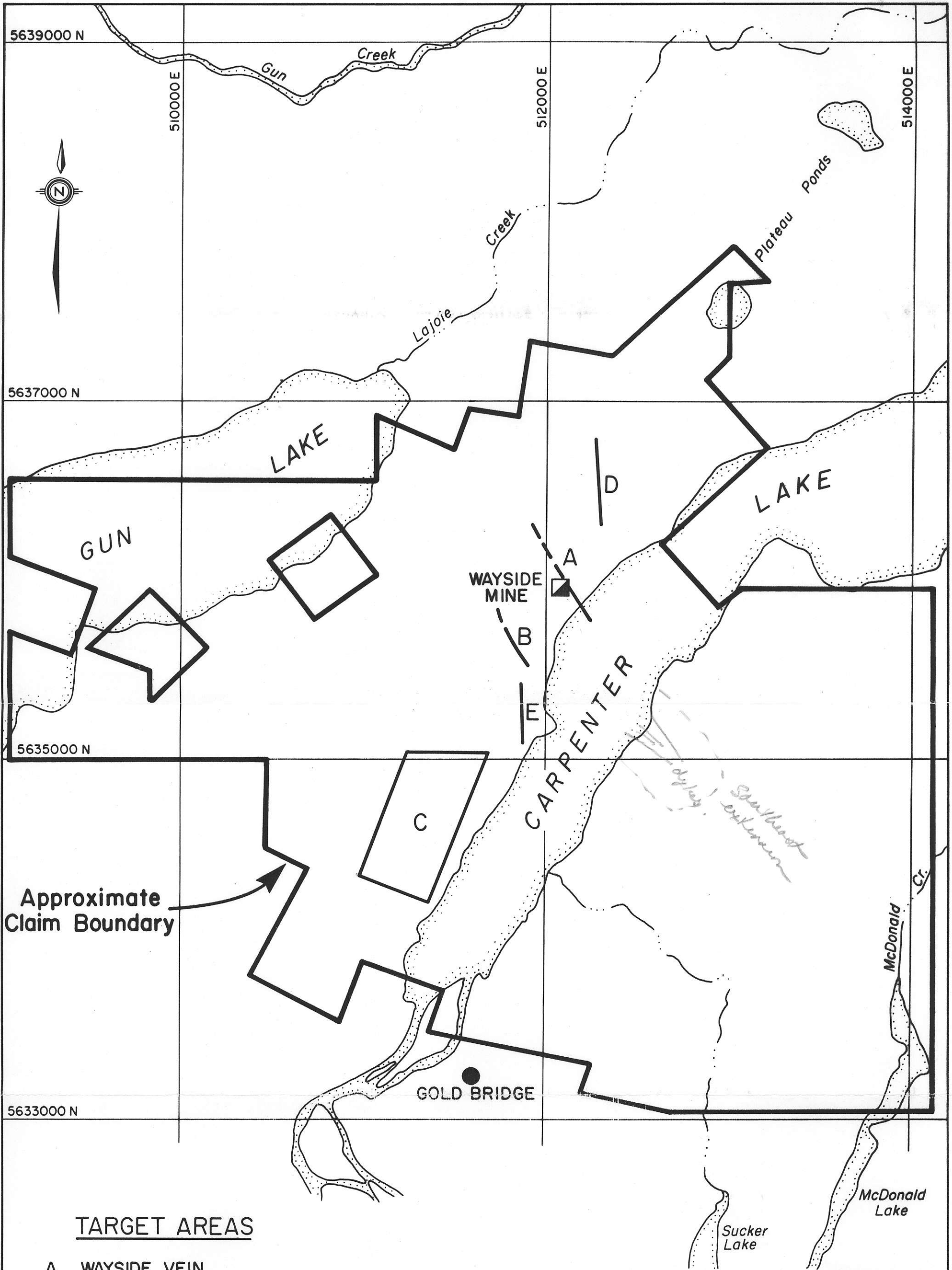
HOLE NO.	AZIM	DIP	LENGTH (m)	DESCRIPTION
WAYSIDE DIORITE - COMMODORE VEIN				
75-A-1	230	-74	27.4	23.2 - 25.30m - 0.95 oz Au/ton
75-A-3	215	-60	39.3	Caved, abandoned
75-A-5	220	-70	65.2	38.7 - 39.6m - 0.02 oz Au/ton 39.6 - 40.5m - 19.61 oz Au/ton
79-S-1	230	-74	29.6	26.2 - 27.1m - 1.58 oz Au/ton, 0.54 oz Ag/ton Avg. - 25.0 - 27.1m - 0.695 oz Au/ton, 0.44 oz Ag/ton
79-S-2	200	-70	29.0	29.8 - 26.2m - 0.666 oz Au/ton
79-S-3	230	-45		Abandoned in overburden
79-S-4	240	-60	232.9	No significant assays
79-S-5	240	-60	218.2	65.8 - 67.1m - 0.012 oz Au/ton, 0.06 oz Ag/ton
83-B-1	270	-55	32.3	9.1 - 10.5m - 0.005 oz Au/ton only 33% core recovery
83-B-2	240	-55	35.3	29.7 - 31.4m - 0.012 oz Au/ton only 66% core recovery 29.6 - 30.8m - 0.064 oz Au/ton sludge sample
83-B-3	225	-75	43.9	39.01 - 39.32m - 0.018 oz Au/ton 39.01 - 39.32m - 0.022 oz Au/ton sludge sample
83-C-8	220	-70	40.8	No significant assays
84-C-9	270	-47	59.1	No significant assays
87-5	281	-46	93.6	22.2 - 22.6m - 0.009 oz Au/ton 88% recovery
87-6	206	-47	111.9	29.2 - 29.6m - 0.025 oz Au/ton 91% recovery

HOLE NO.	AZIM	DIP	LENGTH (m)	DESCRIPTION
SOUTHWEST DIORITE				
87-3	205	-52	236.9	No significant assays
87-4	165	-52	66.1	34.4 - 34.8m - 0.007 oz Au/ton 99% recovery
88-13	250	-50	127.4	No significant assays
88-14	227	-50	243.2	No significant assays
88-15	217	-50	103.3	No significant assays
88-16	209	-50	293.2	No significant assays
88-17	205	-50	107.9	No significant assays
88-18	202	-50	102.4	No significant assays
88-19	217	-60	188.3	53.4 - 56.0m - 0.011 oz Au/ton
88-20	217	-80	76.2	No significant assays
88-21	37	-45	115.8	No significant assays

HOLE NO.	AZIM	DIP	LENGTH (m)	DESCRIPTION
NORTH END				
85-7	245	-45	267.0	No significant assays
87-2	226	-50	45.7	23.5 - 25.0m - 0.005 oz Au/ton 11% recovery 34.8 - 35.7m - 0.051 oz Au/ton sludge sample 35.7 - 38.7m - 0.041 oz Au/ton sludge sample
87-7	226	-50	46.6	15.3 - 15.9m - 0.051 oz Au/ton 71% recovery 18.7 - 19.4m - 0.076 oz Au/ton 95% recovery 20.3 - 20.5m - 0.039 oz Au/ton 97% recovery composite 15.3 - 20.5m - 0.025 oz Au/ton
87-8	226	-55	46.6	26.6 - 27.4m - 0.028 oz Au/ton 92% recovery 30.7 - 31.5m - 0.021 oz Au/ton 86% recovery 37.0 - 37.4m - 0.012 oz Au/ton 100% recovery 37.4 - 38.5m - 0.016 oz Au/ton 95% recovery 43.6 - 44.3m - 0.015 oz Au/ton 98% recovery
88-12	203	-55	99.4	87.8 - 88.4m - 0.029 oz Au/ton

HOLE NO.	AZIM	DIP	LENGTH (m)	DESCRIPTION
NEW DISCOVERY AREA				
75-A-2	225	-55	56.4	Discovery Hole
79-S-6	240	-60	241.1	188.4 - 203.6m - 0.895% Cu, 1.51% Zn, 0.19 oz Ag/ton, 0.004 oz Au/ton includes 193.5 - 199.9m - 1.75% Cu, 2.47% Zn, 0.32 oz Ag/ton, 0.006 oz Au/ton
80-S-1	240	-60	258.8	206.3 - 212.1m - 1.08% Cu, 2.03% Zn
80-S-2	240	-60	193.5	32.6 - 35.1m - 0.30% Cu, 0.11% Zn, 56.4 - 65.5m - 0.21% Cu, 0.05% Zn
80-S-3	250	-50	223.1	117.7 - 120.1m - 0.04% Cu, 0.02% Zn
80-S-4	250	-60	239.3	No assays
80-S-5	240	-50	234.1	203.3 - 217.6m - 0.43% Cu, 0.55% Zn, 0.08 oz Ag/ton, 0.003 oz Au/ton 220.1 - 229.8m - 0.64% Cu, 1.34% Zn, 0.27 oz Ag/ton, 0.003 oz Au/ton
80-S-8	240	-60	305.1	248.1 - 253.3m - 0.98% Cu, 0.46% Zn
80-S-9	240	-60	300.8	No significant mineralization
84-D-3	0	-90	447.7	Massive to disseminated sulphides 95.0 - 95.5m, 203.5 - 212.7m, 234.2 - 237.7m, 248.6 - 253.7m, 259.7 - 260.0m 203.5 - 210.3m - 0.88% Cu, 2.05% Zn, 0.56 oz Ag/ton, 0.008 oz Au/ton 211.2 - 213.5m - 0.37% Cu, 2.31% Zn, 0.20 oz Ag/ton, 0.002 oz Au/ton
84-D-4	55	-61	228.6	No significant mineralization
84-D-5	240	-70	294.7	265.9 - 266.4m - 1.51% Cu, 0.24% Zn, 0.06 oz Ag/ton, 0.001 oz Au/ton 267.3 - 268.2m - 0.46% Cu, 0.28% Zn, 0.02 oz Ag/ton, 0.001 oz Au/ton
84-P-7	225	-50	124.0	No significant mineralization
84-10	44	-50	30.5	No significant mineralization

HOLE NO.	AZIM	DIP	LENGTH (m)	DESCRIPTION
85-01	263	-71	150.0	109.4 - 110.0m - 0.017 oz Au/ton
85-02	273	-70	221.6	Massive to banded pyrite 3.0m - 98.5m 29.5 - 29.9m - 0.029 oz Au/ton 126.9 - 127.8m - 0.125 oz Au/ton
85-03	270	-45	76.2	No significant mineralization
85-04	270	-45	26.8	No significant mineralization
85-05	270	-45	155.4	No significant mineralization. This hole not deep enough to test the major north- south Pulse EM anomaly
85-06	270	-80	233.2	No significant mineralization



TARGET AREAS

- A WAYSIDE VEIN
- B COMMODORE VEIN
- C SOUTHWEST DIORITE
- D NORTH END (TWO BOB)
- E NEW DISCOVERY
- F SOUTHEAST EXTENSION

**AMAZON PETROLEUM CORP.
WAYSIDE PROPERTY**

SUMMARY OF DRILLING

BEACON HILL CONSULTANTS LTD.

Date: Apr. '89 Design: R.J.M. Mining Engineers

Drawn By: DS Scale 1:20000

FIGURE 11

WAYSIDE UNDERGROUND

Geology

In 1988, geological mapping and sampling was conducted in an attempt to determine attitudes, dimensions, and grades of known quartz veins and the shear zones.

The Wayside underground workings are located on the northwest side of Carpenter Lake and most of the adits are accessible by roads. The accessible areas of the following six levels were mapped and sampled; Paxton, No. 0, No. 2M, No. 3, No. 4, No. 4W, and No. 5 (Figures 12 and 13). The No. 1 and the No. 150 adits have caved and are not visible from the surface while both the No. 7 and No. 9 levels are below the level of Carpenter Lake and are currently flooded. As no active mining has taken place for over thirty years, many areas of the underground workings are inaccessible and in need of major rehabilitation.

During the 1988 underground sampling program a total of 64 rock chip samples were collected from quartz veins and shear zones in the accessible workings. In general the samples collected from hangingwall or footwall massive quartz veins returned more significant gold values than those collected from the shear zone of the Main Wayside structure. The Wayside main structure, known as the Main vein, is actually a well-developed shear zone cut by numerous narrow quartz and carbonate veinlets which is exposed on all levels. The main vein strikes 335 to 350 degrees and dips 45 to 60 degrees to the northeast. The alteration assemblage of Fe-carbonate (ankerite), quartz, sericite and minor mariposite (Cr-rich mica) is found within the shear zone and often extends up to 0.6m beyond. Native gold has been reported from the Main vein. Ore shoots seem to occur where the dips flatten out in the Main vein. The maximum gold value returned from a Main vein sample was 0.042 oz Au/ton over 0.8 m on the No. 5 level.

The Notman vein, referred to as the No. 1 Hangingwall vein in the old literature, is only seen on the No. 5 level and consists of a well-defined and continuous massive to ribboned quartz vein ranging in width from 1 to 57 cm. The Notman parallels the Main vein with strikes of 335 to 350 degrees, but has a flatter dip of 40 to 50 degrees. There is no conspicuous carbonate alteration associated with this vein. The maximum gold value of 0.559 oz Au/ton was obtained from a 0.1 m wide sample of the Notman quartz vein.

The No. 1 Footwall vein which is exposed on the No. 0 and No. 1 levels, parallels the strike of the Main vein, but has a flatter dip of 40 to 50 degrees. There is little shearing associated with this persistent quartz vein and the carbonate alteration is similar to that of the Main vein. A maximum value of 0.220 oz Au/ton over 0.2 m was returned from the No. 1 Footwall vein on the No. 0 level.

The No. 2 Footwall vein is similar to the No. 1 Footwall vein in attitude and associated alteration, but is found on the No. 2M, No. 3, No. 4W and No. 5 levels. The best gold result from the No. 2 Footwall vein is 0.127 oz Au/ton over 0.4 m from the No. 3 level.

Paxton Level

The main zone is exposed over 30 m in the Paxton adit and is a 1.2 m wide shear zone cut by one to three centimetre calcite veins and minor quartz veins. The best gold value obtained from this zone on the Paxton level is 0.031 oz Au/ton over 1.2 m.

No. 0 Level

Access was gained to most of this level. The Main vein strikes over 40 m and has been explored by two cross-cuts and one short drift. The Main vein ranges in width from 1.0 to 2.2 m and is locally limonitic and cut by 2 to 5 cm wide quartz veins. The best gold value from this zone is 0.005 oz Au/ton over 1.5 m. The No. 1 Footwall vein ranges from a 3 to 5 cm zone of subparallel quartz veins at the north end of the adit to a white ribboned quartz vein with a maximum width of 0.52 m. The highest gold value was 0.239 oz Au/ton over 0.4 m.

No. 2M Level

The drift paralleling the No. 2 Footwall vein and the cross-cuts leading towards the Main vein are the only areas of this level that were mapped and sampled. In this exposure, the No. 2 Footwall vein strikes over 100 m and ranges in width from 0.1 to 0.62 m. Mariposite has been noted in the altered wall rocks of this vein. A maximum gold value of 0.083 oz Au/ton over 0.4 m was returned.

No. 3 Level

Approximately half of the No. 3 level was accessible. The No. 2 Footwall vein strikes over 85 m and pinches out to a 0.45 m wide quartz veined shear at the south end, and to 10 cm wide quartz vein at the north. Up to 35 cm of well-ribboned quartz is exposed at the widest zone. The highest gold value was 0.127 oz Au/ton over 0.4 m.

The Main vein is only exposed in two cross-cuts of the accessible workings on this level. Here, the Main vein is highly sheared, clay-rich, cut by quartz and calcite veinlets, up to 5.1 m wide and contains minor mariposite. The best gold value obtained was 0.007 oz Au/ton.

No. 4 and 4W Levels

The No. 2 Footwall vein exposed in the 15 m of accessible workings on the No. 4W level is a 1 m wide shear zone with 4 to 30 cm wide quartz veins cutting and forming selvages of the shear. A stope extends down from this level to the exposure of the No. 2 Footwall vein on the No. 5 level. The maximum value obtained was 0.013 oz Au/ton.

The Main vein is exposed in the 45 m accessible on the No. 5 level. This limonitic clay-rich shear zone, cut by quartz calcite veinlets up to 1 cm wide, ranges from 1.2 to 1.6 m in true width. The best gold value obtained on this level from the Main vein was 0.017 oz Au/ton over 1.6 m.

No. 5 Level

The No. 2 Footwall, Main and the Notman vein are all exposed on the No. 5 level which consists of three drifts parallel these veins and numerous cross-cuts. Most of this level is accessible. The No. 2 Footwall vein is exposed over a strike length of 40 m and ranges up to 2.5 m in the south end, and pinches out to 8 cm in the north. The well-developed quartz and calcite veined shear zone of the Main zone stretches over 150 m with widths from 1 to 5 m. The Notman veins pinches out to a 1 cm wide quartz vein at the north end, and 9 cm wide quartz vein at the south. Over the 100 m exposure of the Notman vein widths range up to 0.57 m.

The most anomalous gold values were returned from the Notman, and then the No. 2 Footwall vein, with maximum values of 0.559 oz Au/ton over 0.1 m and 0.108 oz Au/ton over 1.10 m, respectively. Main vein gold values were somewhat less anomalous and ranges up to a high of 0.042 oz Au/ton over 0.8 m.

COMPOSITE PLAN

PAXTON

No.0

No.1

No.250

No.2M

No.3

No.4W

No.5

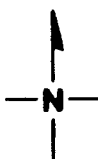
No.7

No.8

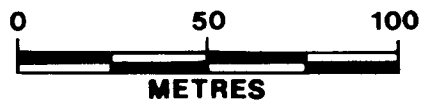
No.9

A

A'



- QUARTZ VEIN
- () STOPED AREA
- == DRIFT OUTLINE



GOLD BRIDGE

Highway

AMAZON PETROLEUM CORP.
WAYSIDE PROPERTY

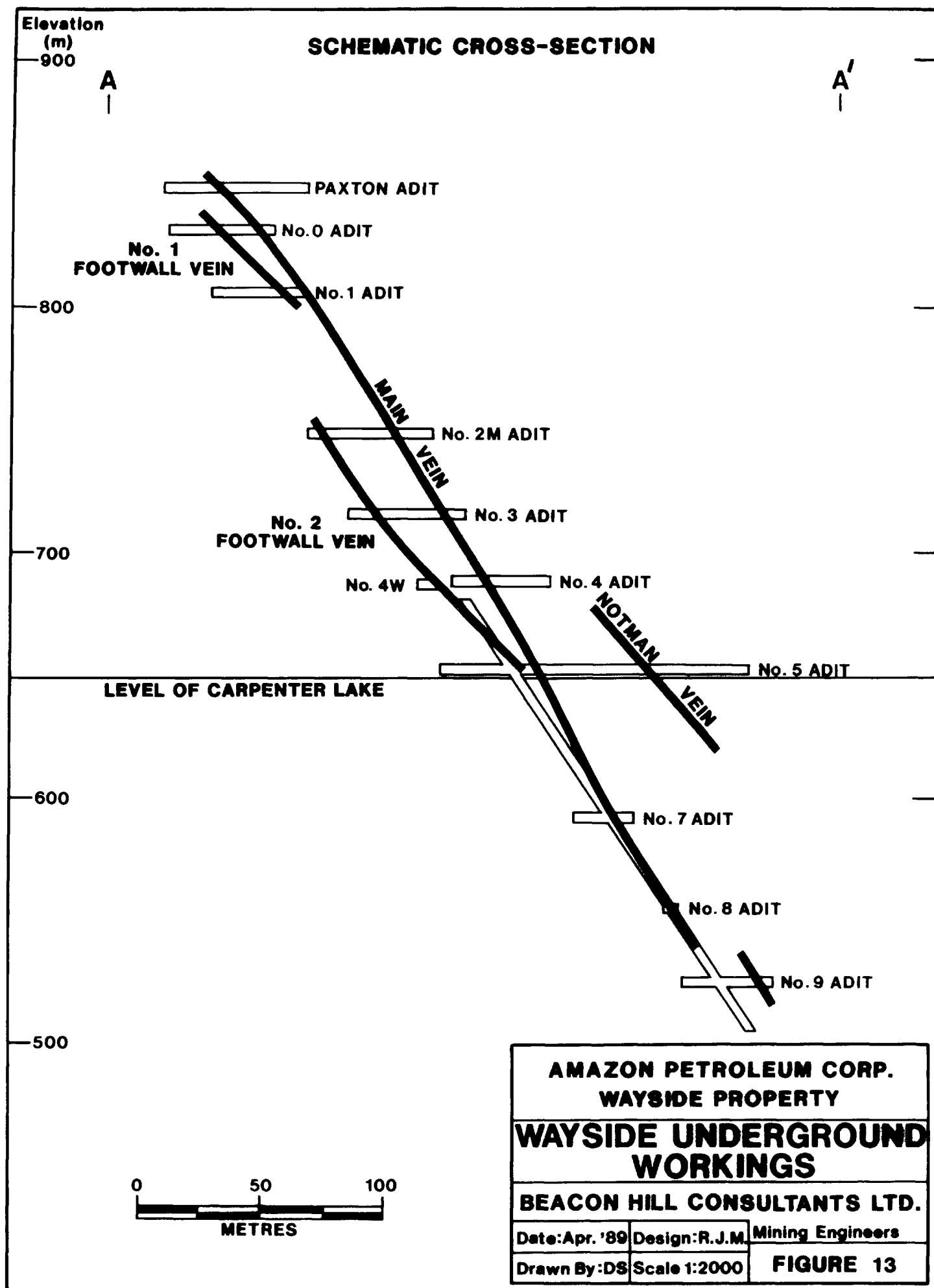
WAYSIDE UNDERGROUND WORKINGS

BEACON HILL CONSULTANTS LTD.

Date: Apr. '89 Design R.J.M. Mining Engineers

Drawn By: DS Scale 1:2000

FIGURE 12



EXPLORATION POTENTIAL

Gold in Diorite

A major portion of the Wayside property covers gabbros and diorites of the Bralorne Intrusives. The Wayside mine is a shear - vein system within the northern body of diorite.

The Wayside vein system has been explored by underground development on ten levels, and by fourteen drill holes. Underground exploration has tested the vein system over at least 350 m vertically and 500 m along strike. All but two of the drill holes are within 200 m of the southeast extension.

Seven hundred metres to the southeast of the No. 5 adit, directly on strike, is one of the few geological anomalies on the southeast side of the property. At this point there is a complex dyke system up to 75 m wide. A possible explanation is that the dykes occupy the same shear zone as the Wayside vein.

The west, fault, contact of the Wayside diorite body appears to truncate the Wayside vein system approximately 200 m northwest of the Paxton adit. As the Wayside veins dip to the northeast, there is potential of the system extending to the northwest, under the west, fault contact of the diorite.

The Commodore vein has been explored by trenching in the adit area and to the southeast with drilling. The potential of this vein to the southeast across Carpenter Lake and to the northwest, under the west, fault contact of the diorite, should be explored.

Within the Wayside diorite body, zones of carbonatization were observed along its eastern margin, where the diorite is juxtaposed against Hurley Formation shales. Only very locally, however, were anomalous geochemical values encountered from an extensive trenching and sampling program in 1987 and 1988. These zones comprise the old Powerline adit, the Upper Two Bob or Marcus adit areas, and John's showing. These zones represent shear/fracture-controlled alteration zones along structures which appear to splay off the main Two Bob Creek fault. This fault is characterized by a ravine following Two Bob Creek and forms the northeast contact of the diorite. The predominant alteration observed is rusty-brown carbonatization, while accompanying silicification is rare.

The Powerline adit was driven on such a splay feature. It has caved and was not inspected. The Marcus adit likewise follows a splay off of the Two Bob Creek fault. This adit was discovered during the 1987 program and was probably driven near the turn of the century. The adit crosses a carbonatized and silicified zone of shearing which is approximately 1.5 m wide. Unfortunately, no anomalous gold values were returned from this structure.

A series of heavily carbonatized shears are exposed in the Upper Two Bob or Marcus adit areas and John's showing areas. No anomalous geochem was returned from the Upper Two Bob zone. The John's showing was discovered by a highly Au-As anomalous soil sample, 0.035 oz Au/ton. The zone is characterized by intense shearing and fracturing in the diorite and by calcite veins which reach over 1 m in width. Rock chip geochem failed to return anomalies greater in tenor than the soil.

The Southwest diorite hosts two old adits (caved), both of which are driven in glacial debris.

Carbonate alteration, silicification and anomalous Au/As occurs within the southwest diorite body, and is exposed in trench 87-T-38 (0.124 oz Au/ton over 0.5 m). A short drill hole, 87-4, tested the zone but did not intersect similar mineralization.

Magnetometer and VLF-EM surveys indicated the presence of potential structures roughly paralleling the strike of the main Wayside system in the southwest diorite body. One of these potential structures was tested with drill hold 87-3, confirming the presence of a major fault, but no significant quartz veining was observed.

Gold in Volcanics and Sediments

On the North End of the property, several feldspar porphyry dykes have been located. The Two Bob zone of anomalous gold in rock consists of heavily fractured and carbonatized feldspar porphyry dyke which is fault bounded against steeply dipping shales of the Hurley Formation. There, the dyke has behaved during faulting as a frigid, brittle body into which hydrothermal fluids have been focused. This dyke system may be up to 1.5 km long while the trenching and drilling has been confined to approximately 350 m of strike length.

Geological mapping has located a major feldspar porphyry dyke approximately 500 m west of the Two Bob dyke. No work has been conducted around this intrusive.

Base Metal Massive Sulphides

The New discovery area hosts a massive sulphide body in greenstone. The occurrence is intimately associated with diorite, felsic dykes, and silicification. Between 1975 and 1985, exploration efforts attempted to extend the deposit to the north and south. Since 1985, the massive sulphide deposit was ignored and exploration work was directed to gold only.

The known massive sulphide occurrence appears to strike almost north-south and dip approximately 65 degrees to the east. The drill indicated deposit is 140 m long, 4.8 m thick, and 75 m along the dip. Using a bulk density of 2.98 tonnes/m³, a preliminary calculation indicates 150,000 tonnes at a grade of 1.76% Cu and 3.03% Zn.

Re-logging and sampling of drill core in 1987 located a banded, arsenopyrite bearing quartz vein within a fault zone in drill hole 85-2 which carried 0.125 oz Au/ton over 0.9 m.

The gold may have a close spatial, and perhaps, genetic affiliation with the base metal sulphide deposit. Hutchinson (1987) suggests the origin of gold lodes may be original sea-floor hydrothermal exhalative deposition followed by extensive metamorphic redistribution.

CONCLUSIONS

The Wayside property has been explored extensively over a number of years with detailed, systematic work being carried out for the past two years. Results compiled in this report indicate erratic gold values in the identified vein structures which is common in this type of deposit.

It is not unreasonable to expect the vein structures identified to date to extend to the northwest and also to the southeast across Carpenter Lake. In addition to the known veins, the VLF-EM conductive zones along faults bounding the Wayside diorite, and the northwest trended conductors in the Southwest area, are of particular interest.

The conductive zone containing the Two Bob vein system and its northerly and southerly extensions carries anomalous gold. This zone as well as a newly discovered dyke to the west requires further work.

The association of massive sulphides and gold mineralization, spatially, genetically, and through time, is relevant to a full understanding of the generation of both.

At least half of the property is untested by geochemistry and geophysics.

RECOMMENDATIONS

It is recommended that an exploration program be established, commencing in 1989, to further explore the Wayside property. The program should include the following:

- A) The Wayside vein system requires addition exploration, including:
 - 1) A comprehensive underground mapping, sampling, and drilling program to understand the mineralization and associated alteration;
 - 2) Follow-up drilling around hole 87-1;
 - 3) A program of seismic and VLF-EM surveys to the southeast of No. 5 adit, and to the northwest of the Paxton adit, to test for extensions of the vein;
 - 4) The Commodore and 3T veins should be tested by seismic and VLF-EM along strike both to the northwest and southeast, and;
 - 5) Trenching and perhaps drilling is warranted to explore the structural setting and accompanying carbonatization on the northeast contact of the Wayside diorite.
- B) In relation to the size of the southwest body of diorite within the claim group, it has not been adequately explored for potential mineralization. Further trenching and drilling is warranted to follow-up anomalous gold in trenching (0.124 oz Au/ton over 0.5 m), and geophysical indications of additional structures.
- C) The North End of the property deserves further trenching, geochemistry and VLF-EM. The geochemistry and geophysics should be extended to the north end of the property to cover the possible strike extension of the Two Bob vein system.

- D) The New Discovery area should be sampled in detail and the core re-logged to establish the relationship between the massive sulphides and the gold mineralization.
- E) The west and the southeast of the property should be explored to provide similar density coverage of the total property. Special emphasis should be given to geologically anomalous areas, for example, the dykes to the south of the Wayside mine.

A first phase budget is estimated at \$ 500,000 and is summarized in Table 6.

TABLE 6
EXPLORATION PROGRAM - COST ESTIMATE

Underground Rehabilitation		\$ 50,000.00
Drilling		
Underground	- 10 holes, 60 m @ \$ 100/m	60,000.00
Surface	- 15 holes, 150 m @ \$ 100/m	225,000.00
Geochemistry	- drill core, 600 samples @ \$ 25.75/sample	15,450.00
	- underground, 50 samples @ \$ 25.75/sample	1,287.50
	- soil samples, 250 samples @ \$ 15.25/sample	3,812.50
Geophysics	- VLF-EM inclusive of filtering and interpretation	5,000.00
Petrography	- 25 samples @ \$ 70/sample	1,750.00
Personnel		
Geologist	- core logging, 30 days @ \$ 400/day	12,000.00
	- mapping, 15 days @ \$ 400/day	6,000.00
	- underground, 10 days @ \$ 400/day	4,000.00
Helper	- 50 days @ \$ 75/day	3,750.00
Equipment		
Downhole Survey	- 2 months @ \$ 1,700/mth.	3,400.00
Excavator Rental	- 15 days @ \$ 1,000/day	15,000.00
Truck Rental	- 3 months @ \$ 1,500/mth.	4,500.00
Room & Board	- 3 months @ \$ 1,500/mth.	4,500.00
Reporting		20,000.00
	Subtotal	\$ 435,450.00
	15 % contingency	65,317.50
	Total	\$ 500,767.50
	Say	\$ 500,000.00

This report has been prepared by Beacon Hill Consultants Ltd., May 5, 1989.

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Associate Consultant**

**W.P. Stokes, P. Eng.,
Principal**

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APPENDIX I

History of Exploration and Development

Early work resulted in the construction of the upper four working levels of the present nine levels. A description by Kelly (1972) taken from the 1924 Minister of Mines Report on the Wayside is reproduced below and gives an idea of the type of mineralization discovered to that date:

"In the highest tunnel, the No.1 tunnel, a sample across 20 ins in the face ran 1 oz. per ton gold. It was stated that the No.2 tunnel might be on the top of an ore shoot and that the No.3 tunnel was following a slip, possibly on the footwall of the true vein. In the lowest working, the No.4 tunnel, a narrow quartz vein was reported which showed good gold values at the face. A sample across an unspecified width yielded 2.08 oz in gold and 0.5 oz in silver per ton. It was also suggested that the ground between the No.2 and No.4 tunnels be tested."

The majority of the levels were developed during the 1906-1937 period and production has been recorded as 43,094 tons from which 5,341 oz Au and 842 oz Ag was produced. Apparently, no work was carried out between 1938 and 1946.

In 1947 the mine was re-opened, de-watered and rehabilitated. Additional development occurred both horizontally and vertically with hoisting equipment being installed. Underground development produced 1000 tons of ore of which 900 tons were treated experimentally to determine a suitable metallurgical process. The mine shut down in 1953 due to legal difficulties. Details from these earlier periods of exploration are sparse. No underground geological map or assay plans have survived.

Extracts from Kelly's report follow, describing the more recent history up to 1972:

"On November 2, 1971, J.P. Elwell, P.Eng. made a progress report on the Wayside Mine property to Dawson Range Mines Ltd. The mine had been partially de-watered to a point just below the eighth level, 320 ft vertically below the No. 5 adit. The principal objective was to sample the vein on the eighth level, as previous reports had indicated that it improved in width and grade to the southeast. It was believed to form part of an important ore shoot, which had been found on the ninth level at the time of the closure of the mine."

The No.5 adit has also been re-opened and found to be in good condition as far back as the shaft. Elwell reported on a few of the other levels, some of which were in good condition and some of which showed caved areas. Dawson Range Mines was then well launched on its program of de-watering and rehabilitating the old workings of the Wayside Mine."

The Crown Granted claims covering the Wayside property, which had reverted, were acquired by Dawson Range Mines Ltd. N.P.L. (the predecessor company to Carpenter Lake Resources Ltd.) in 1971. The No.5 adit was repaired to the shaft and the mine was de-watered to the 8th level. The 6th, 7th and 8th levels were found to be in fairly good condition, and some good gold values were obtained from pillars and stope remnants. Mining had been more extensive than indicated on the old plans and there was virtually no mineable ore remaining above the 8th level to the extent of the development."

The cost of maintaining the levels de-watered became excessive with the equipment in use and the mine was allowed to flood to the 5th level as it was decided for the time being to

concentrate work on the workings above the adit level in the main mine, and to explore some of the other vein showings to the south of the main shear."

During 1972, 1973 and 1974 some bulldozer stripping, drilling, soil sampling and magnetic surveying was carried out, and in September and November of 1972, Chas. A.R. Lammle, P.Eng. conducted a program of geological mapping and check sampling and prepared a geological report with maps dated 27th November, 1974. This report designated eight targets for exploration both on the surface and from the underground workings. The surface targets included the 3T vein, Commodore vein and the New Discovery Zone.

Diamond drilling was carried out on the Commodore vein in 1975, and between 1976 - 1978 a certain amount of stripping and trenching was completed for assessment purposes with the drilling program resuming in 1979. During that year, eight holes were completed for a total of 819.5 m.

The 1980 report by J.P. Elwell indicated that a total of ten holes, total 2344.5 m, had been drilled. Eight holes (1981.7 m) had been drilled in the New Discovery Zone and two below 9th level of the Wayside underground workings.

August 31st, 1981 - Geotronics produced a report on an IP survey which indicated two anomalous zones.

February 8th, 1982 - J.P. Elwell Engineering Ltd. completed a report updating the exploration work completed from 1980 through to 1982 and also provided an update in February 1983.

October 18, 1983 - E. Ostensoe and R.H. Seraphim completed a report on geological mapping and soil sampling which indicated several weakly anomalous values of gold. Additional work was completed by E. Ostensoe and R.H. Seraphim in 1983 and reported January 23, 1985. Three short holes were drilled in the Commodore vein.

May, 1984 - Geotronics Surveys Ltd., completed a Seismic Refraction Survey.

May 28th, 1984 - L. Sookochoff prepared a report recommending an exploration program for the Wayside property.

October 1st, 1984 - A report on VLF-EM and soil geochemistry Surveys was produced by Geotronics. The report indicated several conductors, some of which had a strike length of at least 1000 m. On October 26th and November 27th, 1984 Geotronics produced further reports on the soil geochemistry surveys. The report indicated soil anomalies correlating with the VLF-EM conductive zones.

October 1984 - G.E. White produced a report outlining work completed on a surface time domain electromagnetometer survey. This report indicated detection of a new, strong, high frequency conductor that was recommended to be tested by diamond drilling.

October 1st, 1984 - A.H. Arik produced a report outlining the exploration work completed during 1984. The drilling completed under Mr. Arik's direction did not confirm previous results.

November 30th, 1984 - E. Ostensoe produced a report on the drilling of the Commodore vein. The purpose of the work was also to confirm previous results.

August 19th, 1985 - Geotronics produced a report to test two closely-parallel dowsing anomalies utilizing IP-resistivity testing on the east side of Carpenter Lake. There were no conclusive results from this work.

During 1985, R.J. Morris completed geological, geochemical and drilling work on the property, and completed a comprehensive review and report. A.H. Arik took over late-1985 to complete the drilling program. A summary report was produced by A.H. Arik dated 13th December, 1985.

In May, 1986, W.P. Stokes and R.S. Tolbert of Beacon Hill Consultants Ltd. were commissioned to compile the available data on the Wayside in report form. Their work included the preparation of an orthophoto covering part of the property, geological mapping of the northeast part of the property (Lake claims) at 1:500 scale, and a compilation and review of previous data.

Chevron Canada Resources Ltd. optioned the Wayside property in January, 1987 and completed two seasons exploration prior to dropping their option in March, 1989. Chevron's objective was to determine whether the Wayside mineralization represented Bralorne-type mineralization with similar, great depth potential. Their program was designed to determine whether other similar veins occurred on the property in addition to the known Wayside vein and consisted of:

- a) Compiling all previous information and combining these data on the same scale base maps;
- b) Preparation of a complete property orthophoto;
- c) Preparation of a geologic outcrop map for the entire property at 1:5000 and at 1:2000 scale for the northwest side of Carpenter Lake;
- d) Collection of 520 rock samples from outcrops, and trenches;
- e) Soil geochemical surveys over the Wayside and adjacent areas on the northwest side of Carpenter Lake at 25 m intervals on a controlled grid (1,440 samples). In addition, approximately 400 soil samples were collected along contour-guided traverses on the southeast side of Carpenter Lake;
- f) Geophysical surveys - both VLF-EM 16 (using Annapolis and Seattle stations) and total field magnetometer surveys were carried out on the northwest side of Carpenter Lake utilizing the same grid as the geochemical survey, and regularly spaced grids in the Two Bob and Southeast areas;
- g) Backhoe trenching and road-building, and follow-up detailed geologic mapping and sampling of trenches;
- h) Diamond drilling (3,005 m in 20 holes) including re-logging of all accessible old drill core on the property (3,227 m);
- i) Underground geologic mapping and sampling on six of the nine levels of the Wayside mine at 1:200 scale;
- j) Collection of 64 underground rock chip samples.

APPENDIX 2

DETAILED GEOLOGY

Stratigraphy

The Upper Paleozoic(?) to Triassic age Fergusson Series (Bridge River Group) consists of argillaceous to tuffaceous lithologies, cherts, argillites, minor limestones, and volcanic rocks. These rocks are widespread throughout the district. They are variably deformed and are host to a number of mineral deposits in the district including the Minto, Congress and Reliance (Figure 3).

The Fergusson Group at Wayside consists of cherts, argillite, and lesser limestone, and represent the oldest stratified rocks on the property. The rocks represent a deep water volcano-sedimentary assemblage characterized by ribbon cherts, massive cherts, fine clastic sediments, and locally, basaltic volcanics. Chert appears to be most abundant and exhibits polyphase deformation. Two broad types are recognized: massive white chert with limonite stainings, and thin-bedded grey chert (banded) with argillite partings.

Minor black argillite may also be part of the Fergusson Group. Church (1986) describes the Fergusson Group as Paleozoic in age while others suggest it is Triassic in age, from fossil evidence.

The Triassic age Cadwallader Group is comprised of the Hurley, Noel and Pioneer Formations. The Pioneer Formation consists of basaltic pillow lava, breccias, and tuffs. The Pioneer is an important host of auriferous veins at the Pioneer deposit in the southern part of the district. The Noel Formation is predominantly black argillite and siltstone. The Hurley Formation is comprised of soft brown and green argillites, siliceous and calcareous argillite, and sandstone with minor conglomerate and limestone. The Cadwallader Group is considered to have formed during a period in which island arc volcanism saw the basinal deposition of arc volcanics and ferruginous, and volcanoclastic sediments.

The Bralorne Intrusions consist primarily of medium to coarse grained, heterogeneous, diorite and gabbro with more felsic veinlets. The main body of diorite trends northwest from Bralorne to Wayside and is the most important host of auriferous veins in the camp. The diorite is everywhere in fault contact with adjacent Fergusson Group or Cadwallader Group bedded rocks. Intrusive contacts are never observed.

The Bralorne diorite and lesser soda granite crop out along on the northeast side of Carpenter Lake. The three separate bodies are everywhere in fault contact with the adjacent bedded rocks.

The northern body, (the Wayside diorite), is host to the Wayside shear zone and related veins and the Commodore vein. The southern and central bodies of diorite are poorly exposed. It would appear from the distribution of these three separate bodies that the northern and central positions have been shifted along a major northeast-trending fault away from the western diorite body, with which they were originally contiguous.

The diorite is an heterogeneous rock which appears to be gabbroic in composition but with myriadal networks of felsic granitic injections. These granitic domains occur as later injections into the mafic gabbro or as discrete bodies, the so-called soda granite. Grain size varies from very coarse to medium. The rock is unaltered except for local carbonatization associated with faulting. It does not exhibit foliation.

Small bodies of ultramafic rocks are common in the district. Their distribution relative to the major faults in the district indicate that they have been localized by these structures. In fact, the trace of many of the major faults, including the important Cadwallader Fault, can be determined by the distribution of the ultramafics. These rocks are largely serpentized and have been sheared, due to recurrent movement along the hosting structures.

Intrusive rocks of the Coast Plutonic Complex intrude all of the above units and mark the western limit of the bedded rocks. They cut the ultramafic rocks and are therefore younger.

Dykes of feldspar-porphyry, quartz-feldspar-porphyry, albitite, and hornblende porphyry composition intrude all of the above rock types and are the youngest intrusive event. There is a spatial, and therefore potentially a genetic relationship between gold mineralization and these younger intrusions in the camp.

A host of dykes crop out in the northern part of the property, in the vicinity of the Wayside diorite body. Tolbert (1986) recognized three distinct dyke types. A buff-coloured to white, fine-grained dyke which Tolbert (1986) termed felsite or albitite. It is best developed at the 3T showings near the southwest corner of the Wayside diorite body and to the north of there, and is observed in some drill core, particularly the bottom part of DDH 80-S-10. The second dyke type was observed immediately northeast of the Wayside diorite body. It is a light pink to buff-coloured feldspar porphyry dyke which trends north-south and intrudes Hurley Formation shales over an exposed length of approximately 500 m. This dyke is significant in that it behaved as a competent body and is highly fractured, carbonate-altered and weakly gold-mineralized. This forms the so-called Two Bob Zone as referred to by Tolbert (1986). This dyke is probably much more extensive than is indicated in outcrop in that a similar-trending dyke is observed on-strike to the north, adjacent to the northwest corner of the property. The third type is composed of hornblende and feldspar porphyry dykes. They are blocky, orange weathering, greenish-grey aphanitic rocks with prominent hornblende phenocrysts up to one cm long and in some locations minor feldspar phenocrysts as noted in the previous unit. Though Cairnes (1937) noted these as late stage dykes at Wayside, a hornblende porphyry dyke is intruded by a felsite (albitite) dyke, which may mean the albitite dyke emplacement occurred over a considerable period of time (Tolbert, 1986).

A major hornblende porphyry dyke swarm occurs at the north end of the Lake Claims trending in an east-west to north-easterly direction. Some of these dykes intrude the Wayside diorite body near its western contact with Fergusson Group cherts, therefore, postdating it.

Extensive glacial till and outwash deposits are present in the area, and are thickest in valley bottoms. At Carpenter Lake, a seismic profile done at low water indicates the glacial deposits exceed 100 m in thickness.

A second type of Pleistocene is the Bridge River volcanic ash which, for the most part, was deposited on top of the glacial deposit and varies from a few centimeters to over a meter in thickness. The ash is reported to be about 2200a in age.

Structure

The bedding in Fergusson Group cherts and Hurley Formation shales, is for the most part, steeply dipping and highly folded.

Northeast of the Wayside diorite body, strikes are generally north to northwest, with steep dips both to the northeast and southwest. Southwest of the Wayside diorite body, strikes and dips are highly variable and no patterns have been recognized.

The Wayside claims exhibit a high degree of faulting and these structures appear to control alteration and vein formation.

Major faults have undoubtedly played a role in the emplacement of the diorite bodies and younger cross-faults have led to the present day segmentation of the body. All contacts of the diorite, where observed, are strong fault zones. The Cadwallader Fault zone (CFZ) marks the southwest contact of the southwest body of diorite. A major east-west trending cross fault has segmented what was likely, originally, a single diorite body to its present day outcrop distribution. Thus, the western contact of the Wayside body of diorite is interpreted to be the offset CFZ. The northeast contacts of the diorite bodies are likewise faults. The VLF-EM surveys have shown that the Wayside claims contain numerous north-northwest trending structural features.

The Wayside quartz veins are spatially related to a northwest trending zone of shearing which may be a splay structure from the west-bounding fault which marks the western contact of the Wayside diorite.

Northeast of the Wayside diorite, a feldspar porphyry dyke has been intensely fractured and sheared by a north-northwest trending fault. This zone, the Two Bob Zone, is anomalous in gold and was the target for subsequent trenching and drilling.

The major east-west fault which has divided the diorite into separate bodies is probably a very young feature (Dick et al., 1988).

Alteration

Alteration of the rocks at Wayside is very local, is hydrothermal in nature, and is controlled by faults. Two types are recognized: carbonatization and silicification.

Of these, carbonatized rocks are more common and are characterized by the presence of one or more of iron-carbonate, calcite, and mariposite in diorite or feldspar porphyry dykes. Locally, as in the Wayside workings and at the northeast contact of the Wayside diorite body, massive calcite veins, up to one meter wide, cut the diorite and are controlled by local faulting. Carbonatized rocks, weathered to a dark brown-orange colour, are observed as float locally, especially in gullies near the northeast contact of the Wayside diorite and within the adjacent Hurley Formation.

Silicification is much more localized and, because of the relation between gold and quartz, of economic significance. The most significant zones of silicification occur associated with faulting within the Wayside diorite body. Two localities were observed, the Commodore zone near the southwest corner of the body, and the Wayside zone in the central part of the body.

Additionally, a highly silicified feldspar porphyry dyke occurs associated with strong north-trending faulting in the Two Bob zone.

Mineralization

The Wayside property, as discussed in the introduction, has been explored for Bralorne-type gold sporadically since the beginning of the century. Mineralization in the form of native gold in banded quartz veins was discovered at surface in what is now referred to as the Wayside Mine area. The geologic setting, morphology and mineralogy of these veins is identical to the past producing Bralorne and Pioneer mines, approximately 15 km south of Wayside.

Nine adits were driven on the Wayside vein of which six are presently, partially accessible. In addition, a -56 degrees internal winze extends from the No. 5 level to the No. 7, 8, and 9 levels. These latter levels are presently flooded. The vein system has a strike of 330-345 degrees and dips 50 to 55 degrees northeast. The adits explored a number of quartz veins which pinch and swell, are locally highly sheared, and which vary from a few centimeters to greater than one meter wide. Up to 1937, 5,341 oz of gold and 842 oz of silver were recovered from 43,094 tons of ore.

At the entrance to the Paxton adit, a quartz vein, which probably typified the material mined in the past, is exposed. It is a well banded, highly sheared quartz-calcite vein with bands of dark grey (chlorite?) and mariposite with visible flecks of native gold. Old reports indicate that values up to 2 oz Au/ton were recovered in narrow (0.5 m to 1.0 m) veins over short distances. There are a number of discontinuous veins that were explored. In addition to the veins, is a zone of intense shearing, the Wayside shear zone, which is comprised of mylonitized diorite and quartz vein fragments, indicating that shearing post-dated or at least continued after vein formation. Because of the lack of any geologic map of assay plans, little is known about the nature of the veins and shear zones along strike. It is assumed that the plunge of the stoped areas, to the southeast, reflects the plunge of the ore (Figure 12).

Earlier reports indicate that the lower, flooded levels contain veins with ore-grade gold values but, without the benefit of sample and geologic maps, little can be said of the relevance of these data.

The quartz veins are enveloped by locally strong carbonate alteration, including the development of mariposite. These zones are narrow, from a few centimeters to about a meter.

Both the Commodore and 3T vein structures were first explored by short adits sometime in the past. The 3T adit is caved at the portal and was not inspected. It is reported that gold values were obtained from a silicified zone which occurs at the contact of an albitite dyke with host diorite.

The Commodore adit was not examined in detail. Rather, trenching and drilling were performed on the southern extension of the structure. The vein was exposed at surface by trenching in about 1975 and the trench was reopened, mapped, sampled and drilled in 1987. Early reports state that values as high as 19 oz Au/ton over a one meter width were recovered in drilling (D.D.H. 75-A-5) although these cores are not on the property.

Both the Commodore and 3T zones sub-parallel the strike of the Wayside zone. The Commodore zone comprises a quartz vein varying in width from 0.3 to 1.0 m, exposed along strike for approximately 10 meters. Wallrocks are variably carbonatized and locally charged with heavily disseminated arsenopyrite, and the silicification zone swells to approximately 2 m side where the main Commodore vein intersects a cross structure.

The North End area hosts the Two Bob anomaly. The occurrence is 200 m east of the Two Bob fault which marks the northeast contact of the Wayside diorite with the Hurley Formation shales.

The anomaly is within and peripheral to a quartz feldspar porphyry dyke which intrudes the steeply dipping shales at a high angle. The dyke is up to six meters wide, and has sheared margins which have been silicified and carbonatized. Mariposite is noted locally, and can form a significant percentage of the rock.

Detailed geologic mapping of the trenches in the Two Bob zone and three drill holes into the zone show that carbonatization and silicification occurs predominantly within the dyke and adjacent to its margins. Silica occurs as pods and lenses, locally cementing brecciated fragments of carbonatized dyke. Pyrite and arsenopyrite are noted locally. It appears that the intensely altered dyke behaved as a competent body within the incompetent shales. The tendency of the dyke to fracture during faulting has focused hydrothermal fluids in the dyke rather than the enclosing shales.

Geochemical values up to the 0.058 oz Au/ton range were obtained from trench samples, and up to the 0.117 oz Au/ton range over one meter width drill cores. Arsenic values are highly anomalous, up to 2715 ppm in drill core (DDH 87-7) and 1725 ppm in trench number 10 over one meter widths.

The Two Bob mineralization is significantly different in geologic settings from the diorite-hosted veins on the claims. The width and intensity of alteration, however, make it a prime target for follow-up work.

The New Discovery area covers basalt hosted massive sulphide zones. The occurrence was first discovered while the main highway was being widened in 1974. On surface the showing is massive pyrite in vesicular basalt which is erratically anomalous in copper, zinc, gold, and silver.

The first hole was drilled in 1975, and between 1979 and 1985, 20 holes were completed in an attempt to delineate and extend the mineralization.

The zone strikes north-south and has an east dip of 65 degrees. One well-tested body is 140 m long and 4.8 m thick and has been tested for 75 m of dip length. Using a bulk density of 2.98 tonnes/m³, a preliminary calculation indicates 150 000 tonnes at a grade of 1.76% Cu and 3.03% Zn.