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GEOLOGICAL REPORT
OLYMPIC - KELVIN PROPERTY
MELLISSA (2023) AND MELLISANDE (1246) M.Cs.
HEPZIBAH M.C. (1336) AND REV. C.Gs.

GOLDBRIDGE AREA B.C., LILLOOET M.D.
LAT. $50^{\circ}53'$ N., LONG. $122^{\circ}44'$ W.
MAPSHEETS 92J 15E,W.

FOR:
MR. AND MRS. D.B. INGRAM
P.O. BOX 1219
LILLOOET, B.C.

BY:
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GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,139

APRIL 25, 1983

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GEOLOGICAL REPORT
OLYMPIC - KELVIN PROPERTY
GOLDBRIDGE, B.C.
LILLOOET M.D.

INTRODUCTION:

Discovery of significant gold showings on the HJ claims of Andaurex Resources Ltd. has led to renewed interest in other mineral properties in the area. The present report describes numerous showings on the claims which were originally known as the Olympic and Kelvin properties, and presents work done by the writer in August 1982. A great deal of historical information is provided in the appendix, although costs incurred relate only to work done in 1982.

LOCATION AND ACCESS:

The claims are located on the south shore of Carpenter Lake, 10 km. due east of Goldbridge, B.C., a small community at the junction of Bridge and Hurley Rivers, 165 km. north of Vancouver and 80 km. west of Lillooet. The claims can be reached by road from Vancouver and Lillooet via Pemberton and Duffy Lake (4 hrs. driving time) or via Hope and Lytton (5 hrs.). An alternate, but rough and summer road only crosses Railroad Pass to Hurley River via Pemberton Meadows. The claims cover the steep north facing slope of the lake from lake level (2,145 ft.) to 5,500 ft. at the south boundary. Snowfall is heavy in winter but weather is moderately dry in summer. Most showings are near lake level, but those at higher elevations are reached by four wheel drive mining road traversing the property.

Supplies, services and labor are available in Lillooet. Timber suitable for mine supports is available on the claim. Abundant water for drilling is available from several steep creeks.



OLYMPIC PROPERTY

GEOLOGIC TERRITORY
 B.J. BIRCH, 1950
FERLOW

Barry Ince

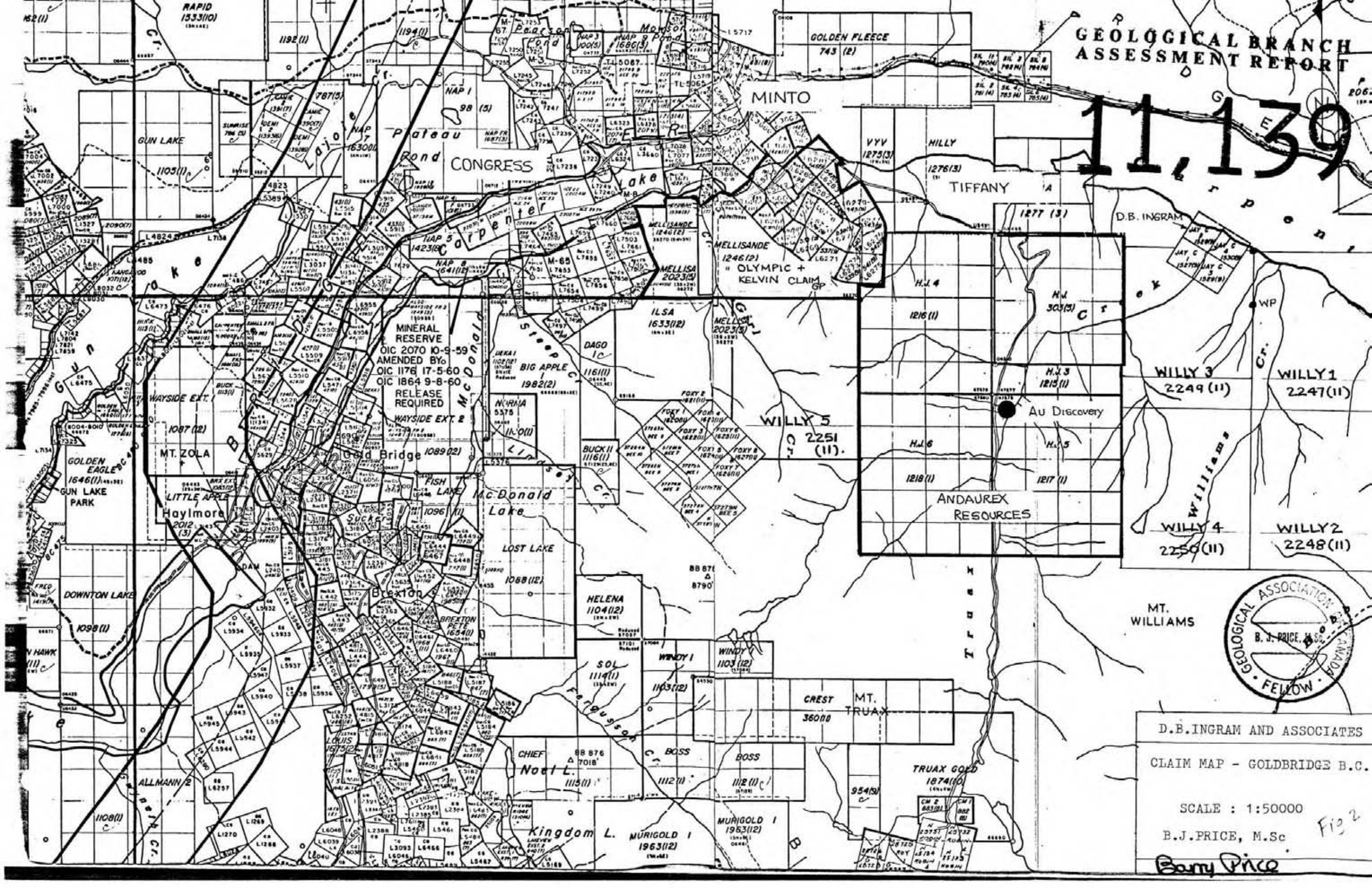
D.B. INGRAM AND ASSOCIATES

FIGURE 1 A

LOCATION MAP - SOUTHERN B.C.
 AND
 MAJOR GOLD DEPOSITS

0 20 40 km

11,139



MINERAL RESERVE
OIC 2070 10-9-59
AMENDED BY
OIC 1176 17-5-60
OIC 1864 9-8-60
RELEASE
REQUIRED

WILLY 5
2251 (II)

ANDAREX
RESOURCES

Au Discovery

WILLY 3
2249 (II)

WILLY 1
2247 (II)

WILLY 4
2250 (II)

WILLY 2
2248 (II)



D.B. INGRAM AND ASSOCIATES
CLAIM MAP - GOLDBRIDGE B.C.
SCALE : 1:50000
B.J. PRICE, M.Sc.
Barry Price

Fig 2

CLAIMS:

A complete list of claims is provided as follows:

Modified Grid Claims:

<u>Claim</u>	<u>Rec. No.</u>	<u>Units</u>	<u>Exp. Date</u>
Mellissa	2023	6	May 11
Mellisande	1246	15	Feb. 25
Hepzibah	1336	<u>1</u>	May 20
	Total	22 units	

Reverted Crown Grants:

<u>Number</u>	<u>Name</u>	<u>Rec. No.</u>	<u>Exp. Date</u>
L5605	Alpha 1)	813	July 3/
L5712	Alpha 2)		
L5713	Alpha 3	893	Sept. 17/
L6265	Alta 1	695	Nov. 8/
L6266	Alta 2	696	Nov. 8/
L6267	Alta 4	697	Nov. 8/
L6268	Alta 3	704	Nov. 23/
L6269	Alta 6	535	Sept. 19/
L6270	Alta 5	536	"
L6271	Alta 8	537	"
L6272	Alta 7	538	"
L6273	Hillside 1	539	"
L6274	Hillside 2	540	"
L6275	Hillside Ext. 4	541	"
L6276	Hillside Ext. 3	542	"
L6277	Hillside 3	543	"
L6278	Hillside 5	544	"
L6279	Hillside 6	545	"
L6280	Hillside 7	698	Nov. 8/
L6281	Hillside 8	546	Sept. 19/
L6282	Alta 1 Fr.	699	Nov. 8/
L6283	Alta 2 Fr.	<u>547</u>	Sept. 19/
	Total	21 claims	

REGIONAL GEOLOGY:

The entire south side of Carpenter Lake is underlain by interbedded volcanics and sediments of the Bridge River (Ferguson Group) of Middle Triassic age, as is shown on the accompanying geological map. The assemblage is described in detail by Cairnes (1937) and more recently, by Pearson (1974).

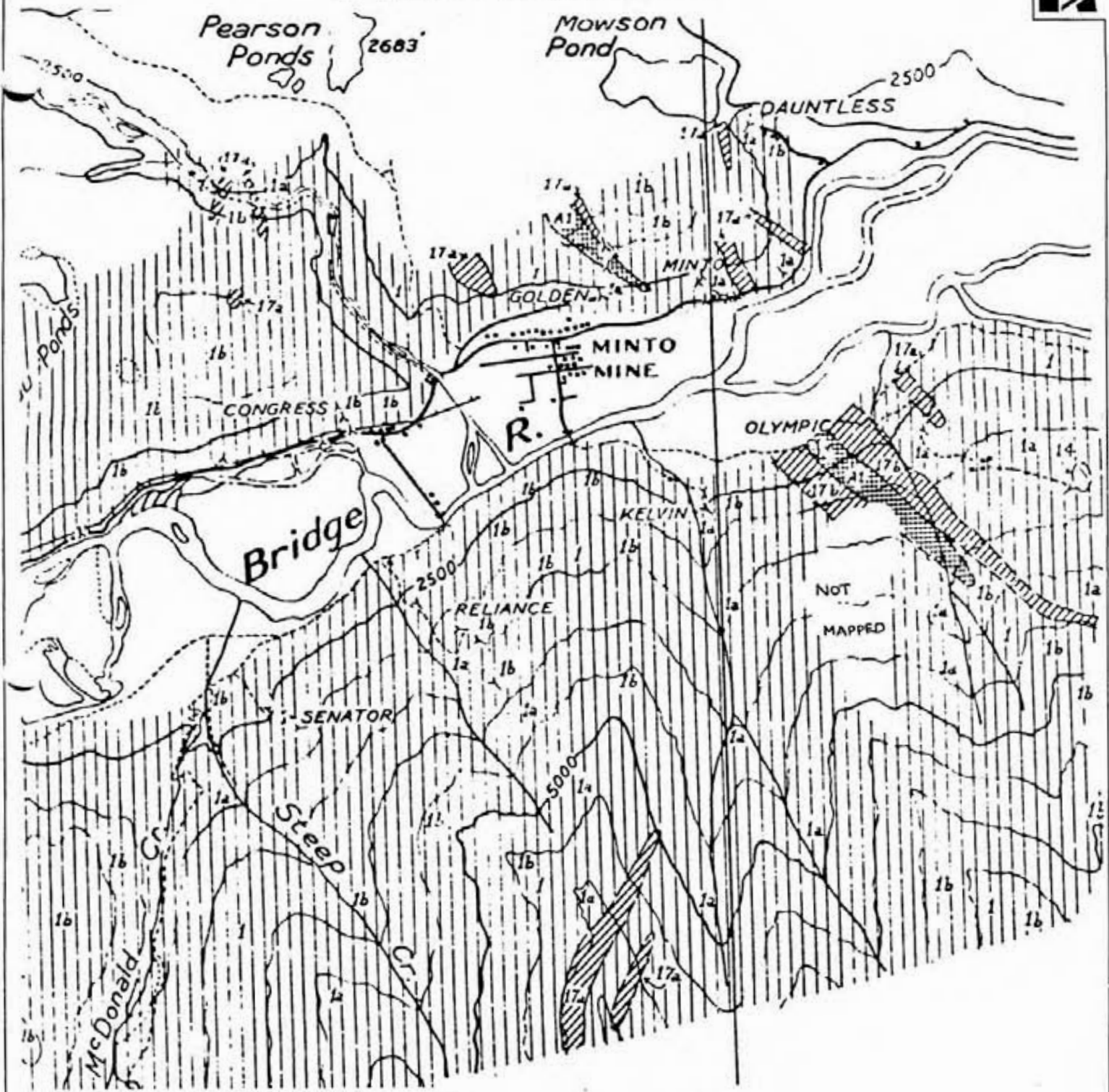
The highest portion of the Bendor Range south of the property is underlain by several lobes of the Bendor Pluton, a granodioritic body of probable Early Cretaceous age. A broad halo of hornfelsing surrounds the pluton.

The Bendor Pluton is flanked to the west by the "Cadwallader break", a regional fault with associated sheared serpentine bodies. This pronounced feature can be traced southeastward across Duffy Lake area to Fraser River, where it may merge with, or be offset by the Fraser Fault system. Several significant gold-silver deposits are associated with the feature, the best known is the quartz vein system within the Bralorne and Pioneer Mines.

Similar regional faults with ultramafic bodies are the Yalakom Fault and the Tyaughton Faults, 10 and 30 km. to the northeast; as yet only mercury deposits have been found along these features.

The Ferguson Group includes pillowed basalts, cherts, brown weathering argillites, and lensoid limestone bodies. Sediments predominate; chert is present as nodules, thin beds and lenses, with ribboning and interbedded argillites. The argillites are notably carbonaceous, particularly where sheared, but some varieties are dark red to purple. Limestone lenses are interbedded with volcanics and individual lenses may be up to 100 feet thick. The volcanic members vary from rhyolite breccias to andesite and basalt, although all varieties are medium to dark green with strong propylitic alteration common. Lavas and pyroclastics may have high carbonate content as a network of veinlets. Pillow basalts are also seen in the group.

FIGURE 3 REGIONAL GEOLOGY



- LEGEND:
- 1a Ferguson Gp Sediments
 - 1b Ferguson Gp Volcanics
 - 17a Feldspar porphyries
 - 17b Felsic dykes
 - A1 Serpentine bodies

SOURCE: Cairnes 1944.

Small dioritic intrusions, pyritic quartz-feldspar porphyritic (aplitic) dykes and elongate sheared serpentized ultramafic bodies are common in the prospect area and are well exposed on the Truax Creek access road.

MINERAL DEPOSITS IN THE AREA:

The Bralorne-Goldbridge area has been actively explored since the turn of the century. Placer gold in the Bridge River area was discovered in 1863 and led to discovery of lode prospects from 1897 onward. The Pioneer mine began production in 1914 and full-scale production started in 1928. The adjoining prospects, consolidated as the Bralorne Mine, started full-scale production in 1932.

The adjacent prospects have been explored intermittently during several exploration pulses. Several of the more significant prospects in the vicinity of the claims are described briefly.

ANDAUREX RESOURCES (HJ Claims):

The HJ property, consisting of 92 units, adjoins the Willy 3 and 4 claims on the west and is centered on Truax Creek. The claims are reached by access road east from Goldbridge. Surface exploration was done in 1980 and 1982. Geology, geochemistry and trenching revealed several gold-bearing zones, three of which are reported to be of potential ore grade. (NORTHERN MINER, December 2, 1982).

The zones are described as "Gold-bearing quartz stibnite veins and shear zones up to 5 meters wide and grading over 7 gms. per tonne gold" (0.22 oz/ton). The veins are associated with contact zones between cherty tuffs and feldspar-porphyry dykes containing traces of molybdenite. Channel sampling in the cherty, tuffaceous volcanics include 16.5 feet of 0.223 oz/ton gold and 3.5 feet of 0.50 oz/ton gold.

A major exploration program including drilling is planned for the property.

The showings adjoin those described as the Mary Mac and Royal, etc. showings in 1932 (BCMM Annual Report, p. A216), at which time the controlling interest was held by Cadwallader Gold Mines Ltd.

At that time two major veins were being explored; the first, striking N50°W (magnetic) parallel with bedding or shearing, had one foot of banded quartz on the hanging wall, followed by 2 to 4 feet of magnetite with some pyrite, then 2 feet or more of quartz on the footwall mineralized with pyrite and stibnite. A sample across 70 inches assayed \$18m gold per ton (0.52 oz/ton at \$34.50/oz gold).

On the strike of this showing a 2,500 feet south and 800 feet higher in elevation, another showing assayed \$17.60 in gold per ton over 8 1/2 feet (0.51 oz/ton).

No. 2 vein, a cross-vein striking east-west on the west bank of the creek, shows 2 to 4 feet of badly shattered vein on the hanging wall and about 4 feet of more solid material underneath. The hanging wall assayed \$.80 per ton gold (0.023 oz/ton) and the lower portion \$1.20 per ton (0.035 oz/ton). On the opposite side of the creek, the vein was about 8 feet wide and had been drifted on.

MINTO:

Directly across Carpenter Lake from the Olympic property, the Minto vein is developed by 4 adits. The mill operated from 1934 to 1937. The Minto dyke, a body of fine-grained dark rock (greenstone?) forms the hanging wall for mineralization contained in a quartz-carbonate vein 3 to 4 feet wide, with pyrite, sphalerite, stibnite, galena, tetrahedrite, arsenopyrite, chalcopyrite,

pyrrhotite, native bismuth and jamesonite. In the upper levels, material mined was low grade, but at river level much higher grade material was encountered. Cairnes (1940) describes one shoot 142 feet long by 4.9 feet wide that averaged 1.66 ounces per ton gold. About 12,000 tons were mined from the shoot and overall, averaged 0.9 oz. per ton gold.

Total production was 88,902 tons which averaged 0.197 oz/ton gold.

CONGRESS:

The property, situated on the north shore of Carpenter Lake, immediately west of Gun Creek, was explored by a number of companies; most recently by New Congress Resources Ltd. - now consolidated as Levon Resources Ltd. (GCNL - January 12, 1983). Exploration is proceeding with funding by Veronex Resources Ltd., under the engineering supervision of Dr. R. Seraphim.

Exploration including diamond drilling, drifting and raising in recent years has outlined reserves of 527,962 tons averaging from 0.18 to 0.37 oz/ton gold. (GCNL No. 12, January 19, 1983)

Several quartz-stibnite veins on the property are developed by numerous workings. Gold, however, is contained in strongly altered and pyritized greenstones forming the wallrock. Replacement of the wallrock by ankerite, pyrite, arsenopyrite and sphalerite may extend outward from the veins for more than 20 feet.

Development and exploration of the property is proceeding with a view to production in the near future.

BRISTOL:

The Bristol property is situated on Tommy Creek, 8 km. southeast of the Willy 3 claim. Considerable work was done by Bristol Mines Ltd. from

1939 to 1941 and by Bristol Mines (1946) Ltd. from 1946 to 1947. By 1941, 3 adits existed, the lowermost one was 30 feet above creek level with 708 feet of cross-cutting. In 1946 an additional 128 feet of drifting and 387 feet of drifting were done on this level. In 1947 over 9,000 feet of diamond drilling was done from the third or lowest level in search of oreshoots similar to the one reported above the second level.

Little is known of the geology or mineralization, although it is suspected the mineralogy and structural style is probably similar to that at the Andaurex showing.

GRAY ROCK (Robin, Roy Claims):

This property, situated at the headwaters of Truax Creek, is an old property that has been known by a variety of names. In 1932 it was explored by Bergenham. In 1946 it was staked by L. Belliveau, Minto City for Bellore Mines Ltd. The showings occur at elevation 6,600 feet to 7,200 feet and consist of 6 or more parallel quartz veins striking northeasterly and dipping 30° to 60° southeastward cutting metamorphosed sedimentary rocks including dark gray massive hornfels, chert breccia, and lime-silicate rocks. Granodiorite and aplite dykes also cut the sediments.

The strongest vein, No. 1, has been traced for over 600 feet and has lenticular masses of quartz in a shear zone. The quartz is accompanied by varying proportions of stibnite, tetrahedrite, galena, sphalerite and lesser pyrite and arsenopyrite. In places, only stibnite is present and clean antimony ore could be separated. Seventeen samples taken by O'Grady in 1936 across widths of 2 1/2 to 6 feet range from Trace to 0.06 oz. gold per ton, 0.4 to 2 oz/ton silver and up to 12% antimony.

In 1972, the property was held by Dawson Range Mines Ltd., who

drilled one hole 125 feet. In 1976 the claims were held by Wesfrob Mines Ltd. (a Falconbridge subsidiary) who performed geological mapping, magnetometer and EM 17 Surveys and soil sampling surveys.

Ownership of the claims at present is not known.

RANGER (Bee and Foxy Claims):

The Ranger prospect, owned by Rabbit Oil and Gas Ltd., is situated at the head of Steep and Lindsey Creeks. The claims were optioned from A.B. Unger, H.M. Holmes and L. Howard, who had held them at least since 1975. The claims were explored briefly by Bralorne Mines Ltd. in 1945, and three holes were drilled with poor recovery and inconclusive results.

Mineralization consists of two quartz-arseno-pyrite lenses in a shear zone cutting argillaceous chert of the Ferguson Group metasediments. The vein 2 to 12 inches wide occurs in a shear zone 100 to 200 feet wide and traced for at least 750 feet along strike. Two samples taken across one foot width in a short adit on the main "vein" assayed 4.46 oz/ton gold and 7.6 oz/ton silver, and 0.55 oz/ton gold and 0.60 oz/ton silver.

Numerous other narrow quartz veins with heavy arsenopyrite have been explored and sampled. It is anticipated that additional work will be done on the prospect in 1983.

HISTORY OF THE PROPERTY:

The area of the present claims covers ground originally staked about 1933 and operated by two separate companies, Kelvin Gold Mines Ltd. and Olympic Gold Mines Ltd., mainly in 1933 and 1934. The history of each is described briefly, with additional historical data available in the appendices.

OLYMPIC:

In 1934 work had begun on two adits, the Leckie at river level and the Magee, 200 feet above river level. The main camp, of which two buildings are still habitable, was situated near the "number 1 vein", about 1,200 ft. above river-level. An adit on the massive sulphide zone ("Billyo") had been discontinued.

In 1935, total footage completed on the Leckie adit was 470 feet and on the Magee; 280 feet, under the direction of H.L. Batten. No further work was done from 1936 to 1945.

In 1945, G.S. Eldridge, president of the company directed a program of diamond drilling; 4 holes from the surface and 5 holes from within the Leckie adit. A short crosscut and shaft were commenced from the same tunnel and completed in 1946.

Only minor surface work was done from 1946 on and the claims reverted to the crown and were acquired by the present owners from 1977 to 1980.

KELVIN:

The Kelvin claims, originally staked in 1933 and 1934 by John Hagmo and Ivar Aston were explored originally by the Mintonia syndicate and then by Kelvin Gold Mines Ltd. The Bridge adit, elev. 2,215' and Pat Fraction adit, elev. 2,300' are the main workings, with a 32 foot adit at elevation 2,475 feet. Work was suspended on the property in 1936, due to "depletion of the treasury."

In 1946 the property was restaked by Hagmo as the "Christie" group, and four shallow diamond drill holes put down from surface. No further work was done to the present date.

1982 EXPLORATION PROGRAM:

The writer mobilized to Lillooet July 9 with owner D.B. Ingram. Mapping and sampling was done on the various mineralized zones on the property from July 10 to July 12 and returned to Vancouver July 14. A total of 42 rock and soil samples were taken. These were analyzed for one or more of Cu, Pb, Zn, Mo, As, Au and Ag by Bondar Clegg Ltd. (Report in appendix).

GEOLOGY OF THE PROPERTY AND DISCUSSION OF RESULTS:

General inspection of the property revealed that the major rock type is andesitic "greenstone" which is generally textureless in outcrop, but altered to chlorite, epidote, magnetite with abundant pyrite as fracture coatings. Hornfelsing is intense and is related to one or more intrusive events.

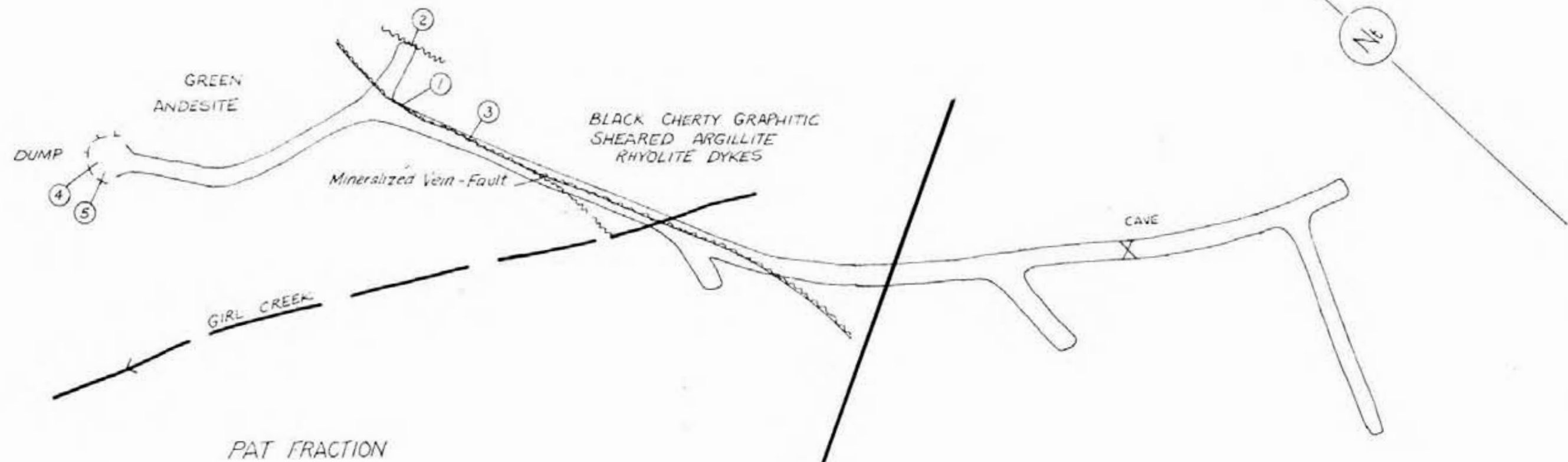
Tuffaceous rocks are present and in most areas may not easily be distinguished from greenstones. Black graphitic and cherty argillites are present in the area of the Kelvin tunnel and probably occur elsewhere on the property (sediments were mapped by Lewis, 1980).

The volcanics and sediments are cut by felsic (aplitic) dykes and by dykelike serpentized ultramafic bodies; both types of intrusive trend southeastward and dip nearly vertically.

Faults are common, as seen in road cuts; these also strike southeastward and veins and mineralized zones have the same orientation. Individual mineral showings are described briefly:

NO. 1 VEIN:

This vein, situated approximately elevation 3,300 ft. A.S.L. at the end of the Olympic access road, is exposed in a cliff below which an old adit



ASSAYS					
No	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
1	4480	8.2	440	515	18260
2	40	0.6	100	14	191
3	3190	750	960	7900	14070
4	2200	6.7	270	1075	3220
5	25	0.5	45	30	165

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FIGURE 6

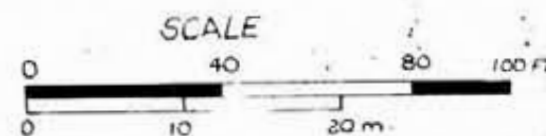
D. B. INGRAM

PAT FRACTION ADIT ON
KELVIN PROSPECT
MELLISANDE M.C., LILLOOET M.D.

From: Sketch by Kelvin Gold Mines Ltd.

Barry Price
B. J. PRICE, M.Sc.

1983



CARPENTER

LAKE



LECKIE ADIT
Au As Zn

MAGEE ADIT
Au, Sb, Zn, As

Zn > 150 ppm
Zn > 300

Cu > 200

Cu > 100 ppm

Mo > 20 ppm

Zn > 150 ppm

Mo > 20

VOLCS
Cu > 100 ppm
Cu > 200

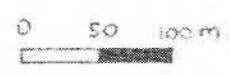
Zn > 150 ppm
Zn > 300

MELLISANDE MC

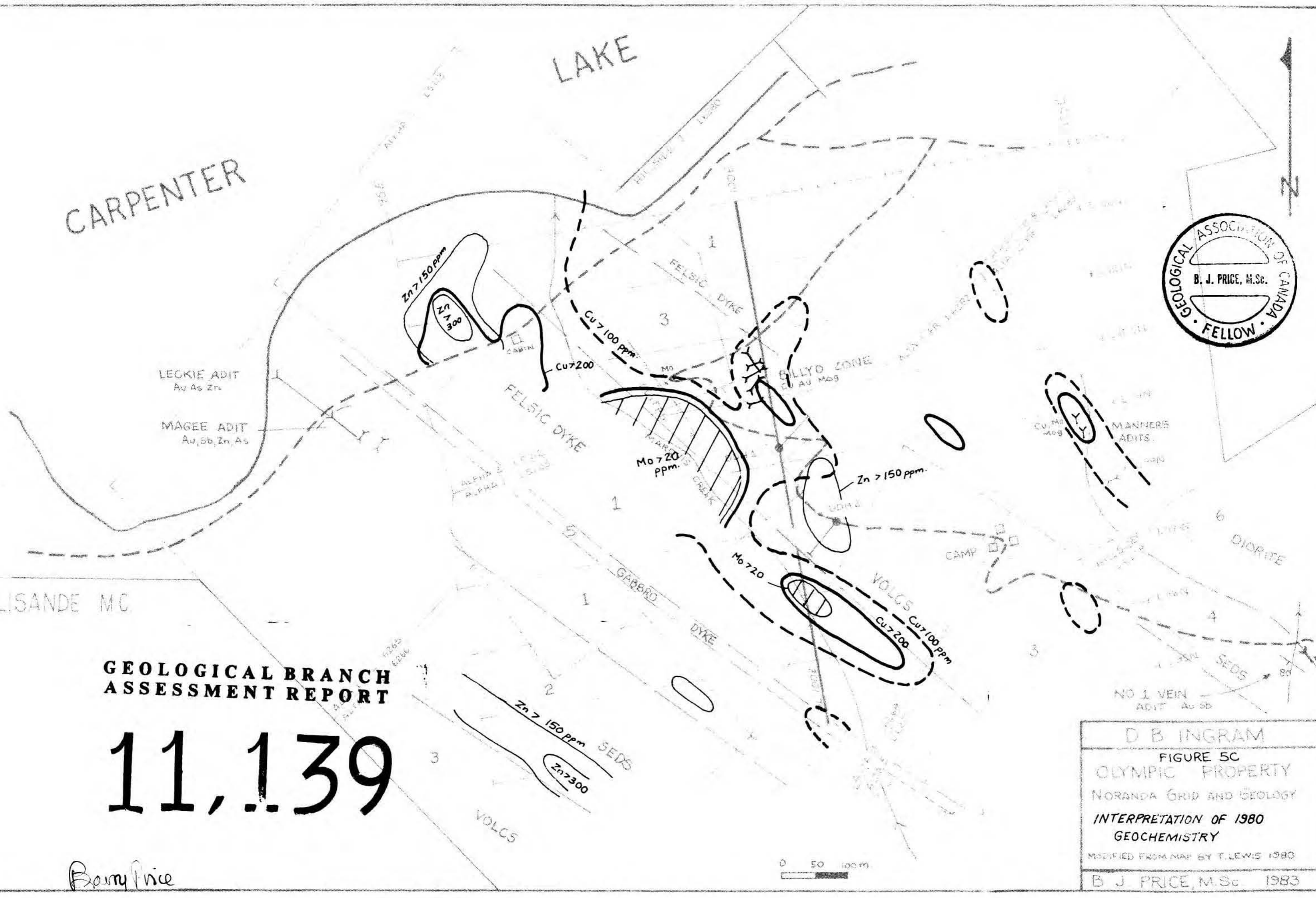
**GEOLOGICAL BRANCH
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D B INGRAM
FIGURE 5C
OLYMPIC PROPERTY
NORANDA GRID AND GEOLOGY
INTERPRETATION OF 1980
GEOCHEMISTRY
MODIFIED FROM MAP BY T. LEWIS 1980
B J PRICE, M.Sc. 1983



CARPENTER

LAKE

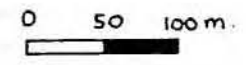
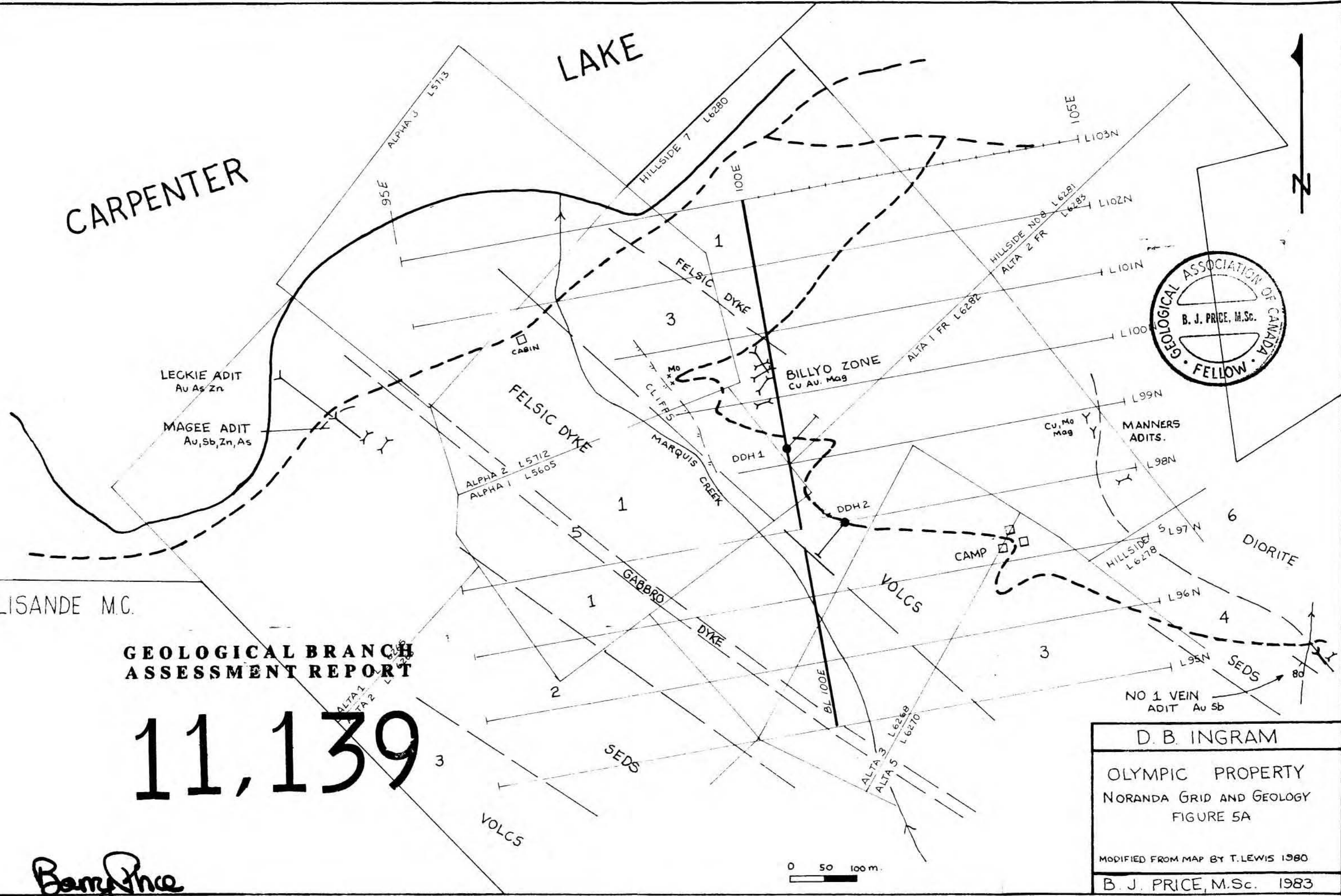


MELLISANDE M.C.

GEOLOGICAL BRANCH
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D. B. INGRAM
OLYMPIC PROPERTY
NORANDA GRID AND GEOLOGY
FIGURE 5A
MODIFIED FROM MAP BY T. LEWIS 1980
B. J. PRICE, M.Sc. 1983

CARPENTER

LAKE



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

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D. B. INGRAM

FIGURE 5B

OLYMPIC PROPERTY

NORANDA GRID AND GEOLOGY

1982 GEOLOGY AND

GEOCHEMICAL SAMPLES

MODIFIED FROM MAP BY T. LEWIS 1980

B. J. PRICE, M.Sc. 1983

Barry Price

To accompany Assessment Rpt

is caved. The narrow vein follows the faulted contact of a diorite body on the east with hornfelsed andesitic tuffs or finely laminated sediments. The vein is quartz and carbonate with large stibnite crystals and finer disseminations of grey sulphides.

The adit was driven southeasterly for 135 feet along a silica carbonate zone up to 20 ft. wide (Stevenson, 1952). A similar mineralized zone is present on the hillside 130 feet above the adit and here the zone is 8 feet wide.

In 1934, J.M. Leckie, consulting engineer for Olympic Gold Mines reported gold values running from \$10 to \$57 per ton.

One sample taken by the writer here from a well-mineralized 4 inch piece of vein material assayed 605 ppb gold (approx. 0.019 oz/ton = \$9.45/ton @ \$500/oz.)

MASSIVE SULPHIDE (BILLYO) ZONE:

Several trenches near Ln 100N/100E expose massive pyrrhotite-pyrite-chalcopyrite-magnetite mineralization. Stevenson reports the mineralization is lensoid in lime-silicate rocks. An adit below the trenches extended 150 ft. southeast from the road, and intersected stringers of pyrite and magnetite and garnet-diopside skarn. Probably the adit failed to reach the massive zone.

In 1980 a drill hole 137 m. (451 ft.) long intersected coarse felsic breccias which are very strongly chloritized, with stringers of chalcopyrite and magnetite. The hole may have been positioned incorrectly to cut the massive zone; the rocks intersected are strongly suggestive of a footwall stringer zone sequence. Diamond drill hole No. 2 aimed in the opposite direction, cuts similar rocks.

Surface samples of the massive material taken by the writer (Billyo

1, 2) range from 1/2 to 1% copper with 100 to 545 ppb gold and 3.4 to 3.8 ppm silver.

A line of soil samples taken along the most strongly-mineralized trench at 25 m. intervals (P184-P190) are all anomalous in copper - 139 to 760 ppm with one sample containing anomalous gold and silver (265 ppb Au and 5.1 ppm Ag). The soil anomaly is at least 100 meters wide.

MOLYBDENITE ZONE:

After molybdenite was seen on fractures with pyrite, gypsum and chalcopyrite in several sections of the core from both holes, presence of a molybdenite zone was verified by prospecting. A broad gossanous area on Marquis Creek corresponds with fracturing and quartz veining adjacent and possibly within the broad aplite dyke centered on the creek. Molybdenite was seen in two separate outcrops 500 meters apart -- west of the massive sulphide zone and also at the "Manners" adits. A broad pyrite/gypsum halo surrounds the "center" as defined by Norandas geochemical survey (Figure 5B).

"MANNERS" ADITS

Two stub adits near Ln99N/104E were reported to have been complete by Ben Manners in the late 1940's (D. Ingram). Both adits are in calc-silicate rocks and garnet-magnetite-quartz skarn with small amounts of molybdenite and chalcopyrite. Significantly the rocks are also anomalous in gold and silver:

	<u>Cu</u>	<u>Mo</u>	<u>Ag</u>	<u>Au</u>
P180	830 ppm	20 ppm	1.2 ppm	155 ppb
P182	380	8	0.4	45
P183	280	24	0.9	200

MAGEE-LECKIE ZONE:

An irregular silica-carbonate alteration zone occurring within dark serpentine near its contact with an aplite dyke has been followed by two underground workings, the Leckie and Magee adits (described in detail in Appendix II).

Several wide ore shoots were discovered in the workings and appear to be quartz-pyrite-arsenopyrite-sphalerite rich lenses in silica-carbonate rock on the margins of gabbroic and felsic dykes (analogous to those at the Minto mine nearby).

Four holes were drilled from surface near the Leckie portal. Hole C is reported by G.S. Eldridge to have intersected 4 feet of quartz with chalcopyrite and arsenopyrite which assayed 1.04 oz/ton gold and 11.8 oz/ton silver (assay certificate in appendix).

Float samples taken by the writer are as follows:

	<u>Au</u>	<u>Ag</u>
Magee float	1870 ppb (0.055)	750 ppm
P193	2090 (0.06)	25 ppm

ALMA ZONE:

The Alma tunnel, a short distance above road level near the western boundary of Alta 1 claim was originally put in by Kelvin Gold Mines Ltd., but apparently discontinued when the property boundary was found to be at the portal.

Little information is known concerning the Alma adit. The writer observed andesites with variolitic texture at the portal. Higher on the hill, in several shallow pits, disseminated pyrrhotite, chalcopyrite and possible sphalerite were seen. Siliceous and silica-carbonate alteration reminiscent

of mercury-arsenic-gold zones is present. A line of soil samples P164-P174, and several rock samples were taken at roughly 25 meter intervals.

Most samples are anomalous for copper. Lead and zinc are uniformly low. However, the 6 samples analyzed for arsenic are all anomalous (105 - 500 ppm) and the two soils analyzed for gold are strongly anomalous (280 and 365 ppb). Clearly some potential exists in the area for a disseminated gold-arsenic zone in silicified or carbonatized greenstones, and all pulps or rejects should be now analyzed for Au, As, Hg.

KELVIN ZONE:

Several samples were taken from the Kelvin vein/shear and the dump. The mineralized zone occurs in a shear at the contact of greenstones and black cherty graphitic argillites intruded by altered felsic dykes.

Samples and assays are shown on the accompanying sketch. Additional geological data is provided in the appendix.

MISCELLANEOUS SAMPLES:

Soil samples P191 to P195 were taken along the lower access road from the Olympic camp road turnoff, toward the Alma tunnel. Moderate copper and low but significant Mo values indicate that these samples are from the pyrite halo of the copper-molybdenum system.

Samples P177A and B from the eastern edge of the property also have low Cu and Mo values and no gold or silver.

DISCUSSION AND CONCLUSIONS:

The Olympic-Kelvin property has been subjected to several separate mineralizing events. The massive sulfide zone, although tested by one drill hole, has yet to be disproven. The several gold-antimony-arsenic zones, as

yet examined only in preliminary fashion provide tantalizing targets, considering the proximity of deposits such as Congress, Minto and Bralorne, and considering that milling facilities and infrastructure may be available in the near future.

The writer concludes that exploration should be pursued on the property with the object of outlining a high grade gold-silver zone or a larger zone of disseminated gold in volcanics, in silica-carbonate zones such as the Congress, or in graphitic cherty argillites as are present at the Andaurex showings.

RECOMMENDATIONS:

The two main objectives of further work should be to map the property in detail and to provide encouragement to drill by demonstrating areas with gold or silver in soils and rocks by geochemical surveys. The following specific recommendations are made:

- (1) Topographic or orthophoto basemaps should be made to assist in mapping the steep terrain.
- (2) If possible, the 1980 Noranda sample pulps or rejects should be obtained for analysis of gold silver, arsenic and possibly mercury (Hg is present at Congress and other prospects).
- (3) 1982 samples should be run for gold and arsenic where these have not previously been analyzed.
- (4) Consideration should be given to extending the 1980 grid by means of another baseline at 95 east (to be cut) and further lines to cross the Mellissande and Melissa claims.
- (5) Hand blast trenches should be completed at the No. 1 vein, the Massive sulphide zone (Billyo) and the Alma tunnel gold/arsenic anomaly.
- (6) Upper adit and vein exposures on the Kelvin showing should be examined.

- (7) Attempts should be made to locate drill logs for the 1945-46 diamond drill holes.
- (8) Magnetic surveys and EM surveys should be re-done to extend the Manners skarn zone. The premise that existing EM anomalies are caused by buried water pipes should be checked:
- (9) The Magee and Billyo portals should be repaired and mapping done in the workings.
- (10) The Olympic camp buildings should be made habitable.

A suggested budget for the above work is as follows:

Phase I

Preparation of air photo base map	\$ 5,000.00
Geological mapping - 2 men x 3 wks 40 man days @\$225/day	9,000.00
Line cutting and soil sampling 15-20 km., concurrent w. mapping	7,500.00
Cost of analyses - 500 soils @ \$15.00	7,500.00
Rock assays - 50 @ \$35/each	1,750.00
Magnetic and EM surveys	7,500.00
Blast trenches	5,000.00
Reports, maps, reproduction, xeroxing, etc.	5,000.00
Reanalysis of previous samples	3,500.00
Food, accommodation etc.	3,000.00
Mobilization, telephone, radio, etc.	1,000.00
Expendable field supplies	500.00
Road repairs	750.00
Portal repairs	1,500.00
Total	\$ 58,500.00

Phase II

Cat trenching blasting and assaying	\$ 10,000.00
Diamond drilling 1,000 m.	120,000.00
Engineering reports, supervision	20,000.00
Total	\$150,000.00



Respectfully submitted,

Barry Price
Barry J. Price, M.Sc., FGAC

ITEMIZED COST STATEMENT

B.J. Price, geologist - July 9 (1/2), 10, 11, 12, 14 4 1/2 days @ \$275/day	\$1,237.50
D.B. Ingram, prospector - 4 1/2 days @ \$125/day	562.50
Food and accommodation - 9 man days @ \$35/day	315.00
Vehicle costs - 4 1/2 days @ \$60/day	270.00
Geochemical analyses (Bondar Clegg) 42 samples @ \$15/ea. (estimate)	630.00
Geological report B.J. Price	
Misc. time Nov/82 - Apr/83 - 4 days @ \$275/day	1,100.00
Reproduction, xerox, typing (estimate)	100.00
	<hr/>
Total	\$4,215.00
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Note: Where receipts are not available costs have been estimated at fair value.

Barry Price

Barry J. Price, M.Sc. FGAC
Consulting Geologist



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REPORT: 122-3777 PROJECT: NONE GIVEN

PAGE 1

AMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ag PPM	As PPM	Au PPM	NOTES
P-171		280	11	129		0.4	400	280	
P-174		310	10	89		0.2	210	40	
P-175		210	3	101		0.6	450	25	
P-178					4	0.8		20	
P-184		153	5	75		0.2		<5	
P-185		139	8	86		0.2		<5	
P-186		650	7	84		0.2		75	
P-187		420	5	44		0.4		30	
P-188		320	9	42		5.1		265	
P-189		760	4	65		0.5		10	
P-190		580	7	71		0.6		20	
F82-164		40	8	57		0.2	40	30	
F82-165		35	8	48		0.2	32	5	
F82-166		76	7	82		0.2	270	20	
F82-170		260	6	192		0.5	500	365	
Ilva		210	8	42	3	0.4	6	15	
Billvo 1		5700	7	50		3.8		545	
Billvo 2		9500	<2	44		3.4		190	
Kelvin 1		440	515	18260		8.2		4480	
Kelvin 2		100	14	191		0.6		40	
Kelvin 3		960	7900	14070	>	50.0		3190	
Kelvin 4		270	1075	3220		6.7		2200	
Kelvin 5		45	30	165		0.5		25	
Masee Float					>	50.0		1870	
P-167		49	10	51		0.3	50	15	
P-172		122	6	42		0.3	40	15	
P-173		119	4	47		0.2	30	25	
P-176		53	3	64		0.2	85	<5	
P-177A		100			1	0.2	11	<5	
P-178		10			2	0.2	5	<5	
P-179						0.4		605	
P-180		830		36	20	1.2		155	
P-182		380		38	8	0.4		45	
P-183		260		47	24	0.9		200	
P-191		37			6				
P-192A		133			2				
-192B		21			1				
P-193						25.0		2090	
P-194		83			3				
P-195		148			3				



REPORT: 122-3777 PROJECT: NONE GIVEN

PAGE 2

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	Mo PPM	As PPM	As PPM	Co PPM
R P82-168		230	7			0.9		1
R P82-169		46	2	47		0.2		5

NOTES

SAMPLER: _____

CODE: _____

MAPSHEET _____

PROPERTY/PROJECT CODE: _____

PROJECT: OLYMPIC/KELVIN

AREA: Goldbridge.

COMPANY: INGRAM

DATE: July 10/82

NO. of SAMPLES: 5 Rx

Kelvin Tunnel

SAMPLE No.	DESCRIPTION	WIDTH OF SAMPLE	Cu	Pb	Zn	Mo	Au	Ag	As
Kelvin 1	Quartz-calcite vein w sulphides Main shear nr. #1 X-cut.	4-6"	440	515	18260		.4480 -13	8.2	
2	Fault in face of X-cut #1.	2-3"	100	14	191		40	0.6	
3	~30' beyond #1. Qlz-calcite vein w. cp, sph, gn, py	7-8"	960	7900	14070		3190 .093	750.0	
4	Calcite w bx fragments Silica, pyrite, sph, gn, cp. (2nd shear vein on floor of drift @ Same loc as #3	6"	270	1075	3320		2200 .06	6.7	
5	Black cherty pyritic sediment (jasperoid?) from dump.	Grab.	45	30	165		25	0.5	

SAMPLER: B. PRICE

CODE: _____

MAPSHEET _____

PROPERTY/PROJECT CODE: _____

PROJECT: OLYMAC / KELVINAREA: GoldbridgeCOMPANY: INGRAMDATE: July 12/82NO. of SAMPLES: 7 Rx

OLYMPIC PROPERTY

SAMPLE No.	DESCRIPTION	WIDTH OF SAMPLE	Cu [✓] _{ppm}	Pb _{ppm}	Zn _{ppm}	Mo _{ppm} [✓]	Au _{ppb} [✓]	Ag _{ppm} [✓]	As _{ppm} [✓]
P177A	East end of property on road. Dark andesite w. west dipping siliceous altv zone ~ 2' wide. cp, arsenopy? + po.	Rx	100			1	<5 _{ppb}	0.2	11 _{ppm}
P177B	E side of steep gully west of Marquis Creek. Light altered Serpentine zone. Chips ~ 2m.	Rx	10			2	<5	0.2	5
P178	Pyritic aplite ~ 10m east of 178					4 [✓]	20 [✓]	0.8 [✓]	
P179	#1 zone. Stibnite rich float minor pyrite in coarse carb. vn.	Rx					605 [✓]	0.4 _{ppm} [✓]	
P180	Skarn. Magnetite/garnet w Plz, carb, py. lower Manners adit.	Rx	830 [✓]		36 [✓]	20 [✓]		1.2 [✓]	
P181	Upper Manners adit. Open cut above adit. 2m. chip. Mag/hem garnet, minor cp.	Rx	MISSING						
P182	Dump. Upper Manners adit. Magnetite/Garnet/cp skarn	Rx	380		38	8	45	0.4	

SAMPLER: B. PRICE
 CODE: _____
 MAPSHEET _____
 PROPERTY/PROJECT CODE: _____

PROJECT: OLYMPIC ELWIN
 AREA: Gold bridge
 COMPANY: INGRAM
 DATE: July 12/82
 NO. of SAMPLES: 3 Rx
 7 Soil

OLYMPIC PROPERTY

SAMPLE No.	DESCRIPTION	WIDTH OF SAMPLE	Cu	Pb	Zn	Mo	Au	Ag	As
P183	Dump. Mag/hem/garnet/cp Skarn in silic limestone.		280		47	24	200	0.9	
	BILLYO ZONE (MASSIVE SULPHIDE).								
	SOIL TRAVERSE		✓	✓	✓		✓	✓	
P184	~50m. NE of trench.	00 Soil	153	5	75		45	0.2	
P185	250m SW	25 "	139	8	86		45	0.2	
P186	25m SW.	50m "	650	7	84		45	0.2	
P187	~10m SW. of BL	75m "	420	5	44		30	0.4	
P188	~2m NE of mass sulph. D/c.	100m "	320	9	42		265	5.1	
P189	25m. SW.	125m "	760	4	65		10	0.5	
P190	25m SW.	150m "	580	7	71		20	0.6	
BILLYO1	2m. chip sample. Massive pyrite / pyrrhotite / chalcopyrite	Rx	5700	3	50		545	3.8	
2	Grate . selected high grade Massive sulphide.	Rx	9500	<2	44		100	3.4	

SAMPLER: B. PRICE
 CODE: _____
 MAPSHEET _____
 PROPERTY/PROJECT CODE: _____

PROJECT: OLYMPIC NELVIN
 AREA: Goldbridge
 COMPANY: INGRAM
 DATE: July 11/82
 NO. of SAMPLES: 2 + 5 Rx

MAGEE DUMP AREA

SAMPLE No.	DESCRIPTION	WIDTH OF SAMPLE	Cu	Pb	Zn	Mo	Au	Ag	As
MAGEE 1	Boulder w. qtz-carb, arsenopyrite + galena ^{sph.} pyrite, malposite, cpy	selected					1870	750ppm	
2	Grab - several pyritic quartz pcs.	grab							
P193	Debris near portal. Rusty qtz w. py, asp. Cu? carbonates. prob. represents Magee vein.	selected					2090	25ppm	
ROAD TRAVERSE. EAST OF BILLYO ROAD TO ALMA TUNNEL									
P191.	Altered zone in greenstones? Grey silica w. qtz veins + sulphides ~ 20m east of Billyo. road entrance	RX	37			6			
P192.	221 m. west. Rusty fractured rocks. hornfels w. pyrite, gypsum on fractures. (Greenstone originally?)	A RX B	133 21			2 1			
P193	See above.								
P194	875m. W. Quartz rich rusty hornfels. 1 meter rusty shear.		83			3			
P195	1008 m. W. Qtz rich hornfels. PY + gyps on fractures.		148			3			
							TOTALS	29 RX 13 SOIL	} 42

1934

Olympic Gold Mines, Ltd. The property of the Olympic Gold Mines, Limited, consisting of twenty claims is 37 miles by road from Bridge River Station on the Pacific Great Eastern Railway. It is on the south side of Bridge river, almost directly opposite the Minto Gold Mines property. When the writer visited the property in the fall of 1934 work was being concentrated on what are known as the Leckie and Magee adit showings, both located at or close to the river-level. The main camp, situated near No. 1 vein, is over 1,000 feet above the river-level. Work had been discontinued on the heavy pyrite-magnetite showing, just below the camp, prior to the writer's visit to the property. Values are said to have been disappointing in this working in spite of the heavy sulphide mineralization.

The more recent work at the river-level has been for the purpose of developing what appears to be possibly a shear-zone in the fine-grained, altered rocks of the Bridge River series.

The Leckie adit, 8 feet above the river-level, develops a heavily mineralized quartz-sulphide vein, strike south 55 degrees east, dip 50 to 60 degrees south-west, which has a width of 13 feet 2 inches where first intersected. This adit, it is understood, has since been advanced to a total distance of 200 feet from the portal. The vein was sampled where first intersected in three sample sections, each section being a milled channel sample. The first sample across 46 inches on the hanging-wall side of the vein assayed a trace in gold, 0.6 oz. silver per ton, and 1.7 per cent. zinc. The centre 54 inches of the vein assayed 0.02 oz. gold per ton, 6.5 oz. silver per ton, 1 per cent. lead, and 2.5 per cent. zinc. The 58-inch foot-wall section of the vein assayed 0.04 oz. gold per ton, 0.8 oz. silver per ton, and 2.5 per cent. zinc. Three carefully taken representative samples of the sorted mineralization from the Leckie adit showed an average assay of 0.078 oz. gold per ton, 5.7 oz. silver per ton, 0.3 per cent. copper, 0.7 per cent. lead, and 3.2 per cent. zinc.

Approximately 150 feet higher in elevation and 200 feet south-easterly from the portal of the Leckie adit is the Magee showing, on which an adit has recently been started. The mineralization as here exposed consists of 10 to 12 feet of badly decomposed and highly oxidized vein material separated into a hanging-wall and a foot-wall section by a 3- to 4-foot felsite dyke. The Magee vein shows strikes and dips similar to the showing in the Leckie adit, and the two showings are believed to be closely related.

A sample of selected oxidized material from the open-cut at the north-west end of the outcrop assayed 0.12 oz. gold per ton, 2.6 oz. silver per ton, 0.3 per cent. copper, and 2 per cent. zinc. A channel sample across a width of 60 inches of quartz and sulphide mineralization at the portal of the Magee adit (being driven into the hill south 55 degrees east) assayed 0.06 oz. gold per ton, 4.4 oz. silver per ton, 0.3 per cent. copper, 1 per cent. lead, and 1 per cent. zinc.

A crew of fourteen men was employed at the property under the supervision of W. J. Uzzell. Portable compressor equipment was being used in the driving of the Leckie adit; the work at the Magee adit being driven by hand-mining methods.

1935

Olympic Gold Mines, Ltd.—Exploratory work on the *Alta No. 1* claim, adjoining the southern side of Bridge river, approximately opposite the Minto mine property, consisted of drifting and crosscutting in two adits, at elevations of 2,020 and 2,161 feet respectively, which correspond to the Leckie and Magee workings referred to on page F 31, Report of Minister of Mines for 1934. When seasonal work was discontinued total footages in the lower adit comprised 470 feet and in the upper adit 280 feet. A Sullivan 2-drill, motor-driven compressor was in use, exploration being conducted under the technical direction of H. L. Batten.

Senator Gold Mines, Ltd.—At this property, which adjoins the holdings of the Olympic Gold Mines, Limited, to the south-west, surface work of an exploratory nature was done during the open season under the technical direction of H. L. Batten.

This property on the south side of the Bridge River, across from Minto Mine, is owned by Olympic Gold Mines Ltd. Company office: 644 Hastings Street W., Vancouver, B.C. G.S.Eldridge President. In 1952 the property comprised six claims: Alta Nos. 1-4 inclusive, Alta fraction and Hillside No.7.

Work was done on the property in 1934, 1935, after which it was idle until early in 1945 when a program of diamond drilling was begun, the shaft crosscut driven in the Leckie adit and the shaft collared. In 1946 the shaft was sunk to its present depth and the drifts from the bottom of the shaft driven, the shaft was allowed to flood after the drifts were driven and the property has lain idle since that year.

The workings, principally on the Alta No. 1 claim, and those in which the most recent work has been done, include two adits, the Leckie close to river level and the Magee, 175 feet above the Leckie. The Leckie adit is on the road at a point 1 mile downstream from the site of the old Olympic bridge across the Bridge River at Minto. The details of these adits are shown in Figure 1. Midway in the Leckie adit a vertical shaft has been sunk for 75 feet and a deeper level driven from the bottom of the shaft.

Diamond drilling done in the vicinity of these workings includes drill holes A, B, C, and D from the same setup on the surface about 50 feet easterly from the portal of the Leckie adit and drill holes 5, 6, 7, 9, and 10 drilled from within the Leckie adit.

The ground covered by these claims is underlain principally by argillites, cherts, and greenstone lavas of the Fergusson Group. In the vicinity of the principal workings these rocks have been intruded by a north-westerly trending body of peridotite, now wholly serpentized to black serpentine. The two main adits and drill holes from the lower most adit indicate that this band of serpentine is about 3,000 feet wide at river level. In addition to Fergusson group rocks, numerous small felsite dykes, and small isolated intrusions of diorite and gabbro have been found on the property.

The Leckie adit was driven to explore a quartz-sulphide vein in a shear that follows an irregular lens of carbonate-silica rock. At 40 feet from the portal the working intersected the quartz vein which a slashing in the wall shows to be 4 feet wide. The vein has been faulted here, but the offset part was picked up 15 feet farther along the drift and followed for 55 feet to a point 115 feet from the portal where it was cut off sharply by a diagonal fault. From this point the drift follows a barren shear zone and at 145 feet the zone of shearing becomes a strong fault zone 6 to 12 inches wide and containing a few stringers of calcite but no quartz. Three crosscuts have been driven southwesterly from the main drift, but although these intersected short quartz-sulphide lenses, from 2 to 12 inches wide, they failed to intersect anything comparable to the quartz first drifted on.

The rock in the Leckie adit is principally very fine-grained to dense black serpentine that in turn consists principally of fine-grained antigorite and numerous scattered grains of chromite. The serpentine along the drift, that is the serpentine followed by the shear and principal quartz vein, has been altered to a grey talc-carbonate and antigorite rock; chromite grains are still present in this altered rock. In the last crosscut to the southeast a body of gabbro, about 30 feet wide was intersected and towards the face a felsite dyke about 30 feet thick was cut; sheared black serpentine was entered at the face. The gabbro is characterized by coarse labradorite plagioclase, and remnant grains of pyroxene; the felsite by a felted intergrowth of plagioclase laths.

The internal shaft has been sunk 88 feet in black massive serpentine, cut occasionally by strong faults. At 75 feet down the shaft a crosscut has been driven 30 feet southwesterly and 20 feet northeasterly. The southwesterly crosscut, in serpentine, intersects at the face a strong fault zone 5 feet wide. The crosscut to the northeast, also in serpentine, intersects a strong shear zone; this has been followed by drifts northwesterly for 33 feet and southeasterly for 43 feet.

"The faces of the lower drift were at these points when visited by the writer early in July 1946, but since these were the faces that were active at that time, the footages of the drift from the shaft crosscut, are probably somewhat in excess, but not by much, of the footages given".

dug along the hillside 130 feet above the adit and towards the southwest end of the stripping a strong shear zone was intersected and on this a cut was driven 10 feet southeasterly. This zone, 8 feet wide, contains mineralization similar to that found in the adit. The northeast end of the stripping intersects greenstone tuff, some of which has been altered to a fine-grained hornfels rock characterized by a brownish cast because of biotite.

A narrow lenticular vein of quartz, 0 to 1 foot wide, was followed by this drift. This vein has an attitude similar to that in the drift above and it may be the same vein, faulted into its present position of faults, one of which dips 30 degrees southwest, cuts the vein in the back of the drift. This drift is in a zone of grey altered serpentine, about 8 feet wide; that follows or has been followed by the shear zone.

Magee Adit - The Magee adit, elevation 2,290 feet, is southeasterly up the hillside from the Leckie (Fig. 1). The details of as much of this adit as could be examined by the writer are shown in Figure 1. For 70 feet from the portal, this adit follows a strong quartz-sulphide vein, from 6 to 18 inches wide, in cream-coloured carbonate rock. At 70 feet both the vein and carbonate rock have been sliced off by two parallel faults, each about 1 foot wide. From here the drift follows the principal, the footwall fault to and beyond the cave. The only mineralization along this section of the drift consists of a quartz vein at 75 feet, 2 to 4 inches wide, mineralized with quartz, sphalerite, and pyrite, and at 125 feet two quartz veins the first 1 foot wide and the second 4 inches wide, both mineralized with pyrite. All these are cut off by the drift fault.

From the portal to 70 feet the drift follows a zone of cream-coloured carbonate rock; and as previously stated, a fault at this point slices the zone of carbonate rock, and from here to the cave the drift is in glossy dark-green to black serpentine. However, the last 10 feet of the short crosscut to the north is in dark-green gabbro, containing large grains of labradorite, plagioclase, and kernels of pyroxene surrounded by amphibole. The last 10 feet of the drift before the cave is in greenstone lava; the rock in the footwall of the drift fault is still in black serpentine.

The principal mineralization in the adit is in the strong quartz-sulphide vein from the portal to 70 feet. The amount of sulphide in this vein is exceptionally heavy and in places constitutes 75 per cent of the vein matter. The sulphides include a coarse-grained mixture of arsenopyrite and sphalerite, with smaller amounts of pyrite chalcopyrite, and galena; a rough banding of arsenopyrite and sphalerite is occasionally present.

The principal diamond drilling on the property has been done from the Leckie adit, and from the surface near the portal. The writer logged the core of diamond drill holes 6, 7, 9, and 10, but could not find the core of holes

A, B, and C. The core in holes 6, 7, 9, and 10 consists of alternating sections of greenstone lava, tan or cream-coloured carbonate zones, and of massive black serpentine; the black serpentine comprised the bulk of the material. Coarse-grained gabbro containing abundant labradorite, plagioclase, and large remnant grains of pyroxene was seen in hole No. 6, between 131 and 146 feet. Mineralization intersected by these holes consisted of a cream-coloured carbonate zone in hole No. 7, between 137 and 153 feet cut by many quartz-carbonate stringers and in this section, between 140 and 144 feet of quartz mineralized with abundant arsenopyrite and chalcopyrite. It is reported (G.S. Eldridge, Personal Communication) that this material contained appreciable amounts of gold and silver. The location of this mineralization with respect to the showings, is pretty well on the downward extension of the quartz-sulphide vein in the portal section of the Magee adit. In addition to its location, its mineralization suggests that the mineralization in drill hole No. 6 represents the downward extension of the Magee quartz vein.

It is reported the Hole C intersected 4 feet of (G.S. Eldridge, Personal Communication) mineralization between 143.6 and 147.6 feet that included chalcopyrite and needles of arsenopyrite and that assayed over an ounce in gold, and several ounces in silver. (See attached assay sheet).

Hole D is reported to have intersected 23 feet of (G.S. Eldridge, Personal Communication) mineralized material, including abundant pyrite and some arsenopyrite, but which contained little gold.

From a point on the road about half a mile easterly from the lowermost or Leckie adit, a good trail now partly overgrown, leads southerly up the hillside to the old Olympic camp, a collection of cabins conspicuous because of their red roofs which may be seen for a considerable distance from across the valley of the Bridge River.

About half way along this trail, at elevation 2,600 feet, an adit has been driven southeasterly below outcrops of lens-like masses of pyrite and magnetite, in an area of lime-silicate rocks. This adit has been driven south 30 degrees east to the face at 150 feet; from here one crosscut was driven 30 feet northeasterly and another 10 feet southwesterly. At 23 feet from the portal, the adit intersects a 3-inch shear, strike northeasterly and dip 45 degrees southeastward, that now consists principally of limonite. From this shear for a distance

of 40 feet southeasterly the working intersects a zone of northeasterly striking, southeastward dipping stringers of pyrite and magnetite. This and the limonite shear, appear to be the only mineralization intersected by the adit. The rock in the adit includes green, actinolite-rich lava; light brown dense hornfels, (probably a tuff) and between 70 and 110 feet from the portal, of light-brown garnetite. Patches of light green diopside-rich rock are also occasionally seen.

Highest Adit - The trail leads east-southeasterly from the old Olympic camp for 1,700 feet to the highest adit on the property at elevation 3,300 feet. This adit explores quartz stringers, mineralized with stibnite, that follow indefinite shearing in a southeasterly trending zone of silica-carbonate rock at the contact of diorite on the northeast and black serpentine rock on the southwest.

The adit has been driven in a general southeasterly direction for about 135 feet in detail as follows: from portal to point A, 56 feet at south 60 degrees east; A to B, 20 feet at north 80 degrees east; B to C, 45 feet at south 35 degrees east; and C to face, 37 feet at south 60 degrees east. From the portal to point B the working follows a southeasterly striking zone of carbonate silica rock, 10 to 20 feet wide. At B it intersects two strong faults about 6 feet apart that strike southeasterly and dip 65 degrees northeastward. The hanging wall fault is at the contact between the carbonate zone and diorite. From B the working angles southeasterly across these faults and approaches them again near the face, where a slashing 4 feet deep has been made to intersect them; the faults have merged in the slashing. The principal rock in the drift is silica-carbonate rock, but at a few places along the southwest walls, dense black serpentine is encountered, and in the northeast wall at B, diorite was exposed for a couple of feet at the bend.

The mineralization consists of quartz-carbonate stringers, strike southeasterly and dip 45 degrees and more northeastward, that follow the slightly sheared silica-carbonate zone. The stringers range from 1 to 3 inches wide and are mineralized principally with stibnite, but some pyrite and galena have been seen, and some arsenopyrite reported.

The shear-zone which this adit was meant to explore is exposed in surface workings immediately above the adit. A stripping 100 feet long has been

VICTOR DOLMAGE
CONSULTING GEOLOGIST

G E O L O G Y
of the
Leckie and McGee Tunnels,
OLYMPIC GOLD MINES,
Bridge River, B. C.

The following brief report on the geology of the Leckie and McGee tunnels of the Olympic Gold Mines is based on a two day study of the workings made on February fifth and sixth, when all the rest of the property was covered with snow. This report is a supplement to a preliminary report made on February twelfth.

The Leckie tunnel was driven at an elevation of about eight feet above the water level of Bridge River. It was driven first in an effort to follow a showing discovered near its present portal, and then to try and find the downward continuation of the McGee vein. It was driven south fifty degrees east for 250 feet and then south twenty degrees west for 70 feet. Three crosscuts were driven to the southwest, one to the east and one to the southeast, having in all a total length of 100 feet. All are shown on the accompanying map. The showing near the portal consists of a strong quartz vein ten feet wide, heavily mineralized with pyrite and arsenopyrite.

CABLE ADDY "ELDRIDGE"
 HEAD OFFICE AND LABORATORIES
 557 HORNBY STREET
 VANCOUVER, B. C.
 PHONE PACIFIC 7034

Certificate of Assay

MEMBER OF
 CANADIAN INSTITUTE OF CHEMISTRY
 CANADIAN INSTITUTE OF MINING AND METALLURGY
 SOCIETY OF CHEMICAL INDUSTRY, ENGLAND
 AMERICAN SOCIETY FOR TESTING MATERIALS
 AMERICAN CHEMICAL SOCIETY

G. S. ELDRIDGE & CO. LTD.

PROVINCIAL ASSAYERS, ANALYTICAL AND CONSULTING CHEMISTS
 METALLURGICAL AND CEMENT INSPECTORS

We hereby certify that the following are the results of assays made by us upon samples of 0. r. 6
 herein described and received from Messrs. Olympic Gold Mines Ltd. August 27th 1945.

MARKED	GOLD		SILVER		PER CENT.	VALUE PER TON	PER CENT.	VALUE PER TON	TOTAL VALUE PER TON (2000 LBS.)
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	VALUE PER TON					
Drill Core Hole "C" 143.6' to 147.6'	1.04	\$ 62.40 40.04	11.8	\$ 12.88 5.31					\$ 21.26 45.35
Leckie Tunnel Roof Sample 60' in	0.38	\$ 22.80 14.63	0.52	\$ 0.83 0.23					\$ 23.63 14.86
Wall Rock at 60'	Trace		0.32						
Float	Trace		Trace						
Black Type Rock	Trace		Trace						

Gold calculated at \$ 38.50 per ounce.

Calculated at _____ cents per lb.

Silver calculated at 0.45 per ounce.

Calculated at _____ cents per lb.

NOTE.—Samples only retained 3 months unless otherwise specified.

G. S. Eldridge Provincial Assayer

In a distance of 35 feet it narrows down to three or four feet and for the next 120 feet it consists of a number of isolated lenses in a very strong and wide shear. The McGee tunnel follows a strong quartz vein for its full length of 54 feet. For part of the distance the vein width exceeds that of the tunnel and at the face exceeds four feet. This vein dips 70 to 80 degrees to the southwest.

The rocks encountered in both tunnels are altered beyond recognition and now consist of calcite, quartz, actinolite, serpentine and sericite, with a liberal dissemination of pyrite, pyrrhotite and arsenopyrite, and some black opaque mineral which appears to be an alteration product after some other mineral.

As shown on the map, the exposed rocks are divided into two classes. The main part of the Leckie tunnel is in a dark gray nearly black rock with a faint greenish cast in places. Under the microscope it is seen to consist mainly of siderite, calcite and quartz, with smaller amounts of actinolite, serpentine, talc, pyrite, arsenopyrite and pyrrhotite. All of the above minerals are thought to be of secondary origin and the original nature of the rock cannot be determined. For want of a better name it may be referred to as ferro-dolomite.

1945

**Olympic Gold
Mines, Ltd.**

(50° 122° N.W.) Company office, 744 Hastings Street West, Vancouver, B.C.; G. S. Eldridge, President. Capital: 1,500,000 shares, no par value; issued, 924,903. This company owns the Olympic group of claims on the south side of the Bridge River opposite Minto. The property is fully described in the Annual Report of the Minister of Mines for 1934 and further work is noted in the report for 1935. Since then the property has been idle until the present programme of diamond-drilling was begun early in 1945.

Several drill-holes were put down, from a point on the surface adjacent to the lower adit, to explore the shear at shallow depth. It is reported that one or two interesting intersections were obtained.

The drill was then moved underground and a series of holes laid out to intersect the shear from the end of the lower adit. A short crosscut was also driven and a shaft collared at the end of it 75 feet above an interesting intersection obtained in drilling from the surface. The work is being done by Keyes Construction under the supervision of J. H. Marshall.

Hillstake Mining Co.—(50° 122° N.W.) This company owns some thirty-one claims that include the ground of the Reliance property on the south side of the Bridge River, opposite the Congress mine. During 1945 one man did 50 feet of crosscutting for E. R. Shepherd.

1946

**Olympic Gold
Mines, Ltd.**

Company office, 744 Hastings Street West, Vancouver. G. S. Eldridge, President. Capital: 1,500,000 shares, no par value. This company owns the Olympic group of twenty-three Crown-granted mineral claims on the south side of the Bridge River opposite Minto. A 6- by 9-foot winze, which was collared in 1945 about 200 feet inside the Leckie adit, was sunk to a depth of 85 feet on contract by J. Hagmo and P. Sandmo, of Minto. Air was supplied by a portable compressor, and a small air-hoist was used for hoisting. At a depth of 75 feet in the shaft two crosscuts were driven—one 25 feet east and the other 30 feet west, and from the former crosscut 70 feet of drifting was done on a vein. It is reported the vein showed only in the lower part of the drift. The winze was allowed to flood after this work was completed.

This company also did some diamond-drilling on the B. R. Jewel (former Ho Bo group) and also some underground work on the Lucky Jem group in Eldorado Basin.

Lucky Jem.

This property is in Eldorado Basin, at the headwaters of Eldorado Creek, a northern tributary of Gun Creek, which flows into the Bridge River. Olympic Gold Mines, Limited, hold a 75-per-cent. interest in the property. It is reported that 50 feet of adit was driven in 1945. In 1946 a contract was let to J. Hagmo and P. Sandmo, of Minto, who drove 225 feet of adit by hand-steel.

Christie.

This group is a relocation in 1945 by J. Hagmo, of Minto, of six claims and a fraction, formerly the old Kelvin group, adjoining the property of Olympic Gold Mines, Limited, on the west. No work has been done since 1936. The main workings consist of an adit driven about 150 feet below the surface outcrop. In this adit a narrow vein is followed for 150 feet in greenstone and apparently for another 500 feet in argillite. In 1946 four diamond-drill holes were put down from the surface to intersect the vein 150 feet below the adit. Two holes were drilled by W. Davidson, of Minto, and two by E. M. Thomson and associates, of 510 Stock Exchange Building, Vancouver. All holes were less than 200 feet long; narrow vein intersections were reported.

The other rock which lies to the south is a blacker, coarser-grained rock in which some of the original felspar crystals are visible. Under the microscope it can be seen to consist of labradorite, hornblende with a large amount of secondary actinolite, serpentine, siderite, quartz and pyrite. The principal difference between this and the other rock is the presence of hornblende and labradorite. This rock was originally probably a basalt.

Near the end of the tunnel a fine-grained felsite dyke was encountered. It strikes north sixty-nine degrees west and dips south eighty degrees. There is a strong shear on the north contact which was followed to the east by a crosscut for twenty-five feet. The tunnel has been driven through the dyke for twenty-two feet and appears to be still in it. The rocks in the face are so altered that it is difficult, if not impossible, to determine even by the use of the microscope, whether or not the tunnel has passed completely through the dyke.

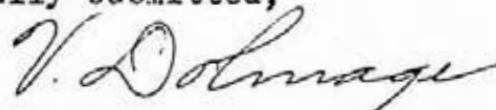
The above geological observations throw little new light on the problems of ore finding on this property, and do not affect the recommendations made in my preliminary report, except in one minor respect, namely; owing to the possibility of the above mentioned dyke not having been

Olympic Gold Mines - 4.

February 19th, 1935.






completely crossed by the tunnel and the further possibility of finding a vein on its south contact, I would recommend that the Leckie tunnel be continued until it is certain that the south contact of the dyke has been passed. This may not require more than a few rounds. Specimens from each round should be sent down for examination. If a vein of a promising character should be found, drifting to the east would be the logical line of development.

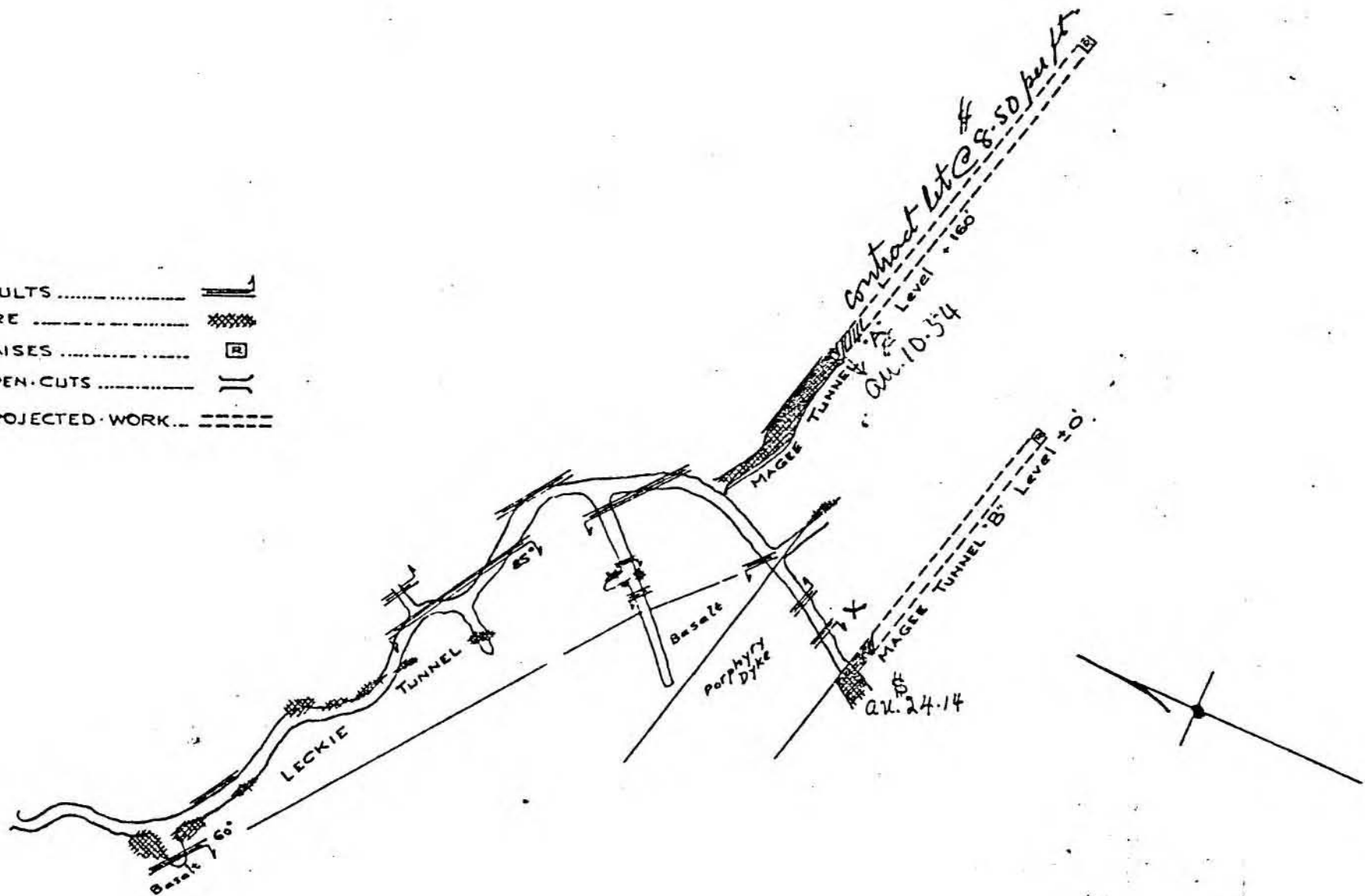
Respectfully submitted,

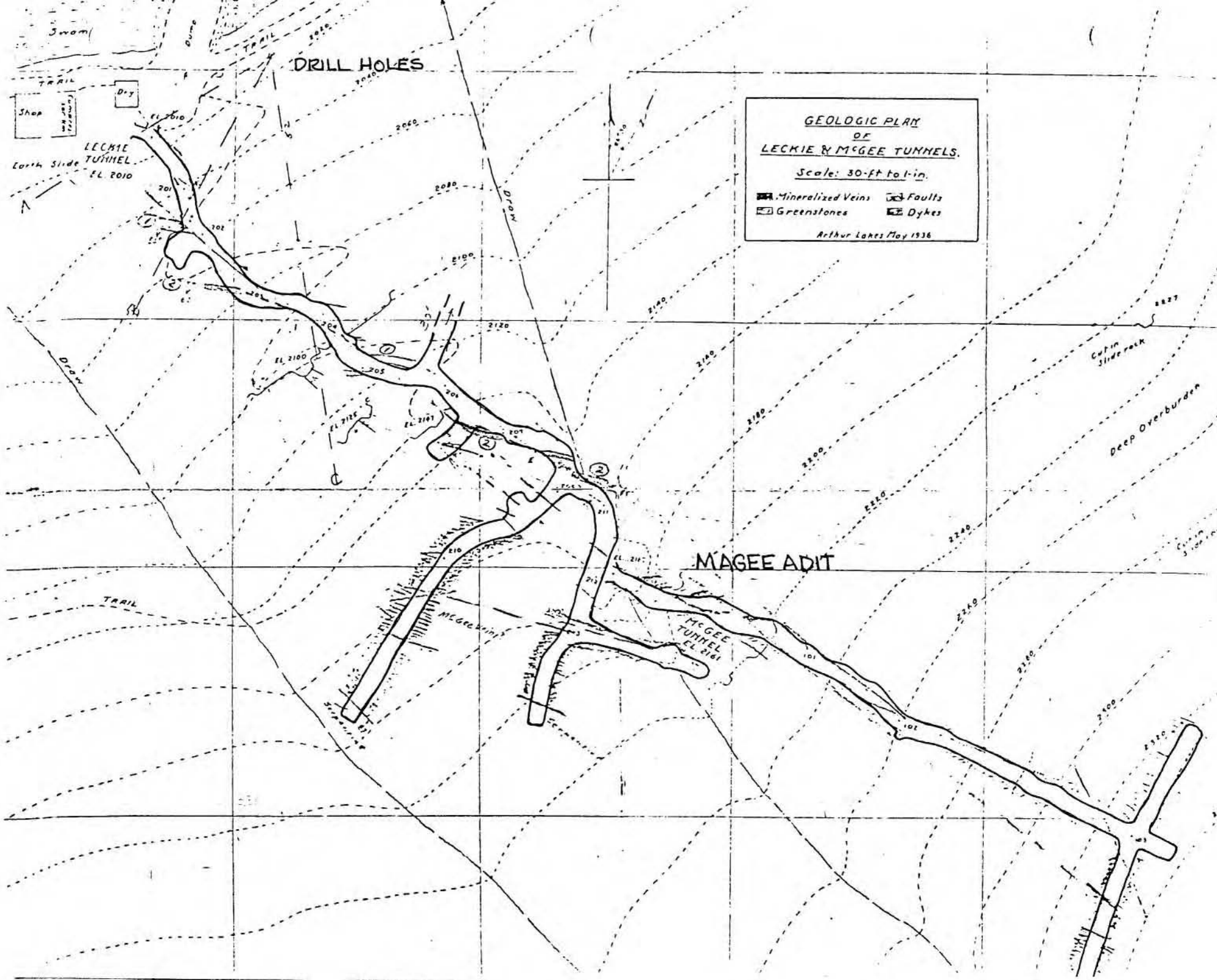
A handwritten signature in cursive script, appearing to read "V. Dolmage".

1318 Marine Bldg.,

Vancouver, B. C.

- FAULTS 
 ORE 
 RAISES 
 OPEN CUTS 
 PROJECTED WORK... 





**GEOLOGIC PLAN
OF
LECKIE & MCGEE TUNNELS.**

Scale: 30-ft to 1-in.

<p>■ Mineralized Veins</p> <p>▨ Greenstones</p>	<p>— Faults</p> <p>— Dykes</p>
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Arthur Lakes May 1936

0
11500

ANNUAL REPORT OF THE MINISTER OF MINES
FOR 1936.

Part F -- Special Report
by
B. T. O'Grady

KELVIN GOLD MINES, LIMITED. This Company's property, consisting of 18 surveyed mineral claims and fractions, in the Lillooet Mining Division, adjoins the Minto property to the south as shown on B. C. Department of Lands Map 21 T 269. The Kelvin workings, at elevations of 2,300 to 2,860 feet, are on both sides of Davidson creek, and on the steep to precipitous, wooded, rocky ground sloping to Bridge river which, at about 2,135 feet elevation, flows through flats half-a-mile wide. A branch road, three quarters of a mile in length, connects the power-house with the highway, which is north of the river, at Minto City about 35 miles from Bridge River station on the Pacific Great Eastern railway.

The formation is composed of rocks of the Bridge River series. Local exposures include greenstones and sediments, the interbedded rocks having a general northerly trend with complex local structures. In places greenstone grades imperceptibly into a purplish volcanic rock. Adjoining the main workings, and east of Davidson creek, these rocks are cut by a south-easterly-striking dyke, about 50 feet wide, of dense, fine-grained, light-coloured porphyritic rock, approaching andesite porphyry in composition. A polished section of selected mineralization, examined under the microscope, was composed of disseminated crystals of pyrite and arsenopyrite in a quartz carbonate gangue containing relatively large, irregular masses of sphalerite, galena, and chalcopyrite. Pyrite and arsenopyrite grains were in places fractured and veined by other sulphides. The deposits, frequently oxidized, are associated with zones of fracturing or shearing in altered, occasionally silicified, greenstone. The principal vein-shear follows a curving, irregular course with a general south-easterly strike, dips being south-westerly from 57 degrees to 85 degrees, or vertical. Low average gold and silver values are present over narrow widths in the greenstone but where the shear encounters sediments its walls diverge and become obscure, while mineralization is limited to finely disseminated pyrite. At another point, widely separated from the first mentioned occurrence, a short adit has been driven along a bending fracture which has a south-westerly strike and steep south-easterly dip. In this case the greenstone is altered with light scattered silicification, some pyrite being present in places.

The claims comprising the present property were located in 1933 and 1934 by John Hagmo and Ivar Aston. Preliminary development, chiefly consisting in driving the Bridge adit on the Patnor claim, together with prospecting on other claims, was then carried on by the Mintonia Mining Syndicate. Late in 1934 the Kelvin Gold Mines, Limited was incorporated to continue development.

Work, carried on during the summer months of 1936, included the driving of about 560 feet (to September 13th) of adit workings on the Pat Fraction and Alpha Extension No. 11 claims. On the Patnor claim, at the western end of the property, the Bridge adit is at 2,215 feet elevation. Going south-westerly up the steep slope from the portal, an outcrop has been trenched to 2,255 feet elevation but caving prevented inspection at most points. At 2,240 feet elevation there is a partial exposure consisting of calcite and oxidized streaks up to 3 inches wide following a south-westerly trend. The adit is driven first south 45 degrees west for 20 feet and then south 15 degrees west for 45 feet to the face. It follows the footwall-side of a sharply defined curving fracture, dipping south-easterly 65 degrees to 75 degrees in altered greenstone showing light scattered silicification with accompanying pyrite. Samples were taken across widths of 30, 32, and 12 inches at points 10, 52 and 65 feet in from the portal respectively. The corresponding assays were: (1) Gold, 0.08 oz. per ton; silver, trace; (2) Gold, 0.02 oz. per ton; silver, 0.1 oz. per ton; and (3) Gold, 0.01 oz. per ton; silver, 0.1 oz. per ton.

The Pat Fraction adit, where work has recently been proceeding, is at 2,300 feet elevation and 2,210 feet distant along a bearing of south 73 degrees 30 minutes east from the Bridge adit. This vein outcrop is exposed at intervals in the bluffs above, and to the south-east of, the portal of the adit and along the north-eastern edge of a rock-slide. At 2,525 feet elevation there is a showing 40 feet long which, from 5 to 11 inches wide, has sharply defined, approximately vertical walls cutting greenstone along strikes of south 15 degrees east to south 30 degrees east. A sample, across 5 inches of oxidized and decomposed vein filling, assayed: Gold, 0.58 oz. per ton; silver, 1.8 oz. per ton. Going south-easterly for 175 feet, to elevation 2,610 feet, there is a similar showing, 4 to 6 inches wide and 15 feet long, in greenstone. Continuing in the same direction to 2,860 feet elevation, there is a sheared fracture, in silicified greenstone, striking south 25 degrees east and dipping 80 degrees south-westerly. A section sampled here consisted of 40 inches of rusty, sheared rock on the hangingwall-side; 3 inches of disseminated pyrite and arsenopyrite in quartz; and 12 inches of silicified, pyritized, greenstone on the footwall-side. The corresponding assays in the same order, were: (1) Gold, 0.03 oz. per ton; silver, trace; (2) Gold, 0.06 oz. per ton; silver, 0.15 oz. per ton; (3) Gold, trace; silver, trace. Above this point the outcrop is covered by talus, the 50-foot dyke, previously referred to, being exposed across the slide at 110 feet to the south-west of the sample location. Measuring from the portal, the Pat Fraction adit workings are described with reference to stations adopted for compass traverse, as follows: South 34 degrees east, 32 feet to #1; south 57 degrees 30 minutes east, 30 feet to #2; south 83 degrees east, 30.5 feet to #3; east, 27.5 feet to face at #3-A; (then reverting back to #3) south 18 degrees east, 127.5 feet to #4; south 23 degrees east, 39 feet to #5; south 37 degrees east, 34.5 feet to #6; south 52 degrees east, 34 feet to #7; south

51 degrees east, 29 feet to #8, south 40 degrees east, 29.5 feet to #9; south 62 degrees east, 29.5 feet to #10; south 47 degrees east, 51.5 feet to #11 at the face on September 13th, 1936. Crosscuts extend 22 feet to south 28 degrees west from the No. 4 station and 41 feet to south 22 degrees west from No. 7 station.

The shear is first intersected at No. 3 station, 92.5 feet in from the portal and is followed by the drift, in greenstone, to chainage 110 feet on the course between No. 3 and No. 4 stations. At this point the hanging-wall fracture is well-defined dipping at 65 degrees to the south-west. Just south-east of here, at chainage 133 and on the same course, this wall bends south-westerly and dips 57 degrees north-westerly where dark, silicified sediments are encountered. Except for small patches of flesh-coloured, altered, probably volcanic rock towards the face, the rest of the workings to the south-east are in these sediments which are soft and crushed in part and contain quartz and calcite streaks, finely disseminated pyrite being present at many points. The following samples were taken at chainages referred to the northern side of the crosscut opposite No. 3 station:

Chainage in feet	Width inches	Gold Oz. per ton	Silver Oz. per ton	Chainage in feet	Width inches	Gold Oz. per ton	Silver Oz. per ton
Zero	9	0.03	0.1	50	12	0.20	Trace
15	6	0.08	0.4	60	12	0.94	1.1
30	10	0.02	Trace	75	10	0.30	0.9
45	12	0.10	1.0	90	11	0.20	1.0
				105	43	0.10	0.6

Of these, the sample at chainage 50 contained 2.6 per cent zinc. A selected sample from the same place gave: Gold, 0.42 oz. per ton; silver, 0.1 oz. per ton; lead, nil; zinc, 5.0 percent. The sample at chainage 60 was oxidized and decomposed. In addition to the above, fifteen samples spaced at 15-foot intervals, were taken, across drift widths south-east of No. 4 station going towards the face. Of these, fourteen assayed a trace in gold and silver per ton and one assayed: Gold, 0.01 oz. per ton; silver, 0.4 oz. per ton. Samples taken along the south-eastern walls of the two crosscuts gave from a trace to nil in gold and silver. This sampling was done to ascertain if low values existed over a considerable area as had been suggested.

On the south-western side of the rock-slide, at 2,475 feet elevation, there is a short adit situated 360 feet south of the portal of the above described Fat Fraction adit. This working, driven south 65 degrees east for 25 feet, then south 15 degrees east for 7 feet to the face is, through its first course, in iron-stained argillaceous sediments along the foot-wall of the large dyke previously referred to, the last 7 feet being in the dyke which locally strikes south 70 degrees east and has an irregular south-westerly dip of about 75 degrees. Work was suspended at the property in October 1936.

CERTIFICATE

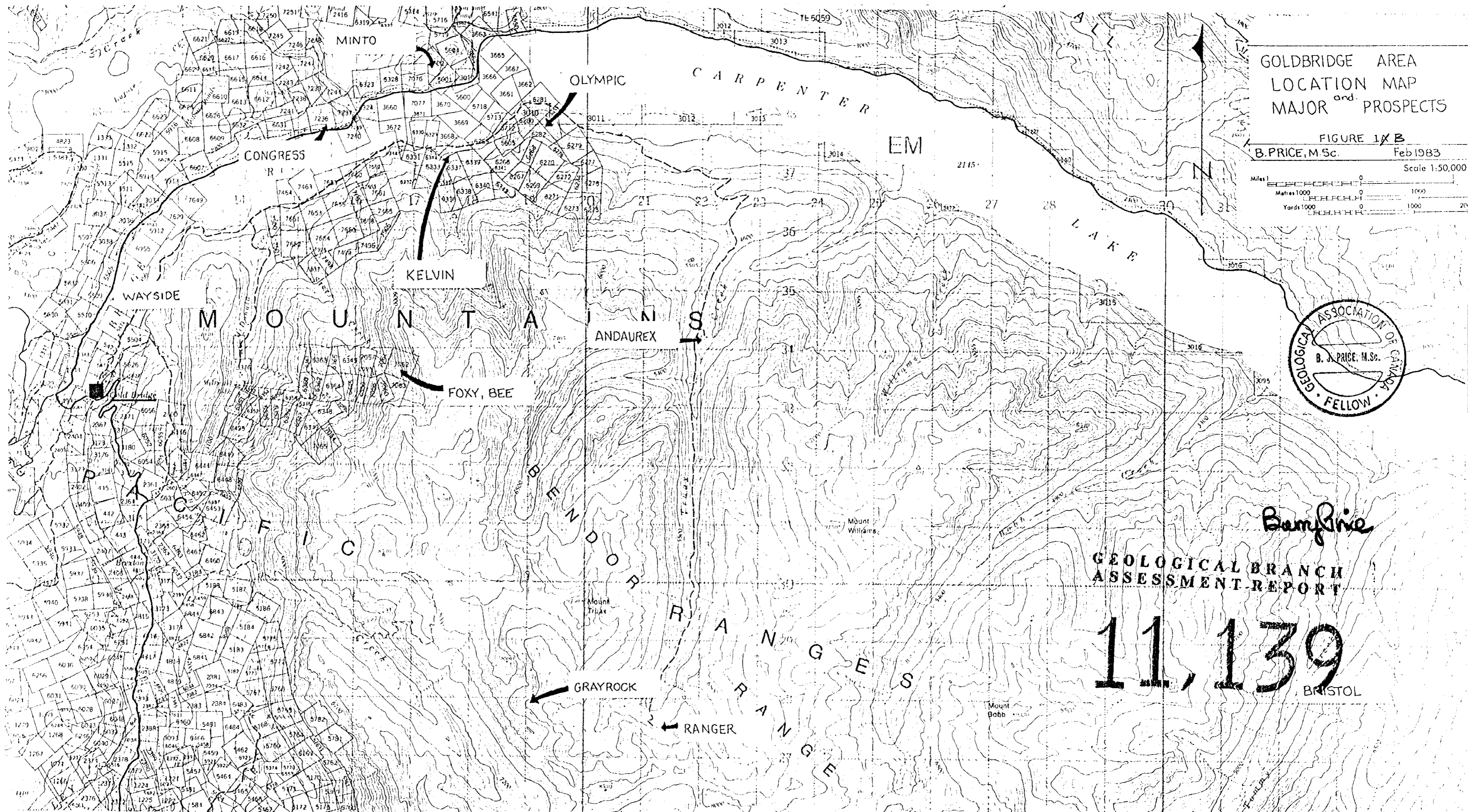
I, Barry James Price, with business address at 2121 West 5th Avenue, Vancouver, British Columbia, do hereby certify that:

- 1) I am a consulting geologist.
- 2) I have worked for 15 years in my profession.
- 3) I am a graduate of the University of British Columbia, Vancouver, B.C. and have obtained a B.Sc. (Honors Geology) in 1965 and a M.Sc. in Economic Geology in 1972.
- 4) I am a Fellow of the Geological Association of Canada and I am entitled to use their seal.
- 5) I have written this report at the request of C.F. Resources Ltd.
- 6) I do not have any direct or indirect interest in the property or securities of C.F. Resources Ltd. nor do I intend to acquire any interest, and will receive only normal consulting fees for the preparation of this report.
- 7) I have based this report on available geological reports of the property and adjacent mineral deposits and on an inspection and sampling trip to the property on June 15, 1983.

Barry Price

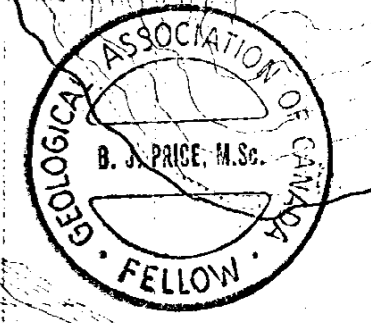
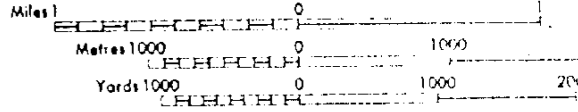
BARRY J. PRICE, M.Sc., F.G.A.C. 1981
July 30, 1983





GOLDBRIDGE AREA
LOCATION MAP
MAJOR and PROSPECTS

FIGURE 1XB
B. PRICE, M.Sc. Feb 1983
Scale 1:50,000



Bamfric
GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,139
BRISTOL

D. B. INGRAM

OLYMPIC - KELVIN
PROPERTY

TOPOGRAPHY and WORKINGS



Bam'nic

B. J. PRICE, M.Sc.

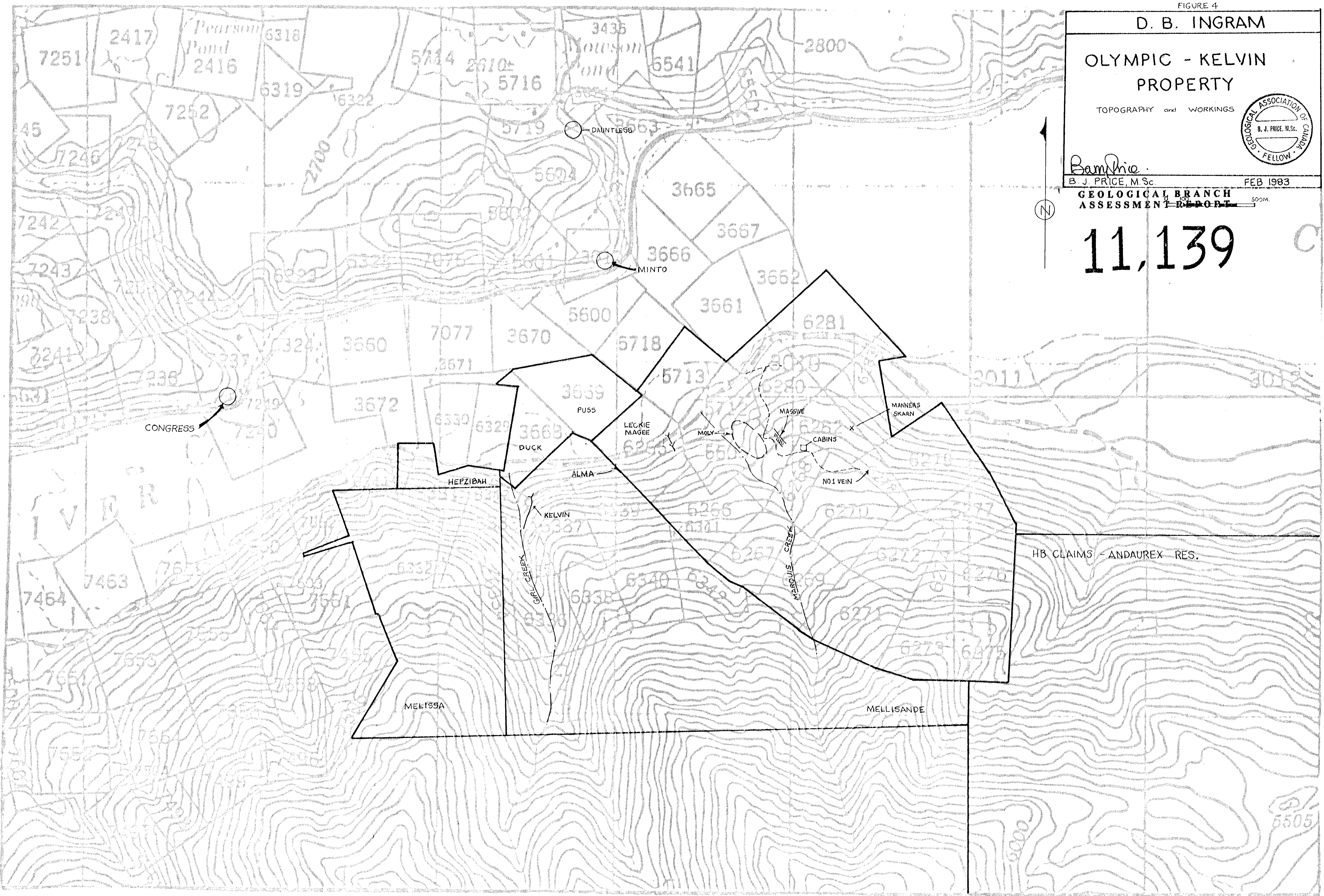
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HB CLAIMS - ANDAUREX RES.

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