

NTS 92F/5E

830701

KILO GOLD MINES LTD.

EXPLORATION - 1985

YOU GROUP GOLD PROPERTY

BEDWELL RIVER, BRITISH COLUMBIA

Trigg, Woollett, Olson Consulting Ltd.

December 1985

D. N. Berthelsen
R. A. Olson

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EXPLORATION - 1985

YOU GROUP GOLD PROPERTY

BEDWELL RIVER, BRITISH COLUMBIA

SUMMARY

Exploration, which included grid surveying, geological mapping, geochemical sampling, prospecting, overburden stripping, rock sampling and geophysical surveying, was performed at YOU group between September 25 and November 9, 1985.

YOU group is underlain mainly by Bedwell batholith quartz diorite. Two subparallel, gold-bearing quartz veins exist along narrow northeast trending shear fractures which cut the quartz diorite. The Main vein, on which a 103 m long adit has been driven, is exposed intermittently along a creek bed for approximately 1,250 m and is generally less than about 0.25 m wide. Chip sampled intervals across the Main vein in the upper adit assay up to 377.46 grams gold per tonne across 0.10 m, although most sampled intervals assay less than 100 grams gold per tonne across about 0.30 m. A second, smaller vein, the A vein, was discovered along a creek which is about 180 m northwest of the Main vein. The A vein is traceable intermittently for approximately 65 m and is generally less than about 0.10 m wide. Chip sampled intervals across the A vein assay up to 103.72 grams gold per tonne across 0.07 m, although most sampled intervals assay less than 25 grams gold per tonne across about 0.10 m. Both the Main and A veins are covered by overburden at their strike extensions and locally along their lengths. Pyrite is the dominant sulphide in both veins; sphalerite, galena, chalcopyrite, tetrahedrite and arsenopyrite are also present. Generally, the more sulphide there is, the higher the gold and silver contents.

Anomalous values of gold, and certain other elements, exist locally in soil and stream sediment within YOU group. Most of the anomalous sample sites are in the vicinity of the two gold-bearing veins or along possible extensions of these veins. There are, in addition, several unexplained geochemically anomalous sample sites within YOU group.

Very low frequency electromagnetic and magnetic surveys were performed on four selected crosslines to evaluate the usefulness of these techniques to discover quartz veins and/or shear fractures. No significant geophysical responses were observed.

Further exploration is required at YOU group. Exploration should include: (a) detailed follow-up prospecting and geochemical soil sampling at selected geochemically anomalous sample sites to evaluate whether they reflect undiscovered gold-bearing veins, (b) geological mapping at selected

locales, and (c) overburden stripping and, possibly, rock trenching at a few places to evaluate the strike extensions of the Main and A veins, or any other gold-bearing veins that may be discovered. Geochemical soil samples which are collected should be analyzed for gold. Other types of exploration at YOU group should await the results of the recommended follow-up program.

The recommended program would require a crew consisting of a geologist, a prospector and a geological assistant and would take about four field weeks to complete. The program would be performed in two stages at a total cost of \$70,000.

INTRODUCTION

Location, Access, Topography

YOU group of mineral claims is in Alberni Mining Division on Vancouver Island within National Topographic System (NTS) map-sheet 92F/5E (Dwg. 5101-4). The claim group is centered on 49°26'45"N latitude and 125°36'W longitude. The property is traversed by You Creek, a tributary of Bedwell River which flows into Bedwell Sound, 20 km to the southwest.

Access to YOU group is by helicopter from Tofino airport, which is 43 km to the southwest of the property. An old road exists from the north end of Bedwell Sound to the northwest corner of YOU group; however, much clearing of bush and rebuilding of bridges would have to be done before the road would be useable.

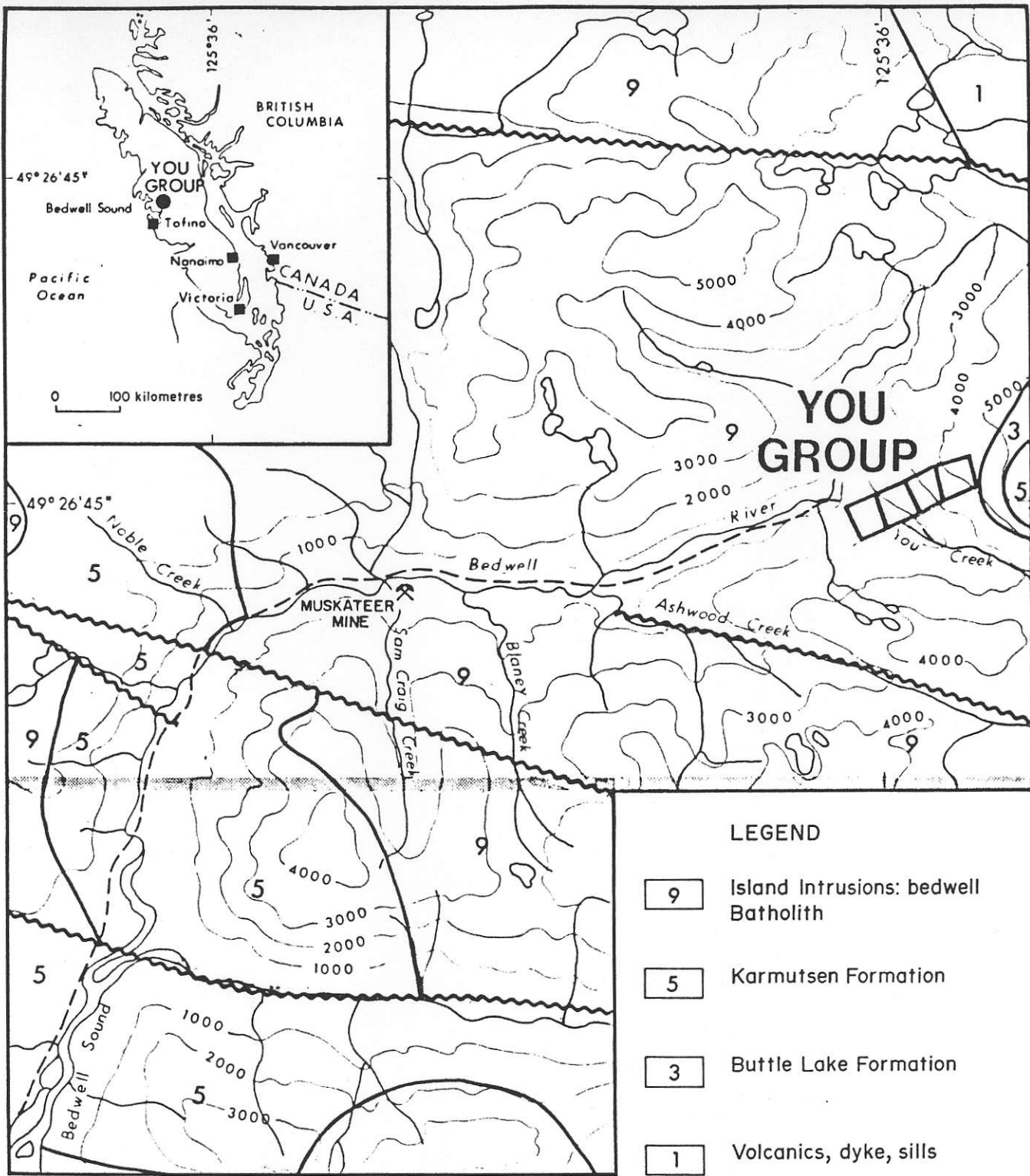
The elevation at YOU group ranges from 320 m along You Creek to 1,300 m at the east end of the property. Several north-northwesterly trending vertical cliffs exist, some of which reach heights of 50 m or more. As well, deep, near vertical gorges exist locally along You Creek and two tributaries, named Adit Creek and Kilo Creek (Dwg. 5101-5).

Mineral Claim Status

YOU group consists of EX (1644), TEN (1645), YOU (1646) and EIGHT (1647) crown-granted mineral claims. The claim group encompasses a total of 188.85 acres (76.43 ha).

History

Gold was placer mined from Bedwell River in 1862 (Trigg, 1985). In 1912, YOU group was staked when high grade gold assays were obtained from samples taken from a quartz vein. The YOU group of four mineral claims was crown granted in 1921. By 1933 a 103 m long adit, the upper adit, was driven along a gold-bearing quartz-sulphide vein. In addition, a 2 m long adit, the lower adit, was driven on the same vein, but about 37 m downslope. Minor stoping and milling, in a 10 ton mill, were performed in 1933



- SYMBOLS**
- Mine
 - Road and Trail
 - Geological Contact
 - Fault
 - Park Boundary
 - Claim Boundary

KILO GOLD MINES LTD.

YOU GROUP GOLD PROPERTY

LOCATION

NTS 92F/5E
ALBERNI MINING DIVISION

SCALE KILOMETRES

TRIGG, WOOLLETT, OLSON CONSULTING LTD.

EDMONTON, ALBERTA DECEMBER, 1985

(MacLeod, 1981). In 1938, sampling of the upper adit's back at five feet [1.52 m] intervals was carried out by McIntyre Porcupine Mines Ltd. (Trigg, 1985). Sampling of the upper adit and compilation of data were also carried out by Smitheringale (1940) for A. B. Trites, by Cleveland in 1940 and by Wilson in 1944 as reported by Calmac Gold Mines Ltd. (1963), by Aho (1960) for Tanar Gold Mines, by Campbell (1965) for Calmac Gold Mines Ltd., and by MacLeod (1981) and Magee (1982) for You Mining Company Limited. In 1960, stripping was performed locally along Adit Creek, presumably to aid in Aho's (1960) sampling. At present, the property is under option by Kilo Gold Mines Ltd. from French Creek Placers Ltd.

1985 Exploration

Two hundred and twenty-four man-days of field work, which included crew mobilization and demobilization, camp construction, grid surveying, geological mapping, geochemical sampling, prospecting, overburden stripping, rock sampling and geophysical surveying, were performed at YOU group between September 25 and November 9, 1985 (Appendix I). Exploration included: (a) establishing a total of 15.6 line-km of grid, (b) prospecting and geological mapping at a scale of 1:2,500 of most of the topographically lower portions of the property, (c) geological mapping of the Main vein in the upper adit and of a newly discovered vein, the A vein, at a scale of 1:200, (d) collecting 723 geochemical soil samples, 76 geochemical stream sediment samples and 85 rock samples, (e) overburden stripping of portions of the A vein, and (f) performing 1.66 line-km of very low frequency electromagnetic (VLF-EM) and magnetic surveys along four selected crosslines. The cost of 1985 exploration is tabulated in Appendix II.

GEOLOGY

YOU group is within the northeastern flank of Bedwell batholith, a middle to upper Jurassic intrusion of quartz diorite composition (Muller and Carson, 1968). The batholith is about 50 km long by 6 to 16 km wide, and trends northwestward along the western side of Vancouver Island. The country rocks adjacent to the batholith include Pennsylvanian and older Sicker Group volcanics, early Permian Buttle Lake Formation limestone and chert, and late Triassic and older Karmutsen Formation volcanics. Bedwell batholith typically has sharp contacts, and in many places the contacts are major northwest trending regional faults (Muller and Carson, 1968). "Tensional fracturing apparently related to the northwest faults has developed a series of narrow northeast trending shear fractures ..." (Campbell, 1965). These shear fractures follow a main joint direction which trends at about 050 degrees and dips steeply (Sargent, 1940). Other minor joint sets trend at 030 degrees and 080 degrees. The shear fractures "... have been mineralized extensively by quartz and locally gold." (Campbell, 1965). This type of gold-bearing shear vein has been classified as Zeballos-type and includes the veins of the former Ptarmigan and

Muskateer mines and, presumably, Checkmate Resources Ltd.'s Pandora property (Trigg, 1985).

Besides quartz diorite and the quartz veins which locally exist along shear fractures, there are, in places, light to medium green andesite to andesitic feldspar porphyry dykes (Dwg. 5101-5). Most of these dykes follow the main joint direction of about 050 degrees, and they sometimes occur along the same shears that contain gold-bearing quartz veins. The dykes range from 0.2 m to 5.0 m in thickness.

GOLD-BEARING VEINS

At least two gold-bearing quartz veins are present within YOU group. The Main vein is exposed intermittently along Adit Creek and continuously for 103 m in the upper adit. A second, smaller vein, the A vein, was discovered in Kilo Creek 180 m to the northwest of the upper adit portal. This vein is exposed intermittently along Kilo Creek.

The Main vein ranges from 0.10 to 0.55 m wide, with an average width of approximately 0.25 m in the upper adit, and occurs along a shear that cuts Bedwell batholith quartz diorite. Prior to deposition of the Main vein, the shear was intruded by a light green andesite dyke that ranges from 0.15 to 1.20 m wide in the upper adit. The Main vein follows the northwestern wall of the dyke throughout most of the adit's length. Locally, however, the vein cuts the dyke and andesite exists on either side of the vein (Dwg. 5101-6). The strike and dip of the Main vein in the first 60 m of the upper adit averages 060 degrees/85 degrees northwest. In the next 25 m of the adit the strike of the vein ranges from 053 to 043 degrees and the dip ranges from 85 degrees to 88 degrees northwest. In the final 18 m of the adit, the strike and dip of the vein averages 055 degrees/ 88 degrees southeast. The Main vein is traceable on surface as a discrete vein for about 125 m, and geological mapping by Aho (1960) indicates that along strike a vein system can be followed intermittently for about 1,250 m along Adit Creek. It is not certain, however, that all the veins which are exposed along Adit Creek, particularly in its upper reaches, are part of a single vein or vein system.

Quartz, some carbonate and variable amounts of sulphide exist in the Main vein (Dwg. 5101-6). Minor amounts of chlorite alteration and silicification exist in the quartz diorite and andesite dyke where they are in contact with the quartz vein. Fault gouge from 0.01 to 0.05 m wide, which consists of crushed wall rock and, locally, quartz and sulphides, is commonly present along the vein walls. Sulphides, however, are more common as crude bands and irregular masses within the vein. Pyrite is the dominant and earliest sulphide deposited (McKechnie, 1960); lesser amounts of sphalerite, galena, chalcopyrite, tetrahedrite and arsenopyrite are also present. Finely disseminated pyrite also occurs commonly in the neighboring andesite and quartz diorite. Quartz within the vein is vuggy, crystalline, easily broken and sometimes ribboned parallel to the vein walls. A white

quartz-carbonate vein occurs along the contact between the andesite dyke and the quartz diorite country rock in several places throughout the length of the adit; this vein is barren of sulphides and gold.

The A vein at Kilo Creek is comprised of two segments that are approximately 42 m apart, and together have a total strike length of about 65 m (Dwg. 5101-6). The two veins both strike about 052 degrees and dip about 68 degrees northwest. They are subparallel in strike with the Main vein. The lower vein segment is exposed for 7 m and averages about 0.05 m in width. The upper vein segment is exposed for about 16 m. It averages about 0.20 m in width and locally reaches 0.25 m wide. The upper and lower vein segments continue to the northeast and southwest, respectively, but both are buried by at least 0.5 m of overburden along their strike extensions.

The mineralogy and textures of the A vein are generally similar to those of the Main vein. The predominant difference is that there is no andesite dyke in the shear along which the A vein occurs. Fault gouge is present in a number of places along the A vein, but the gouge is generally less than 0.02 m wide. Pyrite is the most abundant sulphide present; small amounts of sphalerite and arsenopyrite also exist locally. In general, the A vein contains a smaller amount of sulphide than does the Main vein. Minor amounts of chlorite alteration and silicification, as well as 1 to 2 per cent finely disseminated pyrite, exist in the quartz diorite immediately adjacent to the A vein.

GEOCHEMICAL SOIL AND STREAM SEDIMENT SURVEYS

Seven hundred and twenty-three geochemical soil samples and 76 geochemical stream sediment samples were collected at YOU group (Dwg. 5101-7; Appendix III). Soil samples were collected from the B soil horizon wherever possible, or from the A soil horizon if no B horizon was present. About 90 per cent of the soil samples are from the B soil horizon. Soil samples were collected at 20 m intervals along crosslines that are 50 m apart. Samples could not be collected at some locations due to insufficient soil or rock cliffs.

All geochemical soil and stream sediment samples were analyzed for gold, silver, copper, lead and arsenic by Bondar-Clegg & Company Ltd., North Vancouver, British Columbia (Appendices IV and V). Gold in soil and stream sediment are shown on drawing 5101-8; silver, copper, lead and arsenic anomalies in soil and stream sediment are shown on drawing 5101-9. Geochemical distribution histograms and probability plots exist on both drawings and explain the symbols used to denote a specific range of analytical values.

Soil

Soil samples contain up to 5,700 parts per billion (ppb) gold, 4.7 parts per million (ppm) silver, 196 ppm copper, 920 ppm lead and 625 ppm

arsenic. Approximately 10 per cent of the soil samples contain 200 ppb gold or greater; about one-half of these samples occur within 40 m of the Main or A gold-bearing quartz veins or along possible extensions of these veins (Dwgs. 5101-5 and 5101-8). The other one-half of the soil samples that contain 200 ppb gold or greater tend to be spatially isolated; that is, they occur alone or in small groups. The spatial distribution of higher values of silver, copper, lead and arsenic in soil generally follows that of gold. There is, however, a large group of high values between lines 46+50E and 49+00E, northwest of 52+00N (Dwg. 5101-9); this group of high values is to the west and downhill of the A vein.

Duplicate and replicate soil samples were collected during the geochemical soil survey in order (a) to evaluate the within-site variability of gold in soil, (b) to ensure that the geochemical laboratory obtained consistent analytical results, and (c) to follow-up a few selected anomalous sample results. Twenty-six duplicate and replicate soil samples were collected; that is, about one out of every 30 sample sites was resampled (Table I). In general, the results from the duplicate and replicate soil samples are closely comparable to the results of the original soil samples. There are, however, a few duplicate and replicate soil samples that differ considerably from the original soil sample result.

Stream Sediment

Stream sediment samples contain up to 16.05 grams per tonne (g Au/t) gold, 20.0 ppm silver, 112 ppm copper, 1,340 ppm lead and greater than 1,000 ppm arsenic. About 50 per cent of the stream sediment samples contain 200 ppb gold or greater, and about 30 per cent of the samples contain 1,000 ppb gold or greater. Sixteen of 17 samples which were collected along Adit Creek, contain 200 ppb gold or greater; 12 of these 17 samples contain between 1,000 ppb and 16.05 g Au/t. Seven of 11 samples which were collected along Kilo Creek southwest of line 51+00E, contain 200 ppb gold or greater; 5 of these 11 samples contain between 1,000 ppb and 13.95 g Au/t (Dwg. 5101-8). Values of 1,000 ppb or greater are not found on any other creeks within YOU group, except locally along You Creek.

PROSPECTING, ROCK SAMPLING

Most of YOU group was prospected, except for the upper one-third of TEN mineral claim and most of EX mineral claim where snow cover in late October prevented further exploration. Eighty-five rock samples were collected: 43 rock samples were collected from the Main vein in the upper adit, 22 rock samples were collected from the A vein and 20 rock samples were collected during reconnaissance prospecting.

Certain gold-bearing portions of the Main vein in the upper adit were resampled in order to confirm previous sampling results and to better define the position of gold within the vein. Sample locations, descriptions

and results are shown on drawing 5101-6. The Main vein in the upper adit has been sampled by several other workers in the past, as summarized by Trigg (1985). The gold grade across width results of this earlier sampling is compared with those obtained during 1985 exploration in Table II. Gold in the Main vein is closely associated with sulphides (Dwg. 5101-6). Generally, the more sulphide there is, the higher the gold content. Free gold has been found after crushing and panning sulphide-rich samples, but the gold is generally too fine to be seen in hand specimen. Silver accompanies gold and is, therefore, closely associated with sulphides as well.

Prospecting was concentrated northwest of the upper adit where a 10 ounce gold per ton (342.86 g Au/t) grab sample was reported to have been collected from a vein in a creek (Campbell, 1965). This prospecting led to the discovery of the A vein (Dwg. 5101-6). The lower of the two vein segments which comprise the A vein, assays up to 103.72 g Au/t across 0.07 m in rock chip sampled intervals and up to 197.39 g Au/t in rock grab samples (Table III). The upper part of the A vein assays up to 11.11 g Au/t across 0.13 m in rock chip sampled intervals.

Twenty rock grab or rock chip samples were collected during reconnaissance prospecting; rock sample locations are shown on drawing 5101-7. Of these rock samples, nine were collected from the Main vein in the vicinity of the lower adit; assays reach up to 35.25 g Au/t across 0.20 m in rock chip sampled intervals (Table III). For the other 11 rock samples, ten samples assay less than 1.0 g Au/t and sample 5DFM002 (49+40E, 52+35N) assays 3.84 g Au/t (Table III).

GEOPHYSICAL SURVEYS

VLF-EM and magnetic surveys were performed on four selected crosslines to evaluate the usefulness of these techniques to discover veins and/or shear fractures. No significant geophysical responses were observed (Appendix VI).

CONCLUSIONS

At YOU group, narrow, northeast trending shear fractures cut quartz diorite of Bedwell batholith. The shear fractures have been locally intruded by greenish andesite to andesitic feldspar porphyry dykes and filled by quartz or quartz-carbonate veins. At least two of the quartz veins which exist at YOU group are gold bearing. The Main vein is exposed intermittently along Adit Creek for approximately 1,250 m. The A vein exists in Kilo Creek about 180 m northwest of the Main vein. The A vein is subparallel to the Main vein, and it is traceable intermittently for approximately 65 m. Both the Main and A veins are covered by overburden at their strike extensions and locally along their lengths. Because of this, it is uncertain whether the vein segments which comprise the Main vein

system represent one continuous vein or a series of discontinuous, or perhaps even an echelon, veins. A similar uncertainty exists with respect to the A vein. Quartz, some carbonate and variable amounts of sulphide exist within both the Main and A veins. Pyrite is the dominant sulphide; sphalerite, galena, chalcopyrite, tetrahedrite and arsenopyrite are also present. Generally, the more sulphide there is, the higher the gold and silver contents. Chip sampled intervals across the Main vein in the upper adit assay up to 377.46 g Au/t across 0.10 m, although most sampled intervals assay less than 100 g Au/t across about 0.30 m. Chip sampled intervals across the A vein assay up to 103.72 g Au/t across 0.07 m, although most sampled intervals assay less than 25 g Au/t across about 0.10 m. These two gold-bearing veins, although locally having high gold contents, are not of sufficient width and average grade to be exploitable.

Anomalous values of gold, and certain other elements, exist locally in soil and stream sediment within YOU group. Most of the anomalous sample sites are spatially related to the Main and A veins. There exist, however, certain other geochemical anomalies that are not spatially near the known gold-bearing veins. The cause of these anomalies is uncertain, and further exploration is required to determine whether or not the anomalies are a result of undiscovered gold-bearing veins. Very few anomalous sites exist south of You Creek, and no further exploration is warranted at this part of YOU group property.

VLF-EM and magnetic surveying which was performed along four selected crosslines, did not discover significant responses associated with known quartz veins or shear fractures. Further surveying with these geophysical methods at YOU group is not warranted.

RECOMMENDATIONS

Further exploration is required at YOU group to follow-up selected geochemically anomalous soil and stream sediment samples and to evaluate the strike extensions of the Main and A gold-bearing veins. This exploration should include: (a) detailed follow-up prospecting and geochemical soil sampling at selected geochemically anomalous sample sites, (b) geological mapping at selected locales, particularly at and near gold-bearing veins, and (c) overburden stripping and, possibly, rock trenching at a few places to evaluate the strike extensions of the A and Main veins, or any other gold-bearing veins that are discovered (Dwg. 5101-10). Geochemical soil samples which are collected should be analyzed for gold. Other types of exploration at YOU group should await the results of the recommended follow-up program.

The recommended program would require a crew consisting of a geologist, a prospector and a geological assistant and would take about four field weeks to complete. The program should be performed in two stages.

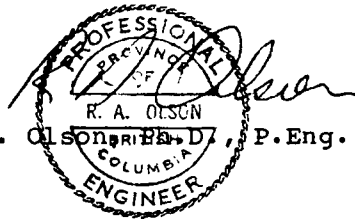
- (a) Initially, the geologist and geological assistant should perform follow-up geochemical soil sampling and preliminary prospecting at and near the geochemical anomalies that have been selected from the 1985 exploration results. This work should be performed out of Ucluelet using a helicopter for daily crew deployment.
- (b) Following the receipt and evaluation of the follow-up sampling data, the geologist, prospector and geological assistant should perform detailed prospecting and, as required, geological mapping, overburden stripping, rock trenching and soil and rock sampling at selected locales deemed of greatest interest. Depending on the amount of detailed follow-up required, the crew would either work out of Ucluelet using a helicopter for daily crew deployment, or establish a small camp on site.

The total estimated cost to perform the recommended exploration program is \$70,000 (Table IV).

Trigg, Woollett, Olson Consulting Ltd.



D. N. Berthelsen, B.Sc.



R. A. Olson, P. Eng.

December 20, 1985
Edmonton, Alberta

PERMIT TO PRACTICE	
TRIGG, WOOLLETT, OLSON CONSULTING LTD.	
Signature	<i>R. A. Olson</i>
Date	<i>December 20, 1985</i>
PERMIT NUMBER: 2374	
The Association of Professional Engineers, Geologists and Geophysicists of Alberta	

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CERTIFICATION

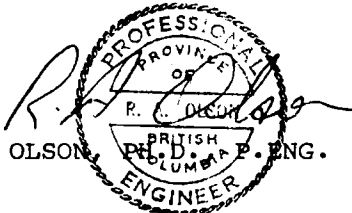
I, R.A. OLSON OF 8727 - 181 STREET, EDMONTON, ALBERTA CERTIFY AND DECLARE THAT I AM A GRADUATE OF THE UNIVERSITY OF BRITISH COLUMBIA WITH A B.SC. DEGREE IN GEOLOGY (1968), A GRADUATE OF THE UNIVERSITY OF WESTERN ONTARIO WITH A M.SC. DEGREE IN GEOLOGY (1971) AND A GRADUATE OF THE UNIVERSITY OF BRITISH COLUMBIA WITH A PH.D. DEGREE IN GEOLOGY (1977). I AM REGISTERED AS A PROFESSIONAL ENGINEER WITH THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF BRITISH COLUMBIA AND AS A PROFESSIONAL GEOLOGIST WITH THE ASSOCIATION OF PROFESSIONAL ENGINEERS, GEOLOGISTS AND GEOPHYSICISTS OF ALBERTA.

MY EXPERIENCE INCLUDES SERVICE AS AN EXPLORATION GEOLOGIST WITH TEXASGULF INC., VANCOUVER, BRITISH COLUMBIA. SINCE 1969 I HAVE CONDUCTED AND DIRECTED PROPERTY EXAMINATIONS, PROPERTY EVALUATIONS AND EXPLORATION PROGRAMS ON BEHALF OF COMPANIES AS A GEOLOGIST IN THE EMPLOY OF TRIGG, WOOLLETT & ASSOCIATES LTD., AND AS A PARTNER IN THE FIRM OF TRIGG, WOOLLETT CONSULTING LTD., AND TRIGG, WOOLLETT, OLSON CONSULTING LTD., EDMONTON, ALBERTA.

I HAVE NO DIRECT OR INDIRECT INTEREST IN KILO GOLD MINES LTD. OR THE GOLD PROPERTY DESCRIBED IN THIS REPORT, NOR DO I EXPECT TO RECEIVE SUCH INTEREST.

THIS REPORT BY D. N. BERTHELSEN IS BASED UPON FIELD WORK AND UPON STUDY OF PUBLISHED AND UNPUBLISHED DATA. THE WORK WAS PERFORMED UNDER MY SUPERVISION.

R.A. OLSON



The seal is circular with a double-line border. The outer ring contains the text 'PROFESSIONAL ENGINEER' at the top and 'BRITISH COLUMBIA' at the bottom. Inside the ring, the text 'PROVINCE OF' is at the top, 'R. A. OLSON' is in the center, and 'P. D. P. ENG.' is at the bottom. A handwritten signature is written across the seal.

DECEMBER, 1985
EDMONTON, ALBERTA

TABLE I

GOLD CONTENT OF DUPLICATE AND REPLICATE
GEOCHEMICAL SOIL SAMPLES

SAMPLES	GOLD (ppb)			GRID LOCATION
	ORIGINAL ¹	DUPLICATE ²	REPLICATE ³	
5DBS051, 5DBS052	5	55		52+50E, 50+20N
5DFS029, 5DFS030	50	80		56+50E, 49+40N
5JPS025, 5JPS026	360 (1,450)*	85 (460)*		58+00E, 50+20N
5JPS030, 5JPS031	10	85		54+50E, 50+40N
5JPS054, 5JPS055	<5	45		46+50E, 51+60N
5JPS073, 5JPS074	160	130		44+50E, 51+80N
5JPS104, 5JPS105	60	55		52+00E, 51+80N
5NIS031, 5NIS032	30	<5		55+00E, 49+80N
5NIS040, 5NIS041	160	160		55+00E, 50+40N
5NIS052, 5NIS053	15 (20)*	100 (10)*		54+00E, 50+20N
5NIS058, 5NIS059	45	50		54+00E, 51+40N
5NIS072, 5NIS073	40	95		47+50E, 51+40N
5NIS096, 5NIS097	20	10		43+50E, 51+40N
5NIS128, 5NIS129	130	150		52+50E, 52+40N
5NIS147, 5NIS148	85	130		47+75E, 52+40N
5SRS023, 5SRS024	100	140		55+50E, 51+00N
5SRS046, 5SRS047	60	<5		52+00E, 49+40N
5SRS060, 5SRS061	20	<5		51+50E, 50+00N
5SRS079, 5SRS080	40	15		50+50E, 48+40N
5SRS106, 5SRS107	<5	<5		45+50E, 49+80N
5SRS133, 5SRS134	<5	<5		43+00E, 51+40N
5SRS052, 5DBS111	3,800 (5)*		25 (50)*	51+50E, 48+20N
5SRS051, 5DBS113	300 (10)*		95 (15)*	51+50E, 48+00N
5SRS071, 5DFS080	400		150	50+50E, 50+00N
5NIS083, 5SRS111	<5		<5	45+00E, 50+00N
5NIS099, 5SRS121	<5		<5	43+50E, 50+00N

¹Original is the first sample taken at a site.

²Duplicate is the second sample taken at the same site, immediately following collection of the original sample.

³Replicate is a follow-up sample taken at the same site, but collected at some later time.

* Samples which were re-assayed because of the considerable difference in gold values between duplicate or replicate sample pairs.

TABLE II

COMPARISON OF RESULTS FROM MAIN VEIN IN UPPER ADIT

<u>DISTANCE FROM PORTAL (m)</u>	<u>GOLD ASSAY (g Au/t)</u>	<u>WIDTH OF VEIN (m)</u>	<u>REFERENCE</u>
3.65	205.03	0.56	CLEVELAND (1940)
3.65	96.00	0.45	WILSON (1944)
3.65	77.66	0.45	BERTHELSEN (1985)
4.55	141.94	0.53	SMITHERINGALE (1940)
4.55	351.77	0.58	WILSON (1944)
4.55	189.73	0.55	BERTHELSEN (1985)
43.60	115.54	0.61	SPARKS (1938)
44.80	209.83	0.25	SMITHERINGALE (1940)
44.20	146.74	0.25	WILSON (1944)
44.20	28.66	0.33	BERTHELSEN (1985)
63.40	116.63	0.25	CLEVELAND (1940)
63.40	77.03	0.20	BERTHELSEN (1985)
71.60	143.31	0.30	CLEVELAND (1940)
71.60	99.17	0.29	BERTHELSEN (1985)
	(56.64)*		

*This location was sampled twice by Berthelsen (1985).

TABLE III

ROCK SAMPLES COLLECTED DURING PROSPECTING

<u>SAMPLE</u>	<u>ASSAY</u>		<u>SAMPLE</u>		<u>DESCRIPTION</u>	<u>GRID LOCATION</u>
	<u>g Au/t</u>	<u>g Ag/t</u>	<u>TYPE</u>	<u>WIDTH (m)</u>		
<u>SAMPLES FROM A VEIN</u>						
5DFM003	144.76	113.8	Grab	0.05	Quartz vein; 35% sulphides	49+40E, 52+35N
5DFM004	197.39	100.8	Grab	0.05	Fault gouge; sulphide-rich	49+40E, 52+35N
5DFM006	0.51	2.1	Chip	0.04	Wall rock and quartz	49+80E, 52+10N
5DFM007	0.21	0.7	Chip	0.13	Quartz vein; minor sulphides	49+80E, 52+10N
5DFM008	3.46	8.9	Chip	0.04	Quartz vein; 15% sulphides	49+80E, 52+10N
5DFM009	0.55	1.0	Chip	0.04	Fault gouge	49+80E, 52+10N
5DFM010	1.20	2.1	Chip	0.11	Quartz vein; 10% sulphides	49+90E, 52+10N
5DFM011	0.14	<0.7	Chip	0.08	Wall rock; 5% pyrite	49+90E, 52+10N
5DFM012	0.69	0.7	Chip	0.25	Quartz vein; 5% sulphides	50+10E, 52+10N
5DFM013	0.34	3.1	Chip	0.07	Fault gouge	50+10E, 52+10N
5DFM019	103.72	59.6	Chip	0.07	Quartz vein; 5% sulphides	49+39E, 52+35N
5DFM020	0.07	1.7	Chip	0.08	Quartz diorite; 5% sulphides	49+38E, 52+35N
5DFM021	41.97	29.1	Chip	0.06	Quartz vein; 5% sulphides	49+38E, 52+35N
5DFM022	66.07	36.0	Chip	0.16	Quartz vein; 5% sulphides	49+36E, 52+35N
5DFM023	22.49	25.4	Chip	0.05	Quartz vein; 5% sulphides	49+33E, 52+35N
5DFM024	11.11	15.4	Chip	0.13	Quartz vein; 10% sulphides	50+05E, 52+10N
5DBO039	0.07	2.4	Chip	0.07	Altered wall rock	49+80E, 52+10N
5DBO040	<0.07	0.7	Chip	0.06	Quartz vein; barren	49+80E, 52+10N
5DBO041	4.73	7.2	Chip	0.02	Quartz vein; 10% sulphides	49+80E, 52+10N
5DBO042	0.17	1.7	Chip	0.03	Altered wall rock and fault gouge	49+80E, 52+10N
5DBO043	<0.07	1.0	Chip	0.30	Quartz diorite	49+80E, 52+10N
5DBO044	<0.07	1.0	Chip	0.30	Quartz diorite	49+80E, 52+10N

SAMPLE	ASSAY		SAMPLE		DESCRIPTION	GRID LOCATION
	g Au/t	g Ag/t	TYPE	WIDTH (m)		
<u>SAMPLES FROM THE MAIN VEIN NEAR THE LOWER ADIT</u>						
5DBP001	0.07	2.7	Grab		Quartz diorite	49+60E, 50+70N
5DBP002	11.55	9.6	Chip	0.10	Quartz vein; 5% sulphides	49+60E, 50+70N
5DBP003	0.07	1.4	Grab		Quartz diorite	49+60E, 50+70N
5DBP004	11.45	26.7	Chip	0.15	Quartz vein; 5% sulphides	49+65E, 50+70N
5DBP005	35.25	64.1	Chip	0.20	Quartz vein; 5% sulphides	49+68E, 50+65N
5DBP006	0.93	2.7	Grab		Altered wall rock and fault gouge	49+68E, 50+65N
5DFM014	1.58	2.7	Chip	0.13	Quartz vein; 5% sulphides	49+56E, 50+70N
5DFM015	9.53	7.9	Chip	0.13	Quartz vein; 5% sulphides	49+60E, 50+70N
5DFM016	10.53	5.8	Chip	0.14	Quartz vein; 2% sulphides	49+65E, 50+70N
<u>SAMPLES FROM OTHER LOCALES</u>						
5DFM001	0.07	1.0	Float		Andesite; 5% pyrite	49+40E, 52+35N
5DFM002	3.84	8.2	Float		Quartz diorite with 0.05 m wide mineralized quartz vein	49+40E, 52+35N
5DFM005	0.10	0.7	Float		Andesite and quartz	49+50E, 52+35N
5DFM017	0.10	0.7	Grab		Quartz diorite	49+90E, 52+80N
5DFM018	0.70	2.1	Float		Andesite with quartz veinlets	53+50E, 48+20N
5DFM025	0.07	2.4	Chip	0.10	Quartz vein; barren	50+20E, 52+10N
5DFM026	0.07	1.4	Grab		Quartz diorite; trace pyrite	53+15E, 52+35N
5DFM027	<0.07	0.7	Grab		Quartz vein; 10% sulphides	45+35E, 52+00N
5DFM028	<0.07	1.0	Float		Andesite with trace pyrite	46+00E, 50+00N
5DBP007	0.07	<0.7	Grab		Quartz vein; barren	50+80E, 52+30N
5DBP008	0.07	<0.7	Grab		Shear; 0.15 m wide	51+75E, 52+40N

TABLE IVESTIMATED COSTS FOR RECOMMENDED EXPLORATION PROGRAM

Helicopter		
45 hours @ \$550/hour		\$24,750
Analyses		
200 samples @ \$10/sample		2,000
Camp		
Equipment, supplies, fuel, expediting		5,000
Communications		
Telephone, radio, postage		500
Food		
2 men for 10 days @ \$15/day		1,200
3 men for 20 days @ \$15/day		
Insurance, licences		250
Reporting		
Drafting, xeroxing, printing, binding		2,000
Salaries		22,000
Geologist - 1 month in field, 1.5 months in office		
Assistant - 1 month in field		
Prospector - 0.65 month in field		
Transportation, accommodation, freight and travel		3,300
Supervision		
Consultant, accounting, secretarial		9,000
		<hr/>
	TOTAL	\$70,000

APPENDIX I

PERSONNEL

APPENDIX I

PERSONNEL

NAME AND ADDRESS	POSITION	DATES IN FIELD (1985)	DAYS
F. Benson P.O. Box 623 Princeton, British Columbia	Cook	September 29, 30; October 1-31; November 1-4	37
D. N. Berthelsen 5505 - 250 Street Aldergrove, British Columbia	Geologist	September 30; October 1-31; November 1-8	40
D. Fennings 2267 Gordon Avenue Vancouver, British Columbia	Prospector	October 7-31; November 1-4	29
N. Irwin 7027 - 183 Street Edmonton, Alberta	Geological Assistant	September 25-30; October 1-31; November 1-9	46
R. A. Olson 8727 - 181 Street Edmonton, Alberta	Consultant	September 26-30; October 1, 2, 28, 29, 30	10
J. Proudfoot #603, 10135 - 120 Street Edmonton, Alberta	Geological Assistant	September 25-30; October 1-31; November 1-8	45
S. Ridley 26 McKinnon Crescent Red Deer, Alberta	Geological Assistant	October 7-23	17