

GEOLOGICAL & GEOCHEMICAL REPORT

- on the -

GV, Eagle, Raven, Ptarmigan & Hawk Claims  
Atlin Mining District, British Columbia

- for -

John McFarland  
9360 Forest Court Southwest,  
Seattle, Washington 98136  
U.S.A.

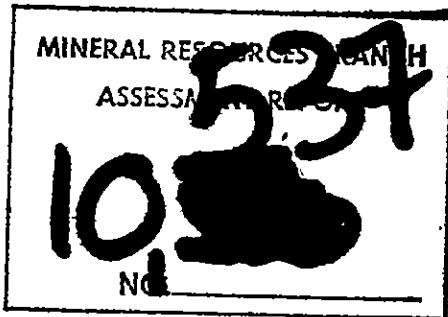
Location: 25 km Southeast of Atlin, B. C.  
 $133^{\circ}20'W$ ;  $59^{\circ}35'N$   
N.T.S. 104N/11W $\frac{1}{2}$

Prepared by;

KERR, DAWSON AND ASSOCIATES LTD.,  
#206 - 310 Nicola Street,  
Kamloops, B. C. V2C 2P5

John R. Kerr, P. Eng.

September 13, 1982



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## SUMMARY

The 31 GV and Bird claims were located to cover a portion of the headwaters of the Atlin placer gold mining camp, with expectations of tracing the placers to an economic bedrock source. Mr. John McFarland, owner of the claims, authorized the writer to complete a preliminary reconnaissance programme over the entire claim area, with the objective of selecting target areas for more detailed exploration.

Geochemical techniques and geological mapping in outcrop areas were employed along preselected traverse routes. All samples were analyzed for gold. Rock chip and silt samples were analyzed for arsenic, and silt samples were also analyzed for copper and silver.

The geological mapping provided a possible lithology of the Cache Creek Assemblage of rocks in the claim area. Knowledge of this lithology appears significant in determining that portion which apparently carries gold. The Cache Creek Assemblage consists of argillites, phyllites, quartzites, chert, andesite and limestone. The most favourable host for potential gold deposits appear to be quartz and/or magnetite veins and lenses, or syngenetic low-grade gold deposits in argillites or phyllites. Indications of epithermal alteration of limestone and limestone breccia are present in the area, and if gold can be found in these carbonate rocks, they would also be considered a very favourable host for a low-grade deposit.

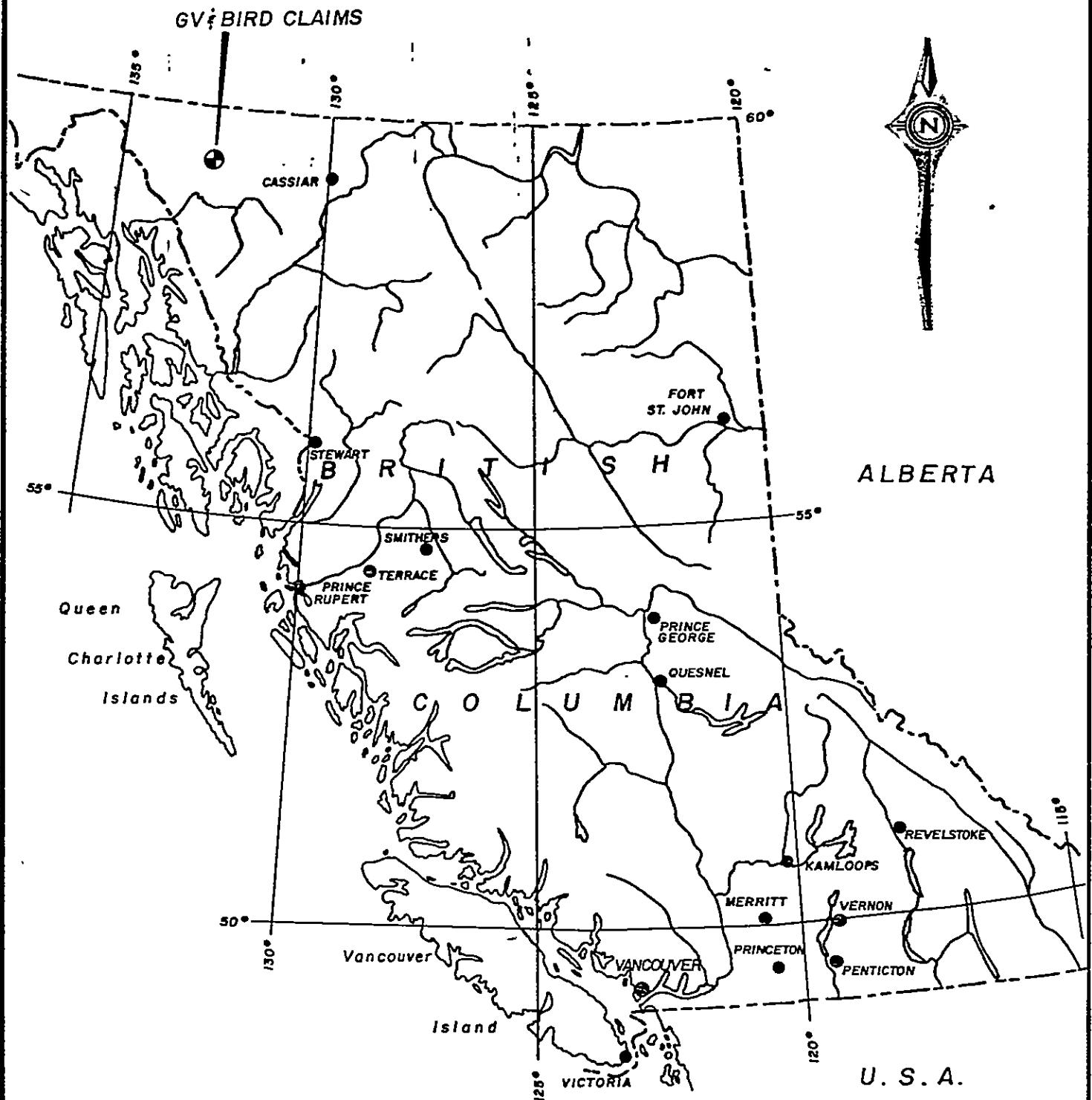
Interpretation of the geological and geochemical data has provided two significant targets worthy of further detailed evaluation. Exploration should include geological mapping, geochemistry and magnetics on grid systems. Other geochemical targets should be resampled to substantiate the initial results.

## INTRODUCTION

General Statement

The GV claims, the Eagle, Ptarmigan, Raven and Hawk claims (collectively referred to as the Bird claims) and the Butterfly and Margarita claims were acquired by John M. McFarland to study the source of the southern portion of the Atlin placer gold camp. Mr. McFarland authorized the writer to complete a preliminary examination of the area, with the objective of studying the gold potential of the entire claim block, thereby selecting specific areas for further exploration.

As the nature of the programme was in doubt at the beginning of the programme, field methods were not decided until a general reconnaissance of the claim area could be undertaken. Roads exist up most major creeks, and initial reconnaissance along these indicated that outcrop in the claim area is scarce, and is confined to the top of knolls and mountains. The creek valleys are generally filled with thick glacial, lake and fluvial unconsolidated sediments. It was therefore decided that reconnaissance geochemical techniques to study the geochemical nature of gold in rock, soil and creek silts should accompany geological mapping. As geochemical sampling in areas of thick overburden would be meaningless, and as future exploration in areas of thick overburden would be expensive and very speculative, all traverses were confined to areas of known outcrop and minimal overburden. The field programme commenced July 8, 1982 and was completed on July 17, 1982. Four days of mobilization and demobilization were required from Kamloops, B. C. This report summarizes the geological and geochemical data.



For: JOHN M. Mc FARLAND

**LOCATION MAP  
GOLD VALLEY BASIN  
GV AND BIRD CLAIMS  
ATLIN MINING DIVISION, B. C.**

Technical Work by:  
Kerr, Dawson & Assoc. Ltd.

Date : AUG., 1982.

Scale : 1cm. = 87 km.

Dwg No. 275-1

### Location and Access

The claims cover a large area ( $\sim 100 \text{ km}^2$ ) 20 - 28 km southeast of Atlin, B. C. This area is bounded by geographic co-ordinates  $59^{\circ}30'N$  to the south;  $59^{\circ}37'N$  to the north;  $133^{\circ}15'W$  to the east; and  $133^{\circ}30'W$  to the west. (NTS 104N/11W).

Access is possible from Atlin along two well maintained gravel roads along Pine Creek to the northeasern portion of the claims, and along Spruce Creek through the central and southern portion of the claims. 4 X 4 jeep trails exist up Wright, Otter, Snake, Dominion, Rose and one unnamed creek which provide reasonable access to most portions of the claims.

### Topography and Vegetation

The Atlin area is located in the eastern flank of the Coast Mountain Range. Rugged, steep mountains do exist to the west, north and east of Atlin, however in the GV and Bird claims area, the mountains and knolls are well rounded, providing gentle to moderate terraine. Relief ranges from 1100m (a.s.l.) in the creek valleys to 1880m (a.s.l.) on Idaho Pk in the northeast corner of the claims.

The tree line exists at approximately the 1300m (a.s.l.) elevation. Below this are stands of spruce, balsam and pine. Groves of dense thick tag alder exist at the tree line, and in selected areas below the tree line. The valley bottoms are generally flat and contain numerous swamps. Above tree line alpine grasses and flowers exist.

The glacial history of the Atlin area is an important aspect of studying the nature and origin of the gold placer deposits, and tracing the placer gold to a bedrock source. An unknown number of glacial fronts invaded the Atlin area, all originating from the southwest, probably advances of the now-existing Llewellyn Icefield. These advances were mainly valley glaciers moving in a general north and east direction along existing valleys.

It is felt that although glaciation was widespread over the GV and Bird claims area, it was not thick, and occurred over a very short duration. Kames, eskers and glacial till are found in creek valleys and glacial erratics are occasionally found in the highlands. Fluvial and lake sediments of obvious glacial origin are located in some creek valleys. Glaciation did not cause scouring or deep erosion of bedrock or of many Tertiary creek channels. This suggests that the glaciers were of minimal weight and did not exist over an extensive period of time. There is very little evidence of change of topography or drainages that may have occurred during glaciation.

It is my opinion that the placer gold deposits, as they exist today, are the result of downstream chemical and mechanical dispersion of gold. Placer gold is known to occur in both Tertiary and in post glacial deposits. It can therefore be concluded that the source of gold occurs upstream from the known placers and has been eroding and accumulating over a long period of time.

#### Claims

The property consists of 31 contiguous mineral claims, 28 located under the Modified Grid System, 2 located by the two-post system and 1 acquired as a reverted crown grant. All claims are in the Atlin Mining Division and are recorded in the name of John M. McFarland.

A list of the claims are as follows:

<u>Claim Name</u>	<u>No. Units</u>	<u>Record No.</u>	<u>Expiry Date</u>
GV-1	20	1423	August 21, 1982
GV-2	20	1424	"
GV-3	20	1425	"
GV-4	20	1426	"
GV-5	20	1440	"
GV-6	20	1441	"
GV-7	20	1442	"
GV-8	20	1443	"
GV-10	20	1444	"
GV-13	20	1445	"
GV-14	20	1446	"
GV-15	20	1447	"
GV-16	20	1428	"
GV-17	20	1429	"
GV-18	20	1430	"
GV-19	20	1431	"
GV-20	20	1432	"
GV-21	20	1433	"
GV-22	20	1434	"
GV-23	20	1435	"
GV-24	20	1436	"
GV-26	20	1437	"
GV-27	18	1438	"
GV-28	18	1439	"
Hawk	20	1421	"
Raven	20	1420	"
Eagle	20	1427	"
Ptarmigan	20	1422	"
Butterfly (2-post)	1	1343	July 13, 1982
Margarita (2-post)	1	1344	"
Rev. C.G. #335	1	1607	March 12, 1983

\* Work on some claims have been recorded prior to assessment anniversary, therefore expiration date will be changed on approval of this report.

History

The Atlin placers were initially discovered in 1898 on Pine Creek. A rush diverted many of the Klondyke headed prospectors, leading to discovery of placers on Spruce, Ruby, Birch, Otter, Wright, Snake, Dominion, McKee and 4th of July Creeks. Placer mines have been operating fairly continuously from discovery to the present, the boom periods however have been coincident with surges in the price of gold (ie. 1930-1938 and 1978 - present).

Lode mining and exploration has been very minimal in the area prior to 1965, the only significant deposit being the Atlin - Ruffner deposit on 4th of July Creek. The intrigue of tracing the source of the placer gold to bedrock source has been in the mind of many since the discovery of placers. This has resulted in the detailed prospecting of obvious outcrop areas and the discovery of gold in veins and major structures of ultrabasic rock. No significant production has been recorded from any deposit.

Several tungsten skarn deposits were discovered as the result of prospecting. These are currently being developed by Yukon Revenue Resources Ltd. at the head of Boulder and Birch Creeks. During the mid - late 1960's, the Adanac porphyry MoS<sub>2</sub> deposit was discovered jointly by Canadian Johns Manville Co. Ltd. and Adanac Mines Ltd. This led to an exploration rush in the Surprise Lake Batholith for other such deposits during the early 1970's. Following the government geochemical release, a rush for uranium occurred in the Surprise Lake batholith during 1978 and 1979. No significant uranium deposits were discovered during this period.

A mill was constructed on the Atlin - Ruffner deposit in 1975 and several operators have intermittently produced ore from 1976 - present.

The GV and Bird claims cover an area draining into several significant placer deposits on McKee Ck, Upper Spruce Creek (the Nolan Mine), Wright Creek, Otter Creek and Snake Creek. Exploration in this area has been limited to only prospecting of outcrop areas.

Lack of ultrabasic rock in this area would suggest that the bedrock source is not the veins and faults in ultrabasic rock, such as found elsewhere in the Atlin area. Until the recent work of John McFarland, there does not appear to have been a concerted effort to locate the source of gold in this area.

#### FIELD PROGRAMME

A two-man crew, consisting of the writer and Michael Dawson, assistant, mobilized from Kamloops on July 6, 1982, commencing the field programme on July 8, 1982. The initial day was spent traversing roads and examining general rocks of the area to establish field methods to be applied for the remainder of the programme. Due to a general lack of outcrop, it was decided to apply soil, rock and silt geochemical techniques to derive the background content of gold in soil and rock and to determine if broad scale anomalous zones do exist in the area.

Daily traverses were laid out, and followed by chain or topofil and compass methods. Sample stations were marked at 100 meter intervals along each traverse. In areas of rock outcrop, rock chip samples were collected. If quartz veins were encountered, selected samples of vein material were collected. In areas of no outcrop, soil samples were collected on a routine basis at the sample stations. Swamps or areas of deep overburden were avoided. Silts from all creeks and seeps encountered were collected. A total of 286 soil samples, 45 silt samples and 110 rock chip samples were collected from within the claim area.

All samples were shipped to Min-En Laboratories Ltd. in North Vancouver for routine gold analysis. In addition the rock chip samples were analyzed for arsenic and the silt samples were analyzed for arsenic, silver and copper. Some detailed soil samples near the confluence of Wright and Eagle Creeks were analyzed for copper.

Concurrently with laying out traverses and sampling, geological mapping was completed over the claim area. All outcrop areas were tied into sample stations. The geological plan, (Figure 275-2) and geochemical plans (Figures 275-3 & 4), are appended to this report. Results and interpretation are discussed in later chapters.

## GEOLOGY

### Regional Geology

The geology of the Atlin area is summarized in G.S.C. Memoir 307, Geology of the Atlin Map Area, by J. D. Aitken and accompanying 1:250,000 scale geological plan.

In summary the area is dominantly underlain by a complex assemblage of Permian volcanic and sedimentary rocks (Cache Creek Assemblage). The Cache Creek Assemblage has been subdivided into three major rock formations:

- I. Detrital sediments consisting of argillite, phyllite, quartzite, minor chert and conglomerate.
- II. Limestone, limestone breccia and marble.
- III. Rocks of volcanic origin, mainly andesite flows and tuffs.

Immediately after deposition, the Cache Creek Assemblage was intruded by irregular bodies of alpine ultrabasic rock. These plutons generally occur along major structural breaks within the area.

During the middle to late Mesozoic period, granodiorite and quartz monzonite batholiths intruded rocks of the Cache Creek Assemblage. The two significant batholiths are the Jurassic granodiorite Fourth of July Batholith (Mt. Carter Batholith) to the north of Atlin, and the Cretaceous quartz-monzonite Surprise Lake Batholith to the east of Atlin.

Two late Tertiary events occur within the Atlin area. Two small stocks of near surface quartz-monzonite exist on the west side of Atlin Lake.

Olivine basalt and scoria were vented by Late Tertiary or Recent volcanic cones near the headwaters of Ruby and Volcanic Creeks.

With the exception of a small portion of the Surprise Lake batholith in the northeast corner of the claims, quartz veins and occasional aplite dykes, all rocks examined on the GV and Bird claims belonged to the Cache Creek Assemblage.

#### Rock Descriptions

All three formations of the Cache Creek Assemblage were located on the claims and are described in detail below:

I. A wide variety of detrital sediments were identified and are described as follows:

Argillite: - generally a fine-grained, black to gray, massive to platy rock. Noted variations include content of silica and carbonate. The more massive, competent argillite contains a high content of silica, while the softer, more platy variety contains a high content of carbonates. The thermal effects of the Surprise Lake batholith are noted within  $\frac{1}{2}$  km of the contact. Hornfels and spotted hornfels textures (cordierite, andalusite and staurolite) are occasionally megascopically recognized. Regional metamorphism has altered the argillite to a phyllite, described below. Bedding features of the argillite can be identified and are believed to be conformable with the platy fracturing. Pyrite is generally abundant as disseminations and along fractures.

Phyllite: - Well foliated, platy, black to dark gray regionally metamorphosed argillite. The foliation planes are the main distinguishing feature of the phyllite, and as with the argillite silica and carbonate content is quite variable. Pyrite is quite abundant in phyllite, however tends to have remobilized along foliation planes and in quartz sweats.

Quartzite: - Fine - medium grained, grey/buff/brown impure quartzite, generally well bedded, becoming quite platy along bedding planes. Lenticular beds of very fine grained quartzite, described as a chert are quite common. Pyrite is present as disseminations in the quartzite, however is not as abundant as in the argillites and phyllites. Although quartzite is commonly interbedded with the argillite, two distinct beds of quartzite have been interpreted on the property. The largest unit traverses the central portion of the claims block in a general N - S direction. A smaller unit exists on the Eagle claim, striking in a NE direction.

- II. Limestone (Marble): - Fine - coarse grained, white/buff/grey, occasionally laminated, generally massive, dense, well crystallized limestone. In the northeast corner of the claims, at the contact of the Surprise Lake batholith, the limestone has been totally recrystallized to a marble. At two locations, to the south of Wright Creek and on Gold Hill, limestone breccia was mapped. At Gold Hill, near the limestone/andesite contact, secondary silicification (jasperoid) of the limestone breccia was recognized. On the ridge to the west of Otter Creek, the limestone is well bedded, with impure silty and sandy horizons.
- III. Andesite: Light to dark green, generally fine-grained, massive and dense andesite flows and tuffs. The volcanic units appear conformable with the sedimentary rocks, and are generally less than 500 meters thick. A large outcrop of well-foliated (schistose) andesite exists on the southern flanks of Margarita Peak. The rock in general has been quite highly altered and bleached to a very pale green colour. The strike and dip of the foliation, alteration and shearing is caused by the proximity to the Surprise Lake batholith and possibly by a fault zone interpreted just to the west of this outcrop.

In the area of Gold Hill, the andesite contains an abundant content of fresh pyrite cubes and lenses. Alteration of the andesite in this area varies from a fresh, massive andesite to a highly chloritized, fractured and foliated andesite.

Although serpentine or ultrabasic rocks were not located in place on the claim block, two boulders of serpentized peridotite were located on the ridge to the west of Otter Creek. These are believed to be glacial erratics. The G.S.C. map indicates a small ultrabasic stock on the western flank of Idaho Peak, probably occurring on the northern portion of GV-27. This was not examined by the writer.

The Surprise Lake batholith was not examined in detail. The contact area was mapped and prospected in the vicinity of sample station GV-229. The rock is a medium - coarse grained, mafic-poor white/buff quartz - monzonite. The contact is very well defined and regular, indicating a very passive emplacement. Minor skarn mineralization (garnets) was noted within the contact zone of calcareous argillite.

Quartz veins are common in all various rock types of the Cache Creek Assemblage. All veins located in outcrop were less than 1 meter thick. Abundance of quartz veining is apparent on the Eagle and Ptarmigan claims. On Margarita Peak at least five quartz veins ranging in thickness 0.5 - 1.0 meters were located, with innumerable small veins and swarms extending to the west in the Wright Creek valley.

Only one felsic or aplite dyke was mapped in outcrop on the east valley wall of Otter Creek. On the ridge on the west side of Otter Creek much float of aplitic dyke material was found and the talus slopes on the north slope of Gold Hill indicated a substantial amount of dyke rocks.

#### Lithology

Lack of outcrop in the claim area makes it very difficult to interpret the lithology of the Cache Creek Assemblage. The best exposed section of a portion of the Cache Creek rocks is the major anticline on Gold Hill. This clearly indicates a basement of very siliceous argillite and phyllite overlain by a 250 - 300 meter thick limestone bed overlain by 300 - 400 meters of volcanic rock and then overlain by an unknown thickness of calcareous argillite.

In the area of Cone Peak and another possible section an anticline indicates a limestone basement overlain by 50 meters of argillite, overlain by 100 - 150 meters of andesite and then overlain by a thick pile of interbedded calcareous argillite and quartzite. If the succession remains structurally uninterrupted to the southwest to Otter Creek, a large thickness of dominantly quartzite may be one of the last depositional events of the Cache Creek Assemblage. It also is apparent that irregular volcanic horizons are present in the upper argillite unit.

If there is a correlation of the limestone bed on Gold Hill and the marble near Cone Peak, explained by a significant vertical displacement along the Spruce Lake Fault, a logical lithology of the Cache Creek Assemblage in the GV claim area is as follows (from top to bottom):

<u>ROCK UNIT</u>	<u>THICKNESS</u>
- Argillite	Unknown
- Impure quartzite with bands of argillite	>1000m
- Interbedded calcareous argillite, chert, quartzite, with irregular beds of volcanic flows and tuffs and impure limestone.	>2500m
- Andesite	200 - 400m
- Siliceous argillite	0 - 50m
- Limestone	250 - 300m
- Siliceous argillite	Unknown

Structure:

Lack of rock exposure makes it very difficult to locate definitely and interpret major structural features.

The significant structures, related to Aitken's geological plan, within the claim area is the anticline on Gold Hill. It is the writer's opinion that this anticline continues to the northeast, the axis being re-defined within the marble unit on the southeast flank of Cone Peak.

Interpretation of bedding attitudes to the west suggests that this anticline is continuous from Gold Hill to Cone Peak. In the central portion of the claim block, the interpreted quartzite unit indicates the anticlinal folding, however not as pronounced as on Gold Hill and Cone Peak. As the quartzite is an upper member of the Cache Creek Assemblage, this would suggest that folding of this anticline was most intense at depth. The anticline plunges to the southwest at an interpreted angle of <10°.

Although a fault has not been identified along Spruce Creek, several indications, listed below, suggest the presence of a major fault:

- 1). Abrupt termination of the lithology of the Gold Hill anticline.
- 2). Extreme fracturing, shearing and alteration of rock in the Spruce Creek valley.
- 3). Irregular and disturbed bedding attitudes.
- 4). The topographic details indicate a major lineament from Atlin to the Gladys River fault system.

If the lithology and anticline interpretation of the Cache Creek Assemblage is true, displacement along this fault is mainly vertical (down dropped to the east), possibly in excess of 1000 meters.

Another fault has been interpreted on the south flank of Margarita Peak. Interpretation of this fault is by no means conclusive and is based on inability to align geological units; shearing, foliation and alteration of the nearby volcanics; and erratic variations in bedding measurements in the area.

## GEOCHEMISTRY

Statistical analysis of the gold values in soil, rock and stream sediments indicates background content to approximate 5 ppb, the detection limit of gold. Anomalous values are obvious, therefore the geochemical categories have been arbitrarily selected as follows:

5 - 10 ppb Au	-	Negative
15 - 50 ppb Au	-	Probably Anomalous
> 50 ppb Au	-	Definitely Anomalous

Anomalous samples are displayed on the accompanying map (Figure 275-3). Considering the erratic nature of gold in the geochemical environment, and the very reconnaissance nature of the geochemical traverses, six areas of anomalous values in soil and rock have been interpreted.

- I. In the Gold Hill area, four of eight soil samples within the interpreted anomaly ranged 30 - 80 ppb Au.
- II. A soil sample collected along the road near the confluence of Wright and Eagle Creeks indicated 840 ppb Au.
- III. In a large area ( $2 \times 1\frac{1}{2}$  km) at the headwaters of Wright Creek, seven of eleven rock chip samples collected are probably anomalous, ranging 20 - 50 ppb Au.
- IV. Two small anomalies indicated in both rock and soil exist in the southern portion of the Hawk and Raven claims, values ranging 15 - 55 ppb Au.
- V. Four Soil samples on the ridge to the west of Otter Creek indicated weakly anomalous values, ranging 15 - 25 ppb Au.
- VI. One isolated soil sample on the knoll to the north of Rose Creek indicated 100 ppb Au.

Because of the geochemical problems of gold in soil and stream sediments, rock chip and silt samples were analyzed for arsenic and silt samples were analyzed for copper and silver in an attempt to establish an indicator metal that could be used to trace gold. There is no apparent correlation of copper, arsenic, or silver to gold. An interpretation of these results was not completed, however the values are shown on accompanying map sheet (Figure 275-4).

Some detailed soil samples collected at the confluence of Wright and Eagle Creek were analyzed for copper to follow up some unusual copper values found by J. McFarland. Values were quite low, and of no economic significance. These results are not plotted, however are appended in the laboratory reports.

#### ECONOMIC POTENTIAL

There are eight geological models that exist in the Atlin area, that may be the source of the placer gold deposits.

- 1). Gold in quartz/carbonate veins, shears and faults within ultrabasic rock. Known gold occurrences do exist in ultrabasic rocks to the north of the GV and Bird Claims. However, ultrabasic rocks were not mapped on the property and are felt to be a very unlikely source of gold in this area.
- 2). Gold in quartz veins of all host rocks. Gold-quartz nuggets are found in placer deposits, therefore the source of some gold must be from quartz veins. All obvious quartz veins located in the field were sampled, results indicating only trace to 40 ppb Au content.
- 3). Gold associated with magnetite veins or lenses. There is an association of placer gold with an abundant content of magnetite at the headwaters of Wright Creek. Magnetic anomalies are known to exist in this area, the cause at this time is unknown. These may be due to a polymetallic vein system, known to occur within the Surprise Lake batholith, or to primary iron rich beds in the Cache Creek sediments.
- 4). Gold associated with carbonate rocks. The very large epithermal gold deposits in Nevada are all hosted in a limestone environment. In the Gold Hill area and on the ridge to the west of Otter Creek, impure limestone breccia was mapped.

## 4). (Continued)

On Gold Hill, some jasperoid alteration is associated with the limestone breccia. Although gold has not been identified in limestone, the geological environment does exist for a carbonate hosted deposit.

## 5). Replacement gold in altered andesite. Alteration of andesite,

accompanied by pyrite, is most intense on Gold Hill. The geological environment is present, however is considered by the writer, to be an unlikely source of gold.

## 6). Syngenetic gold occurring in preferred argillite or phyllite

horizons. At the headwaters of Wright Creek, the geochemical survey indicated an anomalous concentration of gold in the sediments. Further detailed exploration in this area may lead to a specific horizon in the sediments that may carry ore-grade concentration. Source of the gold would be contemporaneous volcanic activity during accumulation of the Cache Creek Assemblage.

## 7). Low grade (sub-economic) syngenetic gold in all sedimentary

rocks. Routine sampling of all rock outcrop in the area indicates that the gold is not distributed on a widespread basis, and is concentrated in specific geological environments.

## 8). The source of gold has been eroded. This possibility is

extremely remote for geological and topographic reasons.

The geochemical survey indicated that gold appears to be in the lower portion of the Cache Creek lithology and possibly related to that portion of the lithology near the volcanic/limestone contact zone. There is also a weak association of gold to the upper quartzite unit.

Further exploration on the claims should be concentrated in that lower section of the Cache Creek Assemblage, where exposed (ie. the headwater of Wright Creek, and at Gold Hill). Gold associated with magnetite veins or lenses, quartz veins and syngenetic gold in sediments are favoured as potential hosts for economic gold deposits.

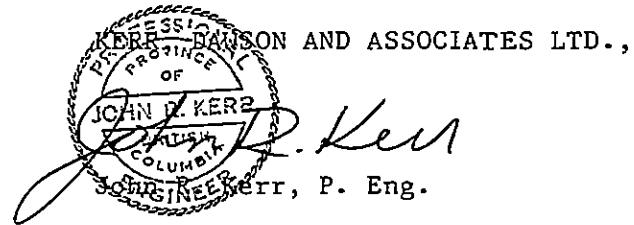
#### RECOMMENDATIONS

Further detailed surface exploration is recommended in the anomalous areas at the head of Wright Creek and Gold Hill, as follows:

- 1). Grids be established over both areas.
- 2). Geological mapping of grid areas.
- 3). Soil sampling and magnetic surveys over grid areas.
- 4). Bulldozer or back-hoe trenching on known magnetic anomalies and anomalies delineated from above surveys.

In addition to the above, some of the anomalies located in other areas of the claims should be resampled in hopes of duplicating or enlarging on the initial results.

Respectfully Submitted By:



Kamloops, B. C.  
September 13, 1982

APPENDIX A

COST STATEMENT

COST STATEMENT

Invoice # 1009 (copy attached) \$12,886.40

Invoice # 1022 (copy attached) 1,917.83

Report Preparation: 1,000.00

TOTAL COSTS \$15,804.23

Mr. John McFarland,  
9360 Forest Court Southwest,  
Seattle, Washington 98136  
U.S.A.

275

July 29, 1982

Re: Exploration & Evaluation,  
GV & Bird Claims, Atlin Mining Division

LABOUR:

Mobilization:

John R. Kerr, P. Eng.  
- 4 days @ \$200.00/day                   \$800.00

M. E. Dawson,  
- 5 ½ days @ \$120.00/day                 660.00

Field Work & Compilation:

John R. Kerr, P. Eng.  
- 13 days @ \$300.00/day                 3,900.00

M. E. Dawson,  
- 10 days @ \$170.00/day                 1,700.00

\$7,060.00

EXPENSES:

Geochemical Analysis;                     \$3,000.00  
(partial billing, balance to be billed on  
receipt of results)

Continued

July 29, 1982

EXPENSES: (Continued)

## Truck Rental

Mobilization,  
 -2940 miles @ 0.25/mi. \$735.00

Field Work,  
 -10 days @ \$40.00/day 400.00  
 -560 miles @ 0.40/mi. 224.00

1,359.00

Room & Board 854.64

## Equipment Rental

10 days @ \$25.00/day 250.00

Supplies, Freight, Telephone 362.76

\$5,626.40

TOTAL EXPENSE

\$12,386.40

Less Advance received

(5,000.00)

OUTSTANDING

\$7,386.40

P.M. 10/11/82

Total

7,386.40

KERR ENGINEERING SERVICES LTD.  
1200 17th Street SW  
Kamloops, B.C. V2G 2P3

1022

John McFarland,  
9360 Forest Court Southwest,  
Seattle, Washington, 98136  
U.S.A.

275

September 7, 1982

Re: Compilation of Data - GV Claims, Atlin Mining Dist.  
August, 1982

John R. Kerr, P. Eng.  
4 days @ \$300.00/day

\$1,200.00

EXPENSES:

Geochemical Analysis; \$3,602.50  
(Less billed July/82) 3,000.00

\$602.50

Telephone; 38.20

Printing; 48.53

Xerox, maps & secretarial 28.60

717.83

TOTAL HEREIN

\$1,917.83

APPENDIX B

GEOCHEMICAL DATA

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over samples

## GEOCHEMICAL ANALYSIS DATA SHEET

MIN - EN Laboratories Ltd.

705 WEST 15th ST., NORTH VANCOUVER, BC V7M 1T2

PHONE (604) 980-5814

F No. 2-385

DATE: July 30

PROJECT No.

ATTENTION:

J. Kerr

1982

Sample Number	6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb				
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
GV.01R											<1			5.0		
0.2											<1			1.0		
0.3											<1			2.0		
0.4											<1			1.0		
0.5											<1			5		
0.8											<1			2.0		
1.1											<1			1.0		
1.2											3			5		
1.3											<1			5		
1.4											<1			10		
1.5											<1			5		
5.4R											<1			5		
7.2											2			2.5		
7.3											<1			5		
7.7											5			10		
7.8											2			5		
7.9											1			5		
8.0											7			5		
8.1											<1			10		
8.3											<1			5		
8.4											1			5		
8.6											24			5		
8.8											10			5		
8.9											13			40		
9.0											<1			10		
9.2											<1			10		
9.3											2			5		
9.4											1			5		
9.5											3			5		
GV.9.6											<1			5		

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Kerr Dawson

## Rock Samples.

## GEOCHEMICAL ANALYSIS DATA SHEET

PROJECT No:

F lo. 2-385

MIN - EN Laboratories Ltd.

DATE: July 30

705 WEST 15th ST, NORTH VANCOUVER, BC V7M 1T2  
PHONE (604) 980-5814

1982.

ATTENTION: J. Kerr

Sample Number	6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb				
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
GV. 9.7											1			5		
9.8											<1		5			
9.9											1		5			
1.0.5											10		10			
1.0.6											<1		5			
1.1.5											<1		5			
1.1.6											1		10			
1.1.8											<1		5			
1.2.2											21		5			
1.2.3											14		5			
1.2.4											1		5			
1.2.7											1		10			
1.4.2											4		5			
1.4.8											5		5			
1.5.0											2		5			
1.5.1											1		55			
1.5.4											5		10			
1.6.4											1		5			
1.7.5											<1		5			
1.7.6											<1		5			
1.8.1											1		5			
1.8.8											2		5			
1.9.0											1		10			
2.0.8											5		5			
2.1.6											<1		10			
2.1.8											8		15			
2.2.1R											2		5			
2.2.2											4		25			
2.2.8											<1		5			
GV. 22.9											<1		10			

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PROJECT No.

ATTENTION: J. Kerr

## GEOCHEMICAL ANALYSIS DATA SHEET

MIN-EN Laboratories Ltd.

705 WEST 15th ST., NORTH VANCOUVER, BC V7M 1T2  
PHONE (604) 980-5814F. No. 2-385DATE: July 30  
1982.

Sample Number	6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	% ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb				
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
GV 234											1			5		
243											4			10		
244											1			3.5		
246											1			5		
247											4			1.5		
249											1			5		
250											3			5		
252											15			5		
253											15			10		
254R											4			5		
255											12			2.0		
256											2			5		
258											1			5		
264											4			5		
270											10			5		
271											4			5		
272											7			5		
273											14			10		
277											1			5		
278											1			5		
279											7			10		
280											1			5		
281											2			10		
282											2			2.0		
283											2			5		
285											1			5		
287											6			10		
288											5			5		
290											5			5		
GV 291											71			5		

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PROJECT No.

## GEOCHEMICAL ANALYSIS DATA SHEET

F. No. 2-385

ATTENTION: J. Kerr

MIN-EN Laboratories Ltd.

DATE: July 30

705 WEST 15th ST., NORTH VANCOUVER, BC V7M 1T2  
PHONE (604) 980-5814

1982.

Sample Number	6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb				
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
GV 2.9.3											5					
2.9.4											8		10			
2.9.6								•			7		5			
2.9.7							•				8		5			
2.9.9							•				8		5			
3.0.0							•				4		5			
3.0.4							•				8		5			
3.1.4		160					•				10		5			
3.2.5		126					•				<1		10			
3.2.8		21					•				3		5			
3.2.9		17					•				2		10			
3.3.2		64					•				1		5			
3.4.3		5.8					•				3		10			
3.4.4		3.9					•				1.1		2.5			
3.4.6							•				1.1		5			
3.4.9							•				7		10			
3.5.1							•				1		5			
3.5.2							•				3		5			
3.5.3							•				1		5			
3.6.3							•				4		10			
3.6.5							•				10		5			
3.6.6							•				9		10			
3.6.7							•				7		5			
3.7.3							•				3.6		5			
3.7.5							•				<1		5			
3.7.8							•				4		5			
3.8.0							•				3		5			
3.9.3							•				5		10			
4.4.3							•				<1		5			
GV 4.4.4							•				<1		5			

**Kerr Dawson**

**PROJECT No** \_\_\_\_\_

## GEOCHEMICAL ANALYSIS DATA SHEET

MIN - EN Laboratories Ltd

705 WEST 15TH ST., NORTH VANCOUVER, BC V7M 1T2  
PHONE (604) 980-5814

F 40. 2-385

DATE: July 30

ATTENTION: J. Kerr

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ATTENTION: J. Kerr

## GEOCHEMICAL ANALYSIS DATA SHEET

MIN-EN Laboratories Ltd.

705 WEST 15TH ST., NORTH VANCOUVER, BC V7M 1T2

PHONE (604) 980-5814

F. No. 2-385

DATE: July 30

1982.

Sample Number	6 81	10 86	15 90	20 95	25 100	30 105	35 110	40 115	45 120	50 125	55 130	60 135	65 140	70 145	75 150	80 155	
GV 0.6			80					0.8			5		5				
0.7			8.8					0.7			1.1		5				
0.9			7.3					0.9			5		5				
1.0			3.9					0.7			1		5				
1.6								•					5				
1.7								•						5			
1.8								•						5			
1.9								•						10			
2.0								•						5			
2.1								•						10			
2.2								•						5			
2.3								•						10			
2.4								•						5			
2.5			5.6					0.4			1		5				
2.6			3.0					1.0			5		5				
2.7								•						10			
2.8			2.1					0.8			13		5				
2.9			3.9					0.9			3		10				
3.0								•						10			
3.1								•						5			
3.2								9						10			
3.3								•						5			
3.4								•						5			
3.5								•						5			
3.6								•						5			
3.7								9						5			
3.8								9						5			
3.9								9						5			
4.0								•						5			
GV 4.1								9						5			

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## GEOCHEMICAL ANALYSIS DATA SHEET

PROJECT No \_\_\_\_\_

MIN - EN Laboratories Ltd.

F 40 2-385

705 WEST 15th ST., NORTH VANCOUVER, BC V7M 1T2  
PHONE (604) 980-5814

DATE: July 30

ATTENTION: J. Kerr

1982.

Sample Number	6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fo ppm	Hg ppb	As ppm	Mn ppm	Au ppb				
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
GV 42														5		
43		19						0.8			61		5			
44								*					10			
45								*					5			
46								*					10			
47								*					5			
48								*					5			
49								*					5			
50								*					10			
51								*					5			
52								*					5			
53								*					5			
55								*					10			
56								*					5			
57								*					10			
58								*					5			
59								*					5			
60								*					5			
61								*					5			
62								*					5			
63								*					5			
64								*					5			
65								*					5			
66								*					5			
67								*					5			
68								*					10			
69								*					10			
70								*					5			
71								*					5			
GV 74								*					5			

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## GEOCHEMICAL ANALYSIS DATA SHEET

F No. 2-385

MIN - EN Laboratories Ltd.

705 WEST 15th ST., NORTII VANCOUVER, BC V7M 1T2

PHONE (604) 980-5814

DATE: July 30

1982.

Sample Number	6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb				
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
GV	7.5															
	7.6															
	8.2															
	8.5															
	8.7															
	9.1															
	1.00	7.6						1.9								
	1.01	7.1						0.8								
	1.02	3.5						0.7								
	1.03															
	1.04															
	1.07															
	1.08															
	1.09															
	1.10															
	1.11															
	1.12															
	1.13	3.7						0.7								
	1.14															
	1.17															
	1.19															
	1.20															
	1.21															
	1.25															
	1.26															
	1.28								9							
	1.29								9							
	1.30								9							
	1.31								9							
GV	1.32								9							

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## GEOCHEMICAL ANALYSIS DATA SHEET

PROJECT No.: \_\_\_\_\_

F lo. 2-385

MIN - EN Laboratories Ltd.

705 WEST 15th ST., NORTH VANCOUVER, BC V7M 1T2  
PHONE (604) 980-5814

DATE: July 30

ATTENTION: J. Kerr

1982.

Sample Number	6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb				
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
GV 1.3.3																
1.3.4																
1.3.5																
1.3.6																
1.3.7																
1.3.8																
1.3.9																
1.4.0																
1.4.1																
1.4.3																
1.4.4																
1.4.5																
1.4.6																
1.4.7																
1.4.9																
1.5.2																
1.5.3																
1.5.5		12.7					0.5			1.1						
1.5.6								•								
1.5.7								•								
1.5.8								•								
1.5.9								•								
1.6.0								•								
1.6.1								•								
1.6.2								•								
1.6.3								•								
1.6.5		4.3					0.7			5						
1.6.6								•								
1.6.7		2.7					0.8			6						
GV 1.6.8							•							10		

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## GEOCHEMICAL ANALYSIS DATA SHEET

PROJECT No.

MIN - EN Laboratories Ltd.

F lo. 2-385

ATTENTION:

J. Kerr

705 WEST 15TH ST., NORTH VANCOUVER, BC V7M 1T2

PHONE (604) 980-5814

DATE: July 30

1982.

Sample Number	6 81	10 86	15 90	Pb ppm	Zn ppm	25 100	30 105	Co ppm	35 110	Ag ppm	40 120	Fe ppm	45 125	Hg ppb	50 130	As ppm	55 135	Mn ppm	60 140	Au ppb	65 145	70 150	75 155	80 160
GV 16.9																								
17.0																								
17.1																								
17.2																								
17.3																								
17.4																								
17.7																								
17.8			6.9								1.2													
17.9																								
18.0			3.7								0.6													
18.2																								
18.3																								
18.4			3.9								0.6													
18.5			4.8								0.6													
18.6			7.0								0.5													
18.7			4.8								0.4													
18.9																								
19.1																								
19.2																								
19.3																								
19.4																								
19.5																								
19.6																								
19.7			4.5								0.8													
19.8																								
19.9			4.6								0.6													
2.0.0																								
2.0.1																								
2.0.2																								
GV 2.0.3																								

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COMPANY: Kerr DawsonFILE NO. 2-385

PROJECT No.: \_\_\_\_\_

## GEOCHEMICAL ANALYSIS DATA SHEET

MIN-EN Laboratories Ltd.

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2

PHONE (604) 980-5814

DATE: July 30

1982.

ATTENTION: J. Kerr

Sample Number	6 81	10 86	15 90	20 95	25 100	Ni 105	30 110	35 115	40 120	45 125	50 130	As 135	Mn 140	Au 145	70 150	75 155	80 160
GV 2.04																5	
2.05															5		
2.06															5		
2.07															10		
2.09															10		
2.10															10		
2.11															5		
2.12		10.6							0.8			1.2			5		
2.13		4.1							0.6			1.1			10		
2.14		7.6							0.4			1.4			5		
2.15															10		
2.17															5		
2.19															15		
2.20															5		
2.23															10		
2.24															5		
2.25															5		
2.26															5		
2.27															10		
2.30															10		
2.31															5		
2.32															5		
2.33		6.6							0.8			1.0			5		
2.35															10		
2.36															5		
2.37															5		
2.38															5		
2.39															5		
2.40															10		
GC 2.41															15		

COMPAN

Kerr Dawson

PROJECT No.

## GEOCHEMICAL ANALYSIS DATA SHEET

ATTENTION:

J. Kerr

MIN - EN Laboratories Ltd.

705 WEST 15th ST, NORTH VANCOUVER, BC V7M 1T2  
PHONE (604) 980-5814

F. No. 2-385

DATE: July 30  
1982.

Sample Number	6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb				
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
GV 242																
245		3.4					1.3				4			5		
248		4.2					1.0				1.0			5		
251		7.2					1.3				7			5		
257		2.1					1.2				5			5		
259		1.1					1.0				3			5		
260		2.6					1.1				9			10		
261		2.5					1.3				1.3			5		
262		2.1					1.0				4			5		
263							•							10		
266							•							5		
267							•							5		
268							•							5		
269							•							1.10		
274							•							5		
276							•							10		
284		4.9					1.4				2.1			10		
286		4.2					1.3				2.0			4.0		
289		3.8					1.8				1.9			5		
292							•							8.0		
295							•	9						30		
298							•	9						5		
301							•							10		
302							•							6.5		
303							•							5		
305							•	9						10		
306		4.0					1.7				1.3			5		
307							•							5		
308		5.2					1.6				2.5			10		
GV 309		7.1					?							5		

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## GEOCHEMICAL ANALYSIS DATA SHEET

PROJECT No.

MIN-EN Laboratories Ltd.

F. No. 2-385

ATTENTION:

J. Kerr

705 WEST 15th ST., NORTH VANCOUVER, BC V7M 1T2  
PHONE (604) 980-5814

DATE: July 30

1982.

Sample Number	6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb				
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
GV 31.0			7.7											5		
31.1			15.2											5		
31.2			6.3											5		
31.3			6.8											5		
31.5			5.3											5		
31.6			9.0										1.0			
31.7			10.6										5			
31.8			8.2										5			
31.9			4.2										5			
32.0			9.1										5			
32.1			6.4										5			
32.2			7.3										5			
32.3			11.2										5			
32.4			6.4										5			
32.6			5.8										5			
32.7			9.6										5			
33.0			6.5										5			
33.1			3.9										5			
33.3			5.2										5			
33.4			7.1										5			
33.5			6.7										5			
33.6			8.6										5			
33.7			7.7										10			
33.8			4.6										840			
33.9			4.8										5			
34.0			5.2										5			
34.1			5.6										10			
34.2			6.0										10			
34.5													5			
GV 34.7													5			

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J. Kerr

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Kerr Dawson

PROJECT No.:

## GEOCHEMICAL ANALYSIS DATA SHEET

MIN-EN Laboratories Ltd.

705 WEST 15th ST., NORTH VANCOUVER, BC V7M 1T2  
PHONE (604) 980-5814

F. No. 2-385

DATE: July 30

ATTENTION:

J. Kerr

1982.

Sample Number	6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb				
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
GV 34.8														1.0		
35.0														2.0		
35.4														2.5		
35.5														1.5		
35.6														5		
35.7														2.0		
35.8														5		
35.9														5		
36.0														5		
36.1														5		
36.2														1.0		
36.4														5		
36.5														5		
36.8														3.0		
36.9														5		
37.0														5		
37.1														5		
37.2														5		
37.4														5		
37.5														5		
37.6														5		
37.7														5		
37.9														5		
38.1														5		
38.2		3.6					0.6			12			1.0			
38.3														5		
38.4														5		
38.5														5		
38.6														5		
GV 38.7														1.0		

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*[Signature]*

COMPAN

Kerr · Dawson

PROJECT No.

## GEOCHEMICAL ANALYSIS DATA SHEET

MIN - EN Laboratories Ltd.

705 WEST 15th ST, NORTH VANCOUVER, B.C. V7M 1T2

PHONE (604) 980-5814

File No. 2-385

DATE: July 30

ATTENTION: J. Kerr

1982.

Sample Number	6	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm		Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb			
81	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
GV 38.8														1.0		
38.9														5		
39.0														1.5		
39.1														5		
39.2														1.0		
39.4														1.0		
39.5														5		
39.6														5		
39.7														5		
39.8		2.5						0.8			19			5		
39.9														1.0		
40.0		2.2						0.5			12			5		
40.1														5		
40.2														5		
40.3														5		
40.4														5		
40.5														5		
40.6														5		
40.7														1.0		
40.8														5		
40.9														5		
41.0														5		
41.1														1.0		
41.2														5		
41.3														5		
41.4														5		
41.5														5		
41.6														5		
41.7														5		
GV 41.8														5		

CERTIFIED BY

RECEIVED JULY 30 1982

COMPANY Kerr Dawson

## GEOCHEMICAL ANALYSIS DATA SHEET

PROJECT No.: \_\_\_\_\_

MIN-EN Laboratories Ltd.

Folio 2-385

705 WEST 15th ST., NORTH VANCOUVER, BC V7M 1T2

PHONE (604) 980-5814

DATE: July 30

1982.

ATTENTION

J. Kerr

Sample Number	6 81	10 86	15 90	Pb 95	Zn 100	Ni 105	30 110	Co 115	40 120	45 125	Hg 130	50 135	As 140	Mn 145	Au 150	70 155	75 160	80
GV 419									*							5		
420									*							5		
421									*							5		
422									*							5		
423									*							5		
424									*							5		
425									*							5		
426									*							5		
427									*							10		
428		2.1							0.5				11			5		
429									*							5		
430									*							5		
431									*							5		
432									*							5		
433									*							5		
434									*							5		
435									*							10		
436									*							5		
437									*							10		
438									*							5		
439									*							5		
440									*							10		
441									*							5		
442									*							5		
446									*							10		
447									*							5		
448									*							5		
449									*							5		
450									*							110		
GV 451									*							5		

Coded by

Kerr Dawson

Kerr Dawson

PROJECT No.: \_\_\_\_\_

## GEOCHEMICAL ANALYSIS DATA SHEET

MIN-EN Laboratories Ltd.

705 WEST 15TH ST., NORTH VANCOUVER, BC V7M 1T2  
PHONE (604) 980-5814

F. 10. 2-385

DATE: July 30

1982.

ATTENTION: J. Kerr

J. Kerr

CERTIFICATE

APPENDIX C

WRITER'S CERTIFICATE

**JOHN R. KERR, P. ENG.**

Geological Engineer

#1-219 VICTORIA STREET • KAMLOOPS, B.C. V2C 2A1 • TELEPHONE (604) 374-0544

CERTIFICATE

I, JOHN R. KERR, OF KAMLOOPS, B. C. DO HEREBY CERTIFY THAT:

- (1). I am a member of the Association of Professional Engineers of British Columbia and a Fellow of the Geological Association of Canada.
- (2). I am a geologist employed by Kerr, Dawson and Associates Ltd., of #206 - 310 Nicola Street, Kamloops, B. C.
- (3). I am a graduate of the University of British Columbia (1964), with a B.A. Sc. degree in Geological Engineering.
- (4). I have practised my profession continuously since graduation.
- (5). I supervised and assisted in the collection of data as compiled in this report. I am the author of this report which is based on the aforementioned data.
- (6). I hold no interest in any of the claims described in this report.



John R. Kerr, P. Eng.

September, 1982

KAMLOOPS, B. C.

