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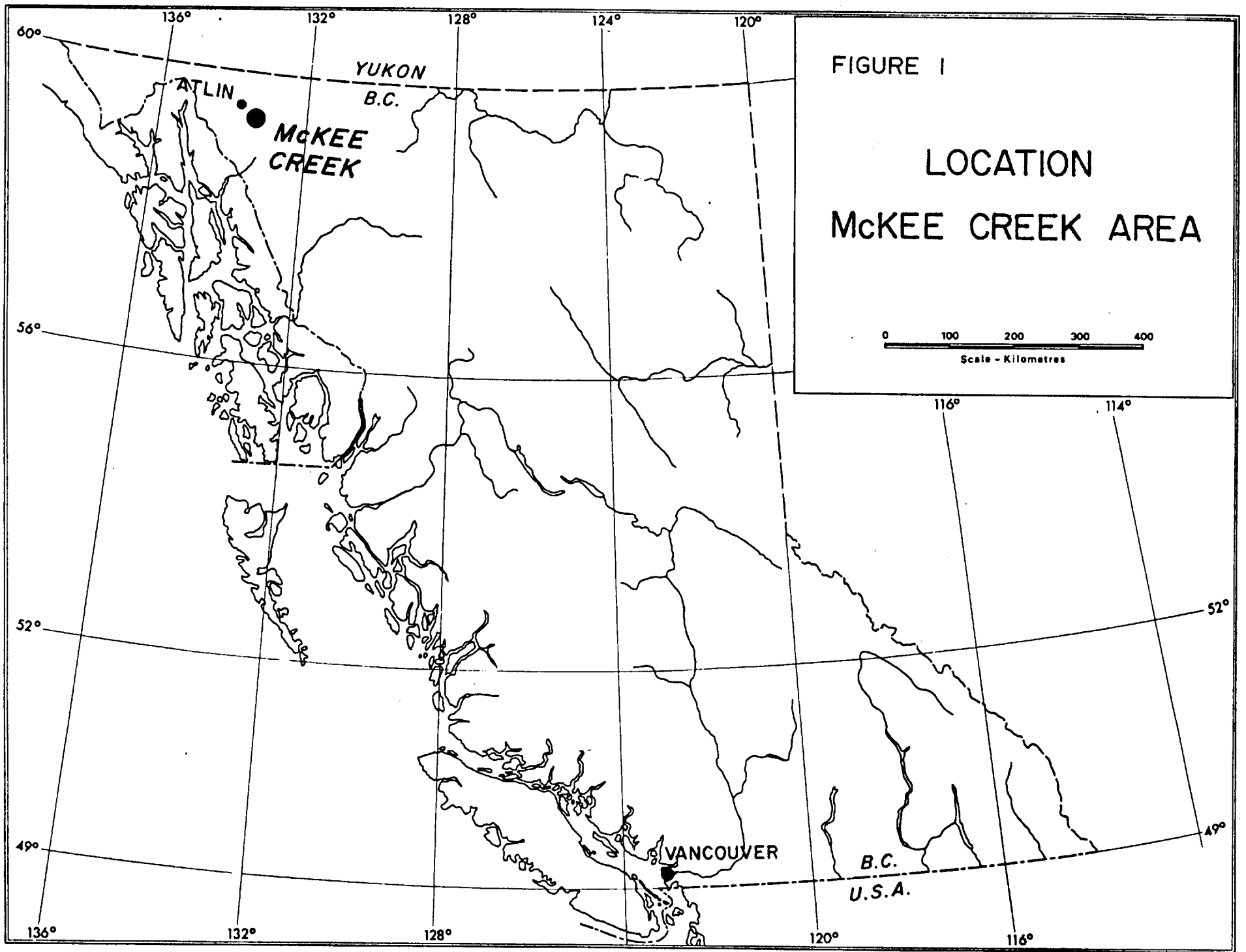
REPORT  
ON THE  
MCKEE CREEK MINERAL CLAIMS  
AND PLACER LEASES  
OF  
PERRON GOLD MINES LTD.  
ATLIN MINING DIVISION  
BRITISH COLUMBIA  
BY  
N.C. CARTER Ph.D. P.Eng.

VICTORIA, B.C.

DECEMBER 7, 1983

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SUMMARY

Perron Gold Mines Ltd. holds, by way of an option agreement, 6 mineral claims and 17 placer leases on McKee and Eldorado Creeks in the Atlin Mining Division of north-western British Columbia.

McKee Creek has produced significant quantities of coarse gold since 1900. Only a small section of the area covered by the present placer leases has been worked to date and only limited attempts have been made to explore for additional auriferous channels. Eldorado Creek has been subjected to only limited investigation.

The 6 mineral claims cover a geological setting comprising an assemblage of argillaceous siltstone, cherts and greenstones of Permo-Carboniferous age which are intruded by serpentized ultrabasic rocks. Most rocks are intensely sheared and quartz veined and carbonate alteration is widespread. Some of the quartz veins have been known to carry appreciable quantities of gold. This geological environment hosts lode gold occurrences elsewhere in the district, and the coarse hackly nature of the placer gold recovered on McKee Creek suggests it may not have moved far from its original source.

An exploration program consisting of seismic surveys and Becker drilling is recommended for certain sections of the placer leases at an estimated cost of \$100,000.

A systematic evaluation of the mineral claims is also recommended. The estimated cost of this program is \$60,000 and would include geological, geochemical and geophysical surveys.

## INTRODUCTION

Perron Gold Mines Ltd., by way of an agreement, holds six mineral claims, five placer mineral leases and twelve placer leases on McKee Creek in the Atlin Mining Division of northwestern British Columbia.

This report, prepared at the request of Perron Gold Mines Ltd., is based on a property examination of the McKee Creek placer and mineral claims by the writer in September of 1982, and on the writer's knowledge of the Atlin area. Additional information was provided by Messrs. A.G. Troup and C. Wong of Mark Management Ltd. on behalf of Perron Gold Mines Ltd.

## LOCATION AND ACCESS

The McKee Creek mineral claims and placer leases are situated 16 km. southeast of the community of Atlin. (Figure 1). Atlin is 180 highway kilometres southeast of Whitehorse and may be reached by highway 7 from Jakes Corner on the Alaska Highway.

The mineral claims and placer leases cover the central and lower sections of McKee and Eldorado Creeks (Figures 2, 2a) in National Topographic Series Map-Areas 104N/5E and 6W. The geographic centre of the claims and leases is at latitude 59°28' North and longitude 133°31' West.

Access to the western part of the properties is by road from Atlin.

MINERAL PROPERTY

The McKee Creek properties held by Perron Gold Mines Ltd. include 6 mineral claims comprising 65 units, 5 placer mineral leases and 12 placer leases in the Atlin Mining Division of British Columbia. These are illustrated on Figures 2 and 2(a) and details are as follows:

<u>MINERAL CLAIM</u>	<u>RECORD NO.</u>	<u>EXPIRY DATE</u>
PENNY (12 units)	1165	October 1, 1984
HARV (18 units)	1385	July 30, 1984
COX (8 units)	1404	August 7, 1984
KIA (6 units)	1405	August 10, 1984
BINGO (12 units)	1972	August 9, 1984
MARY (9 units)	2058	October 7, 1985

<u>PLACER LEASES</u>	<u>EXPIRY DATE</u>
PML 1655	October 23, 1986
PML 1690	October 23, 1985
PML 1790 SUNRISE 2	October 23, 1985
PML 1791 SUNRISE 3	October 23, 1985
PML 1796 SUNRISE 4	October 23, 1985
PL 1461	December 29, 1984
PL 1997	January 2, 1985
PL 1998	January 2, 1985
PL 1999	September 14, 1984
PL 2000	November 28, 1984
PL 2062	November 13, 1984
PL 2401	October 23, 1985
PL 2402	October 23, 1985
PL 3546	June 30, 1984
PL 7466	November 19, 1984
PL 7467	November 24, 1984
PL 5235	November 23, 1984

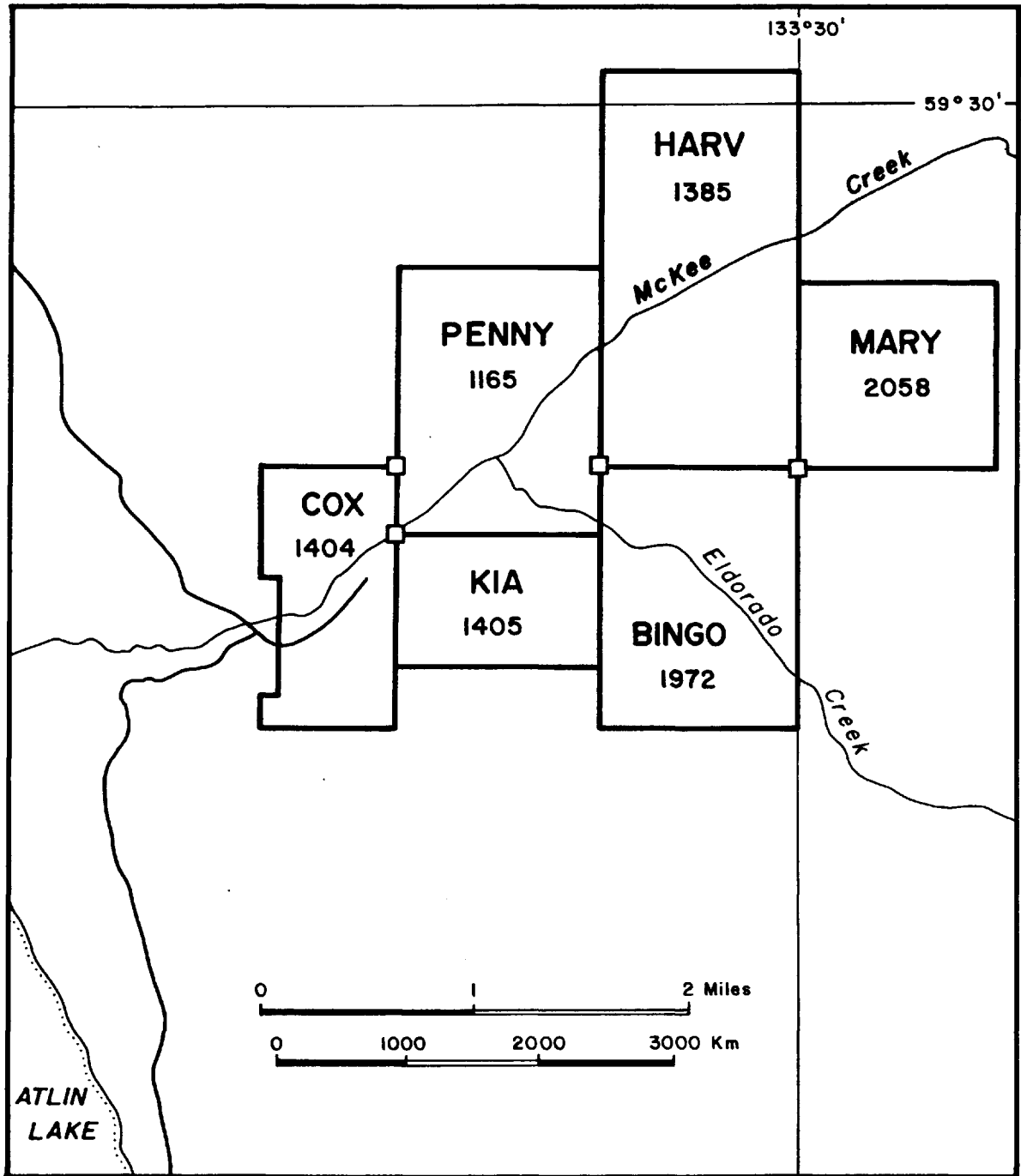


FIGURE 2 - McKEE CREEK MINERAL CLAIMS

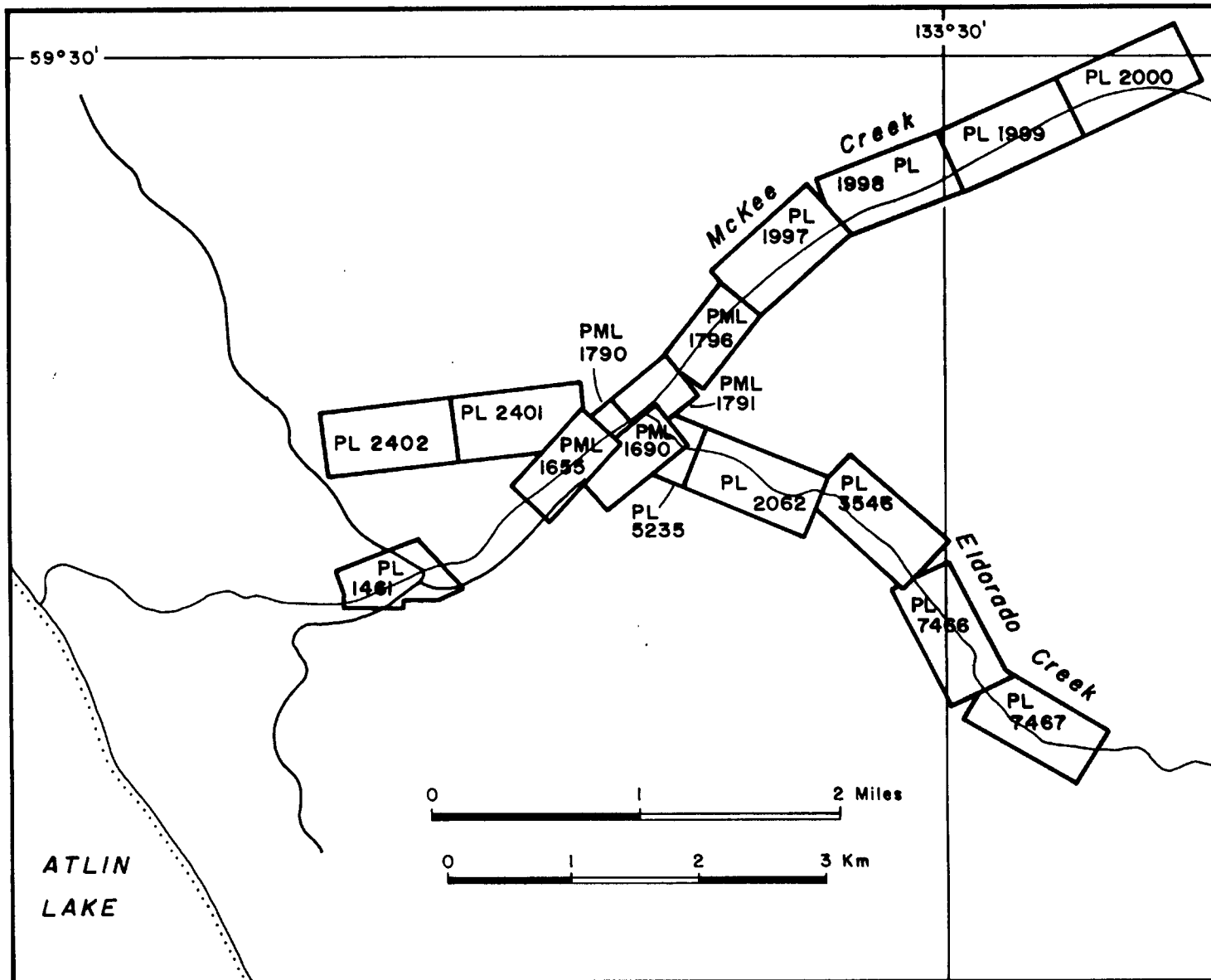


FIGURE 2(a) - MCKEE CREEK PLACER LEASES



The mineral claims were located by the Modified Grid System as prescribed by the Mineral Act of British Columbia, and the placer leases were located under provisions of the Placer Act.

### HISTORY

Placer gold was first discovered in the Atlin area in 1898. Eight principal creeks, including McKee, have been worked to the present day and total recorded gold production to 1946 was 634,147 ounces (Holland, 1950).

Small lode gold prospects north of Pine Creek were first investigated in the early 1900's, in an attempt to locate the source of the placer gold deposits.

McKee Creek placer deposits have been worked more or less continuously since the earliest discovery of placer gold in the region. Recorded production to the end of 1946 was 46,953 ounces (Holland, 1950). Mining has been principally by hydraulic methods, with lesser underground exploration. Since the acquisition of the leases by the present owners in 1973, both hydraulic and conventional placer mining methods have been used.

Exploration for additional pay channels in the past 10 years has included a seismic refraction survey over 1500 metres of line and 93.65 metres of Becker hammer drilling carried out by DuPont of Canada Exploration Limited in 1976 and 1977, and limited percussion drilling on Eldorado Creek in 1982 by the present owners.

The lode gold potential of McKee Creek and environs was first investigated by Consolidated Mining and Smelting in the early 1940's. Gold-bearing quartz veins were discovered by the then placer operators while driving an adit to exploit the gravels. Only limited sampling was done.

Since the location of the present minerals claims, a number of samples have been collected from bedrock exposed by placer mining. One angle percussion hole was drilled beneath a promising zone in September of 1982.

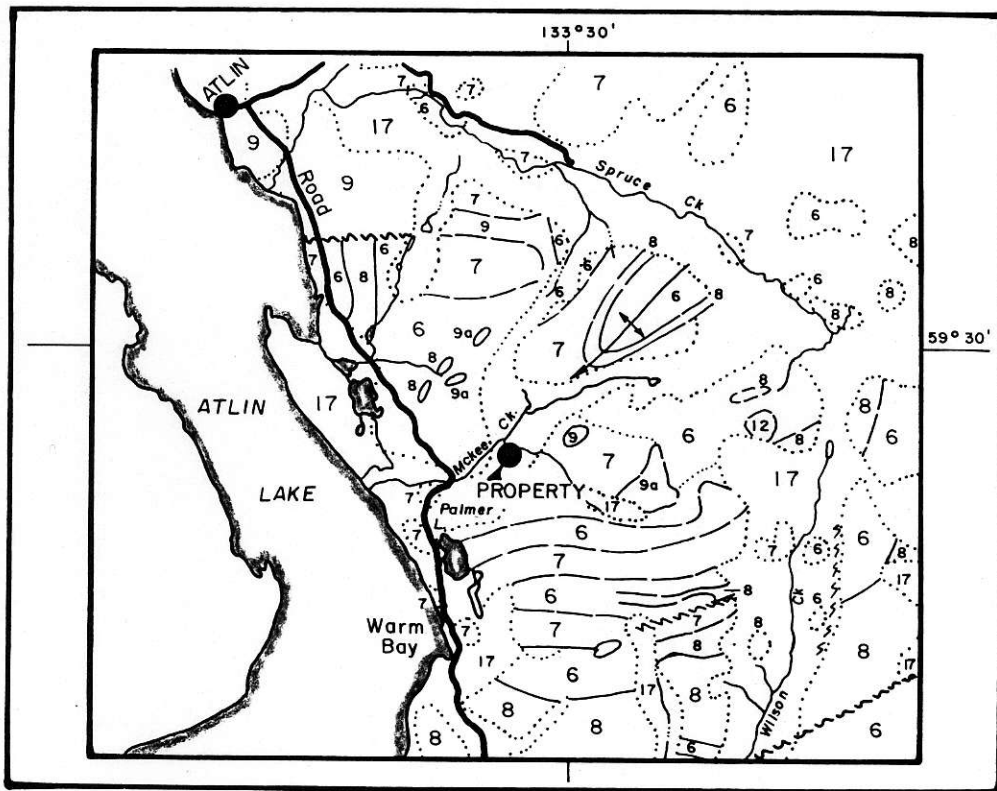
#### PHYSICAL SETTING

The McKee Creek area lies just east of Atlin Lake, the largest lake in British Columbia, situated on the east flank of the Coast Mountains. Elevations within the placer leases range from 800 to 1300 metres above sea level, while those in the outer limits of the mineral claims are in the order of 1500 metres. Tree line is at 1400 metres.

Both Eldorado and McKee Creek form canyons in their lower reaches. The central part of the McKee Creek features up to 30 metres of bedded sand and gravel overburden which overlies pay gravels and has necessitated exploration of these by hydraulic and underground methods in the past.

#### REGIONAL GEOLOGY AND MINERALIZATION

Atlin map-area is underlain by thick sequences of Paleozoic and lesser Mesozoic volcanic and sedimentary rocks which have been intruded by granitic rocks of Cretaceous and Tertiary age. Ultramafic rocks are common within the Paleozoic sequence and are considered to be of equivalent age.



LEGEND

- CENOZOIC**
- QUATERNARY  
PLEISTOCENE AND RECENT**
  - 17 Glacial drift, alluvium
  - TERTIARY AND QUATERNARY**
  - 16 Oryzine basalt and scoria 16a, Tertiary, 16b, Pleistocene
  - TERTIARY (?)**
  - 15 15a, quartz monzonite 15b, gneiss, 15c, gabbro and diorite
  - CRETACEOUS OR TERTIARY**
  - SLOKO GROUP**
  - 14 Andesite, basalt, albite trachyte, albite rhyolite, dacite and related pyroclastic rocks, conglomerate, sandstone
  - CRETACEOUS**
  - 13 13a, alkali, 13b, quartz monzonite
  - JURASSIC** (May be in part older and younger)
  - COAST INTRUSIONS**
  - 12 Undifferentiated granitic rocks, 12a, Black Mountain body, 12b, Fourth of July Creek body, 12c, pink granite, 12d, Mount McMaster body, 12e, diorite, 12f, alkaline granite
  - JURASSIC**
  - LABERGE GROUP**
  - 11 Volcanic greywacke, siltstone, mudstone, shale, conglomerate, minor concretionary sandy limestone
  - TRIASSIC (?)**
  - 10 Greywacke, chert, argillite, conglomerate, tuff, slate, greenstone, impure limestone, jasper
  - PALEOZOIC**
  - PENNSYLVANIAN AND PERMIAN**
  - ATLIN INTRUSIONS**
  - 9 Peridotite, meta-diorite and meta-gabbro, 9a, serpentinite, 9b, carbonized serpentinite, 9c, talc-bearing (steeatized) ultramafic rocks
  - CACHE CREEK GROUP**
  - 6 Chert, argillite, chert-pebble conglomerate and chert breccia, derived quartzite and schist, minor 7 and 8
  - 7 Greenstone and volcanic greywacke, derived amphibolite, minor 6 and 8
  - 8 Limestone and limestone breccia

x MINERAL OCCURENCE

PERRON GOLD MINES LTD.  
ATLIN M.D.-B.C. NTS 104-N-5,6,11,12

GENERAL GEOLOGY MAP

SCALE 1:253,440 (1"=4 Miles)

DATE: OCT 26, 1983

C.W./r.w.r.

AFTER GSC MAP 1082A

FIGURE 3

Much of the Atlin area (Figure 3) is contained within the Intermontane tectonic belt and is underlain by a eu-geosynclinal sequence of cherts, argillaceous siltstones, limestones, greenstones and ultramafic rocks of the Permo-Carboniferous Cache Creek Group. This sequence, referred to as Atlin Terrane, features northwest striking thrust faults and fold axes.

Principal economic deposits of the Atlin area to date are those of placer gold which are contained in channels which are commonly cemented and oxidized and lie on weathered bedrock. Commonly, these are overlain by thick glacial deposits of sand and gravel.

Lode deposits, while not yet as important as the placer deposits, are numerous throughout the region, and include lead-silver veins mined in the past northeast of Atlin and the important Adanac molybdenum deposit north of Surprise Lake. The Surprise Lake batholith, in the central part of the Atlin map-sheet, is geochemically anomalous in uranium, tungsten, tin and most base metals.

Lode gold deposits, north of Pine Creek and south of Atlin, are associated with quartz veins in serpentinized ultramafic rocks and andesites, both of which commonly feature abundant carbonate alteration, usually as malachite.

#### PROPERTY GEOLOGY AND MINERALIZATION

The McKee Creek area is underlain by Cache Creek Group greenstones, argillaceous sedimentary rocks and cherts which are intruded by small plugs of serpentinized ultramafic rocks. (Figure 3). Diorite dykes, possibly feeders for the

volcanic rocks, are also present. Where exposed, all rocks are intensely sheared and brecciated with the principal orientation north-northeast. Zones of shearing commonly contain abundant quartz veinlets and pervasive carbonate alteration including ankerite and fuchsite-mariposite.

Quartz veins and veinlets within the shear zones contain pyrite, lesser arsenopyrite and minor galena and chalcopyrite. Such a zone, exposed in a placer adit believed to have been on the present Penny claim, was sampled by Consolidated Mining and Smelting in the early 1940's and yielded values as high as 0.36 ounces per ton gold over one metre widths.

More recent sampling of similar zones on the Penny claim by a number of companies, including Perron Gold Mines Ltd., has yielded lower gold values, generally ranging from detection limits to about 30 to 40 parts per billion with some samples ranging to 1600 parts per billion.

Samples collected by the writer from one percussion hole in bedrock drilled in 1982 returned values ranging from 11 to 165 parts per billion gold.

McKee Creek has yielded coarse gold from iron and manganese-stained pay gravels in at least two channels (Black, 1953). As previously noted, these are usually overlain by thick overburden and numerous attempts have been made to locate additional channels.

Recent work included Becker drilling by DuPont of a low velocity zone indicated by a seismic survey on the north side of McKee Creek above the confluence with Eldorado Creek.

This drilling suggested the seismic feature was due to the presence of shallow, intensely sheared bedrock.

Percussion drilling of the Eldorado Creek, 1000 metres above its confluence with McKee Creek, may have intersected a buried channel, but circulation was lost at about 25 metres in the three holes drilled.

#### CONCLUSIONS AND RECOMMENDATIONS

McKee Creek has a demonstrated record of placer gold production from a relatively small section of the creek covered by placer leases. The search for additional auriferous channels has been sporadic and no modern exploratory methods have been applied to the entire area covered by leases. The potential of Edlorado Creek is unknown.

The coarse nature of the placer gold recovered from McKee Creek and the association of hackly gold with quartz and rock chips in some of the nuggets suggests they have not moved far from their original source.

The lode gold potential has not been tested in a systematic way even though good values have been obtained from bedrock in the past and the environment is favourable for such occurrences. An impressive showing has recently been uncovered on adjacent claims owned by Standard Gold Mines Ltd. and widespread gold mineralization was discovered by Yukon Revenue north of Pine Creek in a similar geological environment.

A systematic exploration program is recommended to properly assess both the lode and placer potential of the property.

RECOMMENDED PROGRAM

1. Seismic profiles of selected areas on the placer leases, specifically on Eldorado Creek about 1000 metres south of its confluence with McKee Creek in the area of recent percussion drilling, and along the north side of McKee Creek below Eldorado Creek.
  
2. Becker hammer drilling of areas defined by seismic profiles in an attempt to locate buried channels in both areas.
  
3. Sampling and visual and chemical analysis of drill cuttings for gold content.
  
4. Geological mapping and prospecting of the entire mineral claims area at a scale of 1:10,000.
  
5. Sampling of exposures of altered bedrock with geochemical analysis for gold and possibly other elements. Overburden covered areas away from the principal drainages should be soil sampled.
  
6. Areas of interest defined by geology and geochemistry should be covered by a VLF electromagnetic survey.
  
7. Favourable areas should be trenched and sampled prior to a possible diamond drilling program.

COST ESTIMATE

Placer Leases

1.	Seismic surveys - Eldorado and McKee	\$ 20,000.00
2.	Becker Hammer Drilling - 1,000 ft. @ \$40.00/ft.	40,000.00
3.	Geochemical analyses, assaying	5,000.00
4.	Engineering, supervision, reports	20,000.00
5.	Contingencies	<u>15,000.00</u>
	TOTAL	<u>\$ 100,000.00</u>

Mineral Claims

1.	Geological and geochemical surveys	\$ 20,000.00
2.	Geophysics	5,000.00
3.	Geochemical analyses, assaying	10,000.00
4.	Engineering, supervision, reports	15,000.00
5.	Contingencies	<u>10,000.00</u>
	TOTAL	<u>\$ 60,000.00</u>

N.C. Carter, Ph.D. P.Eng.



REFERENCES

- Aitken, J.D., 1960: Atlin Map-Area, British Columbia  
Geological Survey of Canada  
Memoir 307.
- Black. J.M., 1953: Report on the Atlin Placer Camp.  
B.C. Ministry of Energy Mines and  
Petroleum Resources  
Open File Report.
- Gunn, C.B., 1977: Report on Exploration - Atlin -  
McKee Creek, Atlin Mining Division  
British Columbia.  
Assessment Report 6324 - on file  
with Mineral Resources Division,  
B.C. Ministry of Energy Mines and  
Petroleum Resources.
- Holland, S.S., 1950: Placer Gold Production of British  
Columbia.  
B.C. Department of Mines  
Bulletin 28.

CERTIFICATE

I, NICHOLAS C. CARTER, of Victoria, British Columbia, do hereby certify that:

1. I am a geologist registered with the Association of Professional Engineers of British Columbia since 1966.
2. I am a graduate of the University of New Brunswick with B.Sc. (1960), Michigan Technological University with M.S. (1962) and the University of British Columbia with Ph.D. (1974).
3. I have practised my profession in Eastern Canada and the United States and in British Columbia over the past 23 years.
4. This report is based on an examination of the McKee Creek mineral claims and placer leases by the writer in September of 1982, and on research of published reports and maps and progress reports and maps provided by Perron Gold Mines Ltd.
5. I have no interest, direct or indirect, in the McKee Creek mineral claims and placer leases or in Perron Gold Mines Ltd.
6. Permission is hereby granted to use this report in any Filing Statement, Prospectus or Statement of Material Facts to be submitted to the Office of Superintendent of Brokers and the Vancouver Stock Exchange.

Victoria, B.C.  
December 7, 1983

N.C. Carter, Ph.D., P.Eng.