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P E R R O N G O L D M I N E S L T D.

GEOLOGICAL, GEOCHEMICAL, AND GEOPHYSICAL ASSESSMENT REPORT ON THE SYLVIA CLAIM GROUP ATLIN MINING DIVISION, B.C. NTS 104 N/5E. 6W, AND 12E

BY

R.A. GONZALEZ, MSc., F.G.A.C.

OCTOBER, 1984

Claim Name	Units	Record No.	Anniversary Date
PENNY	12	1165	October 1, 1984
HARV	18	1385	July 30, 1984
COX	8	1404	August 7, 1984
KIA	6	1405	August 10, 1984
BINGO	12	1972	August 9, 1984
MARY	9	2058	October 7, 1984

LOCATION: 59° 29' NORTH LATITUDE-133°32' WEST LONGITUDE

OPERATOR: MARK MANAGEMENT LTD.

CONSULTANT: ARCHEAN ENGINEERING LIMITED

PROJECT GEOLOGIST: COLMAN WONG

GEOLOGICAL, GEOCHEMICAL, AND GEOPHYSICAL ASSESSMENT REPORT ON THE SYLVIA CLAIM GROUP ATLIN MINING DIVISION, B.C. NTS 104 N/5E, 6W, AND 12E

SUMMARY

The Sylvia Claim Group is located along McKee Creek near the east shore of Atlin Lake approximately 14 km (9 miles) southeast of the town of Atlin in northwestern British Columbia. In 1984, a programme of geologic mapping, geochemical sampling, and geophysical surveying was carried out by Mark Management Ltd. for Perron Gold Mines Ltd. which presently holds an option on this property. Results of the programme outlined areas which could have a potential for hosting lode-gold mineralization similar in occurrence to Standard Gold's new find located less than two kilometres to the northeast in a similar sequence of rocks.

This property has a history of placer gold production and there is a reasonable probability that additional economic reserves are available. It is also possible that this property has a lode-gold potential. A two part exploration programme was recommended to test both the lode and placer potential. The lode-gold programme consisted of detailed geologic mapping, systematic soil and rock chip sampling, and a VLF-EM survey over two selected target areas; this phase of the property development is now complete and is the basis for this report.

The placer programme consisted of a seismic reflection survey to locate buried Tertiary channels followed by a rotary drill programme; this work phase is scheduled to be completed by early August and will be reported separately.

Additional exploration programmes will be contingent upon favourable results and will probably entail trenching and preliminary diamond drilling of anomalous geologic, geochemical, and geophysical targets.

FIGURES

TABLES

1.0 INTRODUCTION

The Sylvia Claim Group (McKee Creek Property) is a lode-gold prospect located in the historic Atlin Placer Gold Mining Camp in northwestern British Columbia (Figure 1). The claim group consists of six Mineral Claims located along McKee and Eldorado Creeks. These claims cover an area which has had a long history of placer gold production. The property is owned by Messrs. J. Harvey and H. Evenden and held under option by Perron Gold Mines Ltd. of Vancouver, B.C.

Previous exploration work on the property included a 600 foot adit driven into the north bank of McKee Creek in 1940-41 by placer miners to exploit the gravels, a sampling programme by Cominco Ltd. in late 1941 and a percussion drilling programme by Dupont of Canada Exploration Ltd. in 1977. Samples collected by Cominco from a quartz vein zone returned gold values of up to 10 gm per tonne (0.36 ounces per ton). In 1983, a small geologic mapping and rock geochemistry programme was carried out over the main placer working along McKee Creek to test the lode potential of the property. The success of this cursory programme prompted a further systematic exploration effort. In 1984, a detailed geologic, geochemical, and geophysical assessment of the property was undertaken and supervised Mr. C. Wong of Mark Management Ltd. under the guidance of A.G. Troup, P.Eng., of Archean Engineering Ltd. The success of this years programme was sufficiently encouraging to warrant a recommendation for continuing the systematic exploration of the property.

1.1 LOCATION AND ACCESS

The Sylvia Claim Group is a lode-gold prospect staked over one of the Atlin Placer Gold Camp's significant gold producing drainages. The Atlin Placer Gold Camp covers an area of approximately 380 square kilometres of mountainous country, in the Atlin Mining Division in northwestern British Columbia (see Figure 1). The placer area is east and south of the town of Atlin which is centrally located on the east side of Atlin Lake. The area trends northeastward and is approximately 26 km long and up to 20 km wide. Most of the area is drained to the west by Fourth of July Creek in the north, Pine and Spruce Creeks in the central portion, and McKee and Eldorado Creeks in the south. The eastern portion of the district is drained by the north flowing Snake, Otter, and Wright Creeks and the east and south flowing Feather and Slate Creeks.

Atlin is, and has been since the early days of the Klondike Gold Rush of 1897 and 1898, the principal population and supply centre of northwestern British Columbia. It is approximately 150 kilometres south of Whitehorse, the capital and principal Yukon city. Atlin, since 1949, has had a road connecting it with Jakes Corners on the Alaska Highway in the Yukon Territory. This road is open all year except for short periods when some of the hills are iced over. From Jakes Corners another road goes to Carcross, Y.T. The

Alaska Highway extends from Dawson Creek, B.C., to Whitehorse, Y.T., and beyond to Alaska and is open all year. Both Carcross and Whitehorse are on the White Pass and Yukon Railway line, which extends from Skagway, U.S.A. to Whitehorse; however, at present the railroad is not in service. Skagway is the terminus for several coastal lines; and, until the closure of the rail line in late 1982, most heavy freight to the area went by boat to Skagway, thence by train to Carcross and thence by truck to Atlin. Now that the White Pass and Yukon Railway is closed all heavy cargo must be transported by truck from Skagway or from the east along the Alaska Highway. For passengers traveling to the area, it is best to fly to Whitehorse and go from there to Atlin by plane, car, or bus. Whitehorse is served by scheduled flights from both Vancouver and Edmonton. Planes for charter trips are available at Atlin, Whitehorse, and Lower Post on the Dease River. Helicopters are available in Atlin on a year round basis.

The Sylvia Claim Group is located in the southwestern portion of the placer district approximately 14 km southeast of Atlin. It is located at the corners of N.T.S. Quadrangles 104N/5E, 6W, and 12E. Terrestial coordinates for the centre of the claim group are as follows:

59° 29' North Latitude
133° 32' West Longitude.

Within the area roads extend to all the placer creeks. The roads are in good condition except in the eastern part of the area where the roads are considered to be low-maintenance summer roads. Road access to the property is provided by the gravel-surfaced Atlin to O'Donnel River road. A rough four-wheel drive road leaves this road immediately south of the McKee Creek Bridge and provides access to that portion of the property along lower McKee and Eldorado Creeks (Figures 2 and 3).

1.2 PHYSIOGRAPHY, VEGETATION, AND CLIMATE

The Atlin area is located just east of the Coast Mountains on the Teslin Plateau. The town of Atlin lies on the east shore of Atlin Lake, the largest natural lake in British Columbia, at an elevation of 670 m (2,200 feet). The topography is moderately rugged on the Sylvia Group with slopes of up to 15° rising from the McKee Creek Valley floor at an elevation of 914 m (3,000 feet) to the peaks of the Johnson Range at elevations well over 1524 m (5,000 feet). Glaciers occupied present day Atlin Lake and extended up many of the creeks. This extensive ice sheet acked as a dam against which were deposited thick layers of glaciofluvial till. Along McKee Creek, prominent 60 m (200 foot) cliffs of cross-bedded glaciofluvial material are common.

The tree line is at approximately 1370 m (4,500 feet) on north facing slopes and 1525 m (5,000 feet) on south facing slopes. Below 1370 m (4,500 feet), the valleys are forested with lodgepole pine,

black spruce, aspen and dwarf birch. Mountain alder and willow grow near streams with stunted buckbrush covering the hills above tree line.

Atlin enjoys a pleasant summer climate with temperatures averaging 20°C and little precipitation. Winter temperatures average -15°C in January with moderate snowfall. Total annual precipitation averages 279.4 millimetres of moisture. "Winter" conditions can be expected from October to April.

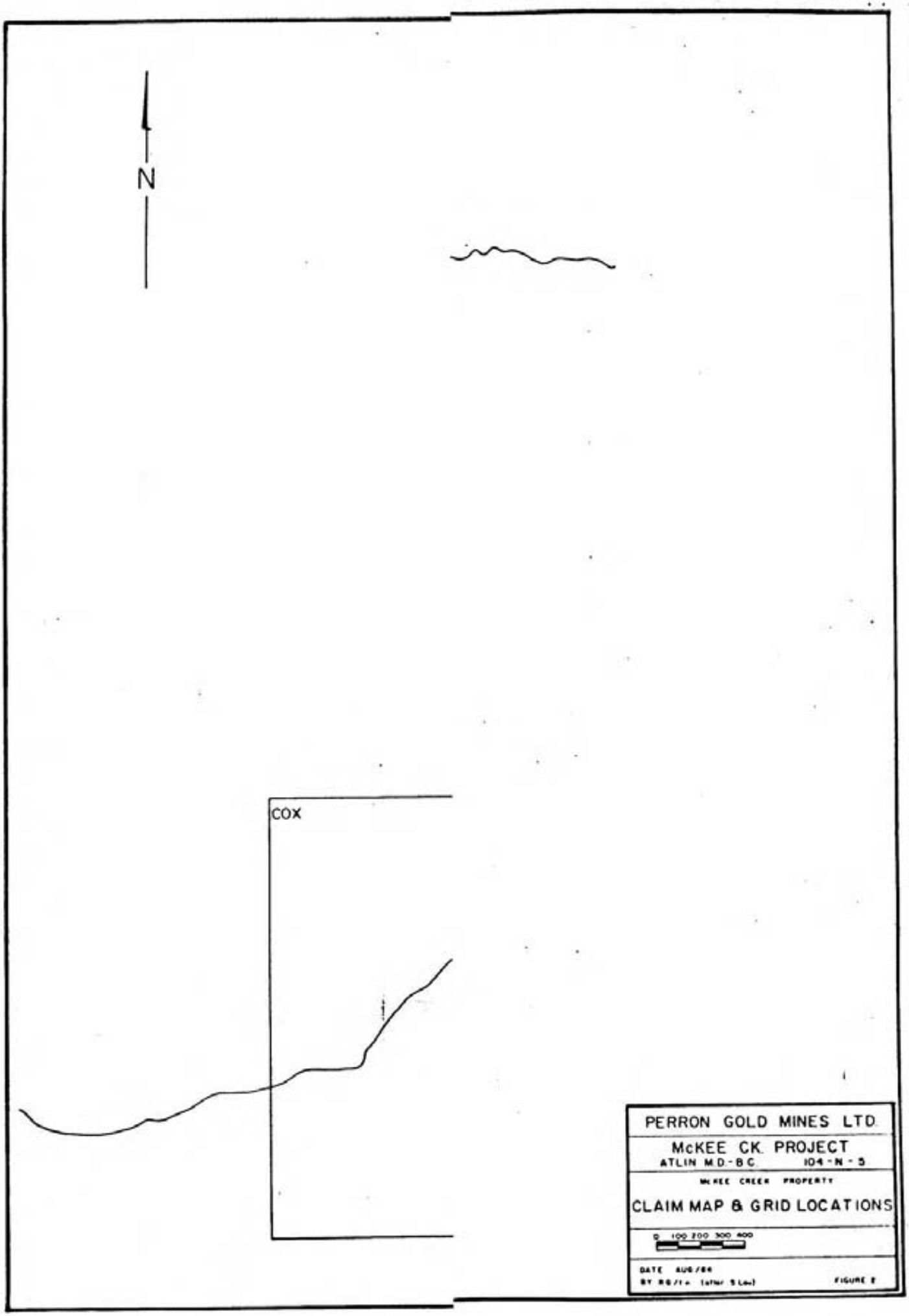
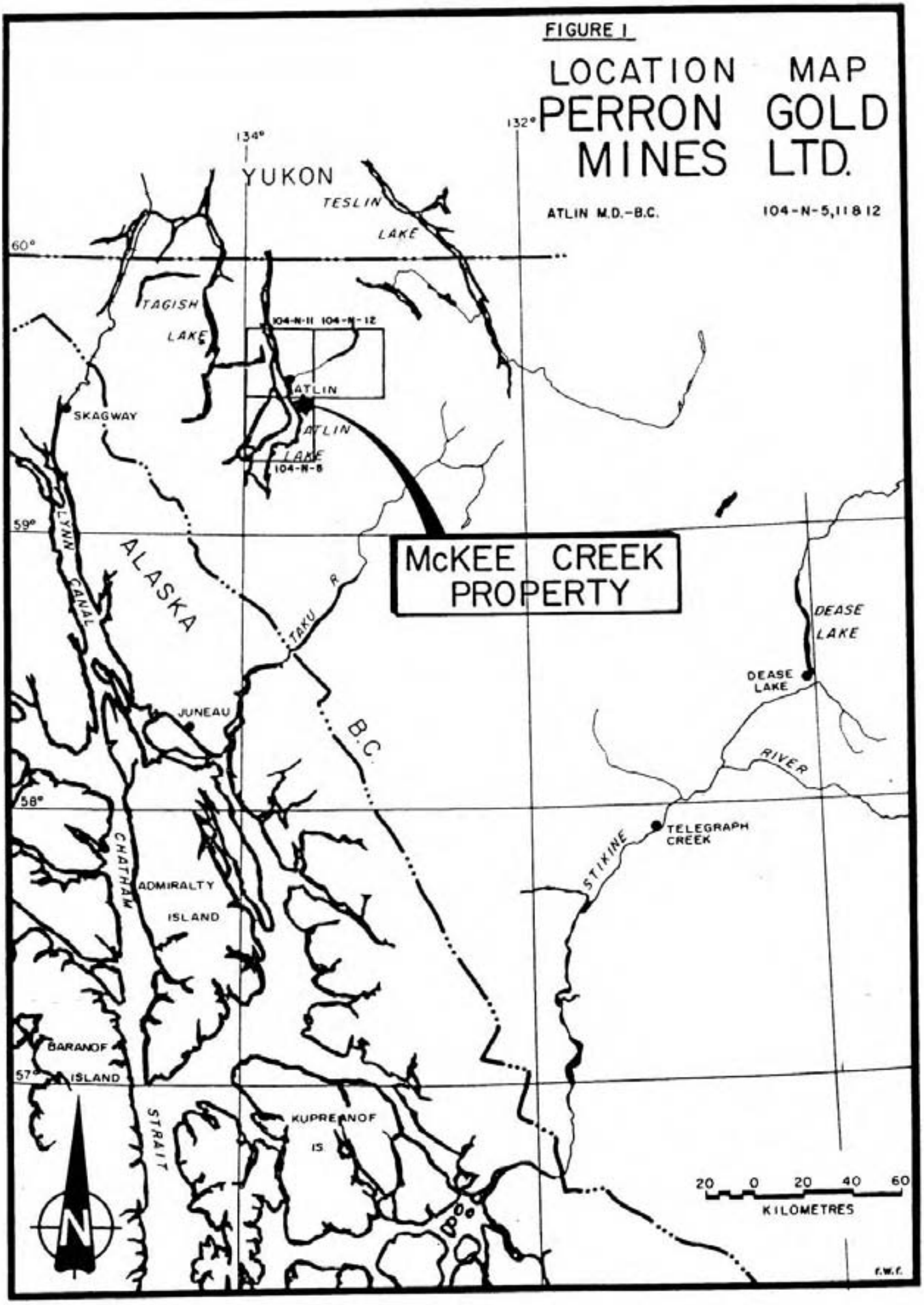

N
COX
PERRON GOLD MINES LTD.
McKEE CK. PROJECT
ATLIN M.D. - B.C. 104 - N - 5
McKEE CREEK PROPERTY
CLAIM MAP & GRID LOCATIONS
0 100 200 300 400
DATE AUG/84
FIGURE 2

FIGURE 1

LOCATION MAP
PERRON GOLD MINES LTD.

ATLIN M.D.-B.C.

104-N-5,11 & 12



1.3 CLAIM INFORMATION

The Sylvia Group Claims are located in the Atlin Mining Division and consists of six Modified Grid claims totalling 67 units. Claim information is listed in Table 1, below:

TABLE 1

CLAIM STATUS FOR THE SYLVIA GROUP CLAIMS (MCKEE CREEK PROPERTY)

Claim Name	Units	Record No.	Recorded Date
PENNY	12	1165	October 1, 1980
HARV	18	1385	July 30, 1981
COX	8	1404	August 7, 1981
KIA	6	1405	August 10, 1981
BINGO	12	1972	August 9, 1983
MARY	9	2058	October 7, 1983
	65		

1.4 HISTORY

Before 1898 very little was known of the Atlin country beyond the fact that it contained fur, big game, and several large lakes, the largest of which was called "Atlin," meaning "Big Water," by the Tlinkit-Tagish Indians. According to the most authenticated sources, B.C. Dept. of Mines, Annual Reports for 1900, 1904, 1932, and 1936, gold was first discovered on Pine Creek about July, 1897, by a man named Miller while driving cattle into Dawson and the Klondike Gold Fields. The information, together with a rough map, was passed on to Miller's brother, Fritz, in Juneau, who together with Kenny McLaren, a Canadian prospector named Hans Gunderson, and another, were on their way to the Klondike. These men decided to investigate and with the aid of the map were able to located the creek with little difficulty and staked the first claims about July 8, 1898. Public information concerning the new strike reached Alaskan ports on August 5th, and Victoria, B.C. on August 13th, 1898, and resulted in a rush to the area. The first workings were on Pine Creek and by the end of 1898, more than 3,000 people were camped in the Atlin area. Only eight creeks, Spruce, Pine, Birch, Boulder, Ruby, Otter, Wright and McKee, have been important producers in the Atlin camp, although gold has been produced along 21 other creeks including Dominion, Eldorado, Feather, Fox, Rose, Slate, Snake, and O'Donnel River.

Uninterrupted placer mining in the Atlin camp has produced an estimated one million ounces of gold since 1898. Spruce Creek, the richest stream in the camp, has yielded more than 40 per cent of this gold. The pay streak along Spruce Creek is over 5 kilometres long,

approximately 2 m thick, and up to 60 m wide. Near the southern end of the pay streak, the gravels are reported to have averaged about 80 gm of gold to the cubic metre along a 600 m section of the creek. Table II shows the gold production from the main creeks for the period up to 1946, the last year for which individual creek recoveries were obtained.

Since the late 70's interest and activity in the placer deposits has increase with the increase in the price of gold. Today the area is swarming with activity, and for five months a year the area is alive with small and medium-sized operations re-working or re-examining the area.

Gold-bearing quartz veins were first discovered in the Atlin area in 1899 and by 1905 most of the known showings had been discovered. Although the original showings have been repeatedly worked and re-examined there is no record of regional exploration for lode mineralization since 1905. In 1981, Yukon Revenue Mines Ltd. acquired and re-examined the old Lakeview property. Work done by Yukon Revenue showed low-grade gold values over an extensive but delicate stockwork of carbonatized and silicified andesite adjacent to a serpentinite intrusive.

The discovery by Yukon Revenue Mines Ltd. and the similarity of geology near major placer gold producing streams prompted Perron Gold Mines Ltd. to option the Sylvia Group Claims.

TABLE 2 (from Holland, 1950 and Black, 1953)

GOLD RECOVERY FROM PRODUCTIVE CREEKS, ATLIN AREA, 1898-1946.

STREAM NAME	OUNCES OF GOLD PRODUCED
Spruce Creek	262,603
Pine Creek	138,144
Boulder Creek	67,811
Ruby Creek	55,272
McKee Creek	46,953
Otter Creek	20,113
Wright Creek	14,729
Birch Creek	12,898
All Others (21 creeks)	15,624
TOTAL PRODUCTION	**634,147**

Note: B.C. Dept. of Mines records show that for this same period 705,229 ounces of gold was sold from the Atlin area suggesting that not all gold production was reported.

2.0 GEOLOGY

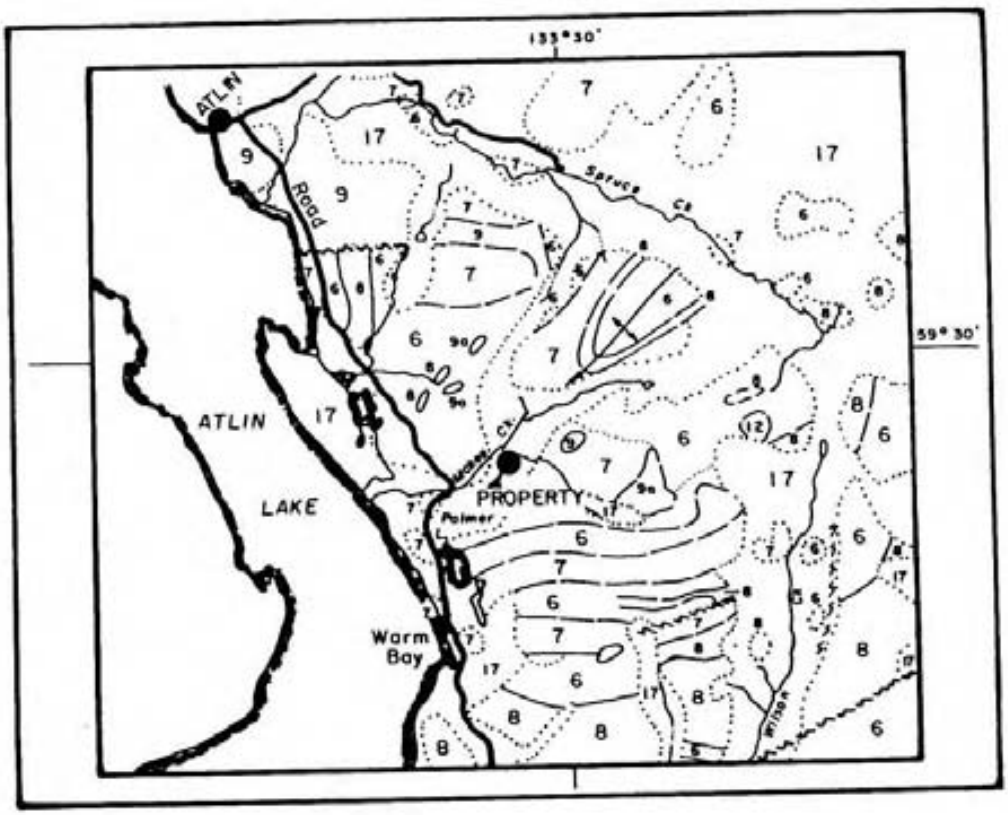
2.1 REGIONAL GEOLOGY

Geologic mapping of this area was undertaken in 1951-55 by J.D. Aitken of the Geological Survey of Canada (GSC) and compiled as Map 1082A (a portion of which is reproduced on Figure 3). In 1966-68, J.W.H. Monger, also of the GSC, selectively mapped the Atlin area and published his findings in GSC Paper 74-47.

The Atlin region is located in a eugeosynclinal area composed of three distinct northwest striking tectonic belts; the St. Elias and Insular Belt, the Coast and Cascades Belt, and the Intermontane Belt. The rocks of the area belong to the Atlin Terrane, which represents an independent tectonic entity of the oceanic sequence of the Intermontane Belt in the Canadian Cordillera. The Atlin Terrane consists of upper Paleozoic age radiolarian cherts, pelites, carbonates, volcanics, and ultramafics. These rocks are intruded by Mesozoic granite, alaskite, and quartz monzonite. The youngest rocks of the Atlin Terrane are composed of Tertiary and Quaternary volcanics. Till deposited by receding Pleistocene glaciers extensively covers the valleys.

The Atlin Terrane is bounded on the northeast by a northwest striking vertical fault and on the southwest by a northwest striking reverse fault. Structurally, the terrane is characterized by compressional deformation which is similar in style and trend to the southwest bounding faults (Monger, 1975). Minor fold axes generally strike northwest or trend southwest.

Recent work has demonstrated that there is an important genitic relationship between the ultramafic rocks and the location for both placer and lode-gold deposits. The Pennsylvanian and Permian ultramafics are part of the Atlin Intrusions and consist of peridotite and serpentinite. The rock is usually dark green to dull waxy green in colour and locally talcose. Alteration of the ultramafic is extensive. Most of the rocks have been subject to varying intensities of serpentinization or carbonatization. The carbonatized ultramafic is characterized by rusty-orange brown weathering and its recessive nature. Within the upper portion of the carbonatized ultramafics, and often extending a considerable distance into chert beds, are located all of the known lode-gold showings.



LEGEND

CENOZOIC

QUATERNARY
PLEISTOCENE AND RECENT
17 Glacial drift, alluvium

TERTIARY AND QUATERNARY
16 Olivine basalt and scoria, 16b, Tarsney, 16c, Pleistocene

TERTIARY (?)
15 15a, quartz monzonite, 15b, porphyritic 15c, gabbro and diorite

CRETACEOUS OR TERTIARY
SLOKO GROUP
14 Andesite, basalt, siliceous tuffaceous, siliceous argillite, chert, and coloured porcellanous rocks, conglomerate, sandstone

CRETACEOUS
13 13a, diorite, 13b, quartz monzonite

JURASSIC (Also be in part older and younger)
COAST INTRUSIONS
12 Undifferentiated granitic rocks, 12a, Black Mountain body, 12b, Fourth of July Creek body, 12c, post granite, 12d, Mount McMaster body, 12e, diorite, 12f, alkaline granite

JURASSIC
LOGTUNG GROUP
11 Volcanic greywacke, siltstone, mudstone, shale, conglomerate, minor sedimentary sandy limestone

TRIASSIC (?)
10 Greywacke, chert, argillite, conglomerate, tuff, shale, greenstone, impure limestone, skarn

PALEOZOIC

PENNSYLVANIAN AND PERMIAN
ATLIN METAMORPHICS
9 Phyllonite, meta-diorite and meta-gabbro, 9a, serpentinite, 9b, carbonaceous serpentinite, 9c, talc bearing (ultramafic) chloritic rock

CADWELL CREEK GROUP
6 7 8
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

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 MILE)

DATE: JAN. 1984 C.W./r.w.r. C.E.T.

AFTER GSC MAP 1082A FIGURE 7

2.2 PROPERTY GEOLOGY

Outcrop exposure accounts for less than 5 per cent of the surface area on the properties. Felsenmeer is present in areas of no outcrop and is assumed to be close to outcrop. Till covers the valleys below 1370 m (4,500 feet) elevation, and tailings from old placer workings extensively cover the lower portions of McKee and Eldorado Creeks.

The property is underlain by Cache Creek Group metasediments and volcanics intruded by Pennsylvanian and Permian ultramafics and a minor diorite dike (Figure 4).

The Cache Creek Group rocks are of Pennsylvanian and Permian age and consist of limestone, argillite, chert, and andesite. Monger (1975) classifies the limestone, argillite, and chert as forming part of the Kedahda Formation and the andesite as part of the Nakina Formation. He states that the Nakina Formation volcanics (basalts) "are conformable with bedded chert of the Kedahda Formation, the diabase locally intrudes it, and the lithic tuff is gradational with it". The implication is that both the Nakina Formation and the Kedahda Formation occupy the same time but that the Nakina event is slightly older.

Detailed geologic mapping (Figure 4 and Figure 5) on the Sylvia Group suggests, however, that the stratigraphic sequence is reverse to that proposed by Monger. Ash-grey, massive limestone forms the lowest unit seen on the property and is overlain by chert, typically dark grey to black in colour and locally interlayered with argillite containing beds of graphite. Ultramafics are believed to intrude the sedimentary package and locally may represent minor flows. Andesitic extrusives, typically drab grey-green in colour, siliceous, sometimes weakly carbonatized, and containing up to 1% primary pyrite, appear to be the youngest unit.

Because of limited exposures structural features are probably more complex than presently believed. The principal structural feature is a southwest plunging syncline with its axis parallel to and presently occupied by McKee Creek. The plunge of the syncline is steeper than the gradient of the creek. Small gentle anticlines flank either side of the syncline, and ultramafic intrusives are only seen along the axis of the fold structures. A shear zone, trending $030^{o}/40^{o}$, was traced for 700 m up McKee Creek beginning just below the McKee-Eldorado Creek confluence; this shear appears to trace the synclinal axis.

Gold mineralization appears to be confined to the hanging wall portion of a carbonitized ultramafics located immediately south of the confluence of McKee and Eldorado Creeks.

3.0 GEOCHEMISTRY

3.1 SOIL SAMPLING

3.1.1 SAMPLING AND SAMPLE TREATMENT

A total of 246 soil samples were collected from three grids (Con, Chal, and SA Grids) established on the Penny and Harv Mineral Claim (Figure 2) and from a small reconnaissance programme surrounding these claims. All grids were believed to be underlain, in part, by carbonatized ultramafics intruded into the chert member of the Cache Creek. Using a lightweight mattock, 'B' horizon samples were collected at 25 metre intervals along establised grid lines. Figures 5 and 6 show the sample locations and results of the samples collected on the Con Grid while Figures 12 and 13 indicate sample locations and results on the Chal Grid.

All samples were shipped to Chemex Labs Ltd. in North Vancouver where they were oven-dried at approximately 60^{o}C and sieved to minus 80 mesh, The coarse fraction was discarded and the minus 80 fraction analysed for copper and iron using standard atomic absorption techniques. Gold was also analysed by atomic absorption using the per-concentration technique.

3.1.1 DISCUSSION OF RESULTS

Appendix A shows the results of simple statistical treatment of the soil sampling data. Considering the overall low values of most of the samples, the immediate impression is that soil sampling is of questionable value in outlining potential targets.

Seven samples returned gold values above the detection limit (>10 ppb); they ranged from 20 to 130 ppb. Since the majority of the values obtained in the laboratory were below the detection limit no attempt was made to interpret the results by statistical methods. However, previous experience in the Atlin Gold Camp has shown that gold values of 20 ppb or greater may be considered important and possibly anomalous.

It can be seen from the bargraph that the copper values show a normal distribution with a mean of 41 ppm and a Standard Deviation of 29 ppm; the threshold was arbitrarily set at 95 ppm with anomalous values set at 125 ppm. None of the anomalous copper value had corresponding anomalous gold values.

The bargraph (see Appendix) for iron suggests that the soil values are coming from at least two populations. Considering only the background values of the lower population, the anomalous level should be about 3 % iron.

3.2 ROCK CHIP SAMPLING

3.2.1 SAMPLING AND SAMPLE TREATMENT

Up to the first of August a total of 82 rock chip samples were collected for assay from various rock types, quartz veins, and mineralized float. Typically the samples consisted of two or three fist-sized representative specimens. The samples were shipped to Chemex Labs Ltd. in North Vancouver where they were crushed to minus 100 mesh and fire assayed for gold. The samples were also analysed for copper and iron using standard atomic absorption techniques.

3.2.2 DISCUSSION OF RESULTS

All the samples gave disappointing gold assay values (only 3 samples were above the detection limit) and suggest that surface chip sampling is ineffective for outlining gold bearing horizons. However, it is important to note that on the Standard Gold Mines' discovery, the mineralized quartz veins are topographically recessive and are not exposed on surface. Only the barren bull quartz sections of the veins are found in outcrop. Similar recessive mineralized quartz veins may exist on the Sylvia Group of claims.

4.0 GEOPHYSICS

4.1 VLF-EM SURVEY

4.1.1 Instrument and Survey Techniques

A Geonics EM-16 unit was used to carry out a detailed VLF-EM survey over two grids established on the Penny Mineral Claim. The survey was conducted over areas believed to be underlain by gold-bearing horizons. Approximately 6.8 line kilometers were surveyed (3.9 line km on the Con Grid and 2.9 line km on the Chal Grid) with readings taken at 25 metre intervals along lines trending northwest-southeast. Using the submarine transmitting station in Honolulu, Hawaii (Station NPM, 23.4 kHz), in-phase and quadrature readings were taken in a northwesterly (300^{o} direction to insure that east and south dips were indicated as negative readings by the instrument. The in-phase readings were later reduced by use of the Fraser Filtering Technique (Fraser, 1969) in order that the results could be contoured.

4.1.2 Presentation and Discussion of Results

Results of the survey are shown on Figures 8, 9, 10, and 11, at a scale of approximately 1:2000. In all cases the filtered in-phase readings have been contoured at 10% intervals.

The results on the Con Grid show a very strong northeast trending VLF-EM anomaly in an area covered by overburden. The conductor is traceable for more than 200 metres where it crosses beyond the limits of the survey. The highest contoured value is inexcess of 70% and suggests that this conductor may be of significant importance, however, because of the limited area cover by the EM survey, the anomalous reading remains poorly defined. The strike of the conductor, although poorly defined, appears to be parallel to the local geology suggesting that it may be reflecting a stratigraphically controlled body. In this regard, more work will be required.

The results of the Chal Grid surveys outline two sub-parallel, widely spaced, broad, and weak anomalies. The area of anomalous reading is underlain by limestone, and the readings appear to be reflecting the contact between limestone and chert.

5.0 CONCLUSIONS

The results from the 1984 programme are promising and indicate a good potential for the discovery of gold mineralization similar in occurrence to Standard Gold Mines Ltd's new discovery. Important findings of the programme are summarized as follows:

1) Geologic mapping of the properties shows Cache Creek Group rocks to be intruded by ultramafics of the Atlin Intrusions and a Cretaceous(?) diorite dike. The ultramafics are extensively carbonatized and serpentinized; gold tends to concentrate in the sediments immediately above the ultramafic-chert contact.

2) Grab samples of various rock types and quartz boulders returned low gold and copper values.

3) Soil sample results over the Penny and Harv Claims are inconclusive. Results from the Penny Claim (Con Grid) show an area of anomalous soil samples adjacent to a moderate EM conductor.

4) VLF-EM survey results over the Penny Claim show several moderate to strong northeast trending conductors, which may reflect the underlying geology with a potential of hosting economic mineralization.

Respectfully submitted,
ARCHEAN ENGINEERING LIMITED

R.A. Gonzalez, M.Sc., F.G.A.C.

6.0 REFERENCES

Aitken, J.D., 1960; Geology, Atlin, Cassiar District, British Columbia: Geological Survey of Canada, Map 1082A, Scale 1:253,440.

B.C. Minister of Mines, Annual Reports; 1900, 1904, 1932, and 1936.

Black, J.M., 1953; Report on the Atlin Placer Camp: B.C. Ministry of Energy, Mines and Petroleum Resources, Open File Report, 71p.

Boyle, R.W., 1979; The Geochemistry of Gold and its Deposits: Geological Survey of Canada, Bulletin 380, 584 p.

Carter, N.C., 1983; Summary Report, McKee Creek Mineral Claims: Report dated March 23, 1983.

Fraser, D.C., 1969; Contouring of VLF-EM data: Geophysics, v.34, no.6, p.958-967.

Holland, S.S., 1950; Placer Gold Production of British Columbia: B.C. Ministry of Energy, Mines and Petroleum Resources, Bulletin 28, 89p.

Monger, J.W.H., 1975; Upper Paleozoic Rocks of the Atlin Terrane, Northwestern British Columbia and South-Central Yukon: Geological Survey of Canada, Paper 74-47, 63p. and maps.

Troup, A.G. and Wong, C., 1982; Geochemical, Geological, and Geophysical Report on the Shuksan Property: Engineer's Report.

Troup, A.G. and Wong, C., 1983; Preliminary Geochemical and Geological Report on the McKee Creek Property: Engineer's Report.

7.0 STATEMENT OF PROFESSIONAL QUALIFICATIONS

R.A. GONZALEZ, M.Sc., F.G.A.C.

ACADEMIC

1965	B.Sc. in Geology	The University of New Mexico, U.S.A.
1968	M.Sc. in Geology	The University of New Mexico, U.S.A.

PROFESSIONAL

1983	Archean Engineering Limited	Overseas Manager
1980-1983	Placer Development y Cia. Ltd. (Chile)	Ass't Exploration Manager
1977-1980	Consultant attached to the Geological Survey of Malaysia	Ass't Project Manager on a C.I.D.A. supported mineral exploration survey over Peninsular Malaysia
1975-1977	Province of Manitoba	Resident Geologist for the Manitoba Dept. of Mines.
1971-1975	Giant Mascot Mines Limited	Senior Geologist
1970-1971	New Jersey Zinc (Canada) Ltd.	Exploration Geologist
1968-1970	Anaconda American Brass Ltd.	Research Geologist
1965-1966	Mex-Tex Mining Co.(U.S.A)	Geologist

8.0 COST STATEMENT

PHYSICAL WORK, GEOLOGICAL, GEOCHEMICAL, AND GEOPHYSICAL SURVEYS
2 MAY, 1984 TO 19 JUNE, 1984

GENERAL COSTS

Project Preparation:		$ 2,202.42
Food & Accommodation:		
5 persons, 182 Man Days @ $27.87/day.		5,071.68
Supplies:		7,114.65
Fuel:		1,460.62
Shipping/Postage:		662.20
Maint./Repairs		278.41
Consulting Fees:		
Archean Engineering Ltd.		1,646.67
Rentals:		
Ezekiel Camp Equipment:		
182 man days @ $6.00/day.	$ 1,092.00	
Airways 4WD Blazer:		
2 May - 31 Aug		
64 days @ $30/day.	1,920.00	
Norcan 4WD Suburan:		
6 Jul - 3Aug		
28 days @ $51.51	1,442.16	
Gabriel 4WD Bronco:		
1 Jun - 28 Aug		
20 days @ $43/day.	860.00	
Ezekiel SBX-11A Radio:		
20-31 May, 1-17, 19 June		
64 days @ $11/day.	704.00	6,018.16
FIXED WING - CP Air, 21 Aug, WITH-VCR		263.80
Telephone Service:		160.00
Report Preparation:		5,675.00
TOTAL GENERAL COSTS:		$ 30,553.61

PHYSICAL WORK (ROAD UPGRADING)

Contractor:	
Yvon Treadeau 16-17 June, 13 hrs @ $55/hr	$ 715.00
Supervision:	271.00
Food $ Accommodation:	81.00
Rental Truck:	
Mark Management Bronco 2 days @ $43/day	86.00
Consulting Engineer:	225.00
Air Travel - VCR-WIH; Return:	470.00
TOTAL PHYSICAL WORK EXPENSES:	$ 1,848.43

GEOLOGICAL SURVEY

Salaries & Wages:	
5 Persons, 89 man days @ $87.44/day	$ 7,782.53
Benefits: @ 20 %	1,556.50
General Costs Apportioned	
89/166 X $30,553.61	16,381.15
TOTAL GEOLOGICAL COSTS	$25,720.18

GEOCHEMICAL SURVEY COSTS

Salaries & Wages:		
5 persons, 31 man days @ $91.70/day		$ 2,842.70
Benefits: @ 20 %		568.54
Consultant Fees & Expenses		
Christian Soux		$ 3,530.85
Assays & Analysis:		
Chemex Laboratories-Vancouver		
Supplies	$ 57.12	
237 Rocks for Cu,Fe,Au @$26.75 ea	6,339.75	
246 Soils for Cu,Fe,Au @$8.64 ea	2,126.09	8,522.96
Trenching Contractors		
Truckways Cat. 20 hrs. @ $135.00/hr	$ 2,700.00	
D-8 Move	346.50	
Pilot Car 4.5 hrs @ $25.00/hr	112.50	
Harold Olsen 25-27 August		
D-6 Cat 10 hrs @ $85.00/hr	850.00	
Repairs (welding)	55.00	4,064.00
General Costs Apportioned:		
31/166 X $30,553.61		$ 5,705.79
TOTAL GEOCHEMICAL SURVEY COSTS		$25,234.84

GEOPHYSICAL SURVEY COSTS

Salaries & Wages:		
5 persons, 17 man days @ $92.64/day		$ 1,574.88
Benefits: @ 20 %		314.98
Rentals:		
Geonics EM 16 (VLF-EM)		
2 May- 31 Aug. 64 days @ $22.16/day	$ 1,418.24	
Shipping Costs	127.48	1,545.72

Airborne EM Survey - Dighem:	$10,000.00
Ground Seismic Survey	
P.E. Walcott, 10 June-24 July	15,554.79
General Costs Apportioned:	
17/166 X $30,393.61	3,112.60
TOTAL GEOPHYSICAL SURVEY COSTS	$32,102.97

DRILLING

Salaries & wages	
5 persons, 29 man days @ $93.68/day	$ 2,716.72
Benefits @ 20%	543.34
Drilling Contractor	
Mid-Night Sun 576' @ $34.63/ft.	20,013.60
Core Assays	
Bondar-Clegg	
192 samples for Ag,Au,Cu,Pb,Zn,Sn,W @ $29.45 ea	5,654.40
General Costs Apportioned	
29/166 X $30,553.61	5,337.68
Total Drilling	$34,265.74

TOTAL COSTS

PHYSICAL WORK:	1,848.43
GEOLOGICAL SURVEY:	25,720.18
GEOCHEMICAL SURVEY:	25,234.84
GEOPHYSICAL SURVEY:	32,102.97
DRILLING:	34,265.74
TOTAL COSTS	$119,172.16

9.0 APPENDIX A

Descriptive Statistics

VARIABLE	MEAN	STD.DEVIATION	VARIANCE	STD ERROR OF MEAN	COEFF OF VARIATION
COPPER	41.2479 PPM	29.73210	883.996	1.92725	72.0814
IRON	2.53213 %	1.19473	1.42738	7.744-02	47.1828
GOLD	6.7016 PPB	11.57180	133.906	0.750087	172.6700

Correlation Matrix

COPPER	1.000000		
IRON	-0.079444	1.000000	
GOLD	0.705469	-0.067333	1.000000
	COPPER	IRON	GOLD

BAR GRAPH FOR IRON

AT LEAST 0.2000 BUT NOT OVER:	FREQ.	%	0 5 10 15 20
0.9333	18	7.6	IXXXXXXXXXXXXXX
1.6666	17	7.1	IXXXXXXXXXXXXX
2.4000	72	30.3	IXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.1333	97	40.8	IXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
3.8666	18	7.6	IXXXXXXXXXXXXXX
4.6000	9	3.8	IXXXXXXX
5.3333	1	0.4	IX
6.0666	2	0.8	IXX
6.8000	0	0.0	I
7.5333	1	0.4	IX
8.2666	1	0.4	IX
9.0000	1	0.4	IX
9.7333	0	0.0	I
10.4667	0	0.0	I
11.2000	1	0.4	IX
TOTAL	238	100.0%	0 5 10 15 20

BAR GRAPH FOR COPPER

AT LEAST 3.0000 BUT NOT OVER:	FREQ.	%	0 5 10 15 20 25 30 35 40
18.4500	15	6.30	IXXXXXX
33.9000	86	36.10	IXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
49.3500	88	37.00	IXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
64.8000	26	10.90	IXXXXXXXXXXX
80.2500	11	4.60	IXXXXX
95.7000	4	1.70	IXX
111.1500	2	0.80	IX
126.6000	1	0.40	IX
142.0500	1	0.40	IX
157.5000	1	0.40	IX
172.9500	1	0.40	IX
188.4000	0	0.00	I
203.8500	0	0.00	I
219.3000	0	0.00	I
234.7500	1	0.40	IX
250.2000	0	0.00	I
265.6500	0	0.00	I
281.1000	0	0.00	I
296.5500	0	0.00	I
312.0000	1	0.40	IX
TOTAL	238	100.0%	0 10 20 30 40

P E R R O N G O L D M I N E S L T D.

REPORT ON THE ROTARY DRILLING PROGRAMME AT ELDORADO CREEK ATLIN MINING DIVISION, B.C. NTS 104 N/5E. (6W, AND 12E)

BY

R.A. GONZALEZ, M.Sc., F.G.A.C.

NOVEMBER, 1984

PLACER LEASE NUMBER	Anniversary Date
PL 2062	NOVEMBER, 13

LOCATION: 59° 29' NORTH LATITUDE-133°32' WEST LONGITUDE

OPERATOR: MARK MANAGEMENT LTD.

CONSULTANT: ARCHEAN ENGINEERING LIMITED.

PROJECT GEOLOGIST: COLMAN WONG

REPORT ON THE ROTARY DRILLING PROGRAMME AT ELDORADO CREEK ATLIN MINING DIVISION, B.C. NTS 104 N/5E. 6W, AND 12E

SUMMARY

A rotary drilling programme was conducted on Placer Lease 2062 located at Eldorado Creek. This programme cosisted of 576 feet of overburden drilling in 5 holes. The purpose of this drilling was to test the placer potential in a previously untested area. The results of this programme outlined an area of sub-economic placer bearing gravels.

172.8m

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FIGURES

TABLES

1.0 INTRODUCTION

The PL 2062 Placer Lease is located at Eldorado Creek in the historic Atlin Placer Gold Mining Camp of northwestern British Columbia (Figure 1). The lease is located along Eldorado Creek near the junction with McKee Creek. This lease covers an area which has had a long history of placer gold production. The property is owned by Messrs. J. Harvey and H. Evenden and held under option by Perron Gold Mines Ltd. of Vancouver, B.C.

Previous exploration work near the property included a 600 foot adit driven into the north bank of McKee Creek in 1940-41 by placer miners to exploit the gravels, a sampling programme by Cominco Ltd. in late 1941, and a percussion drilling programme by Dupont of Canada Exploration Ltd. in 1977. Samples collected by Cominco from a quartz vein zone returned gold values of up to 10 gm per tonne (0.36 ounces per ton). In 1983, a small geologic mapping and rock geochemistry programme was carried out over the main placer working along McKee Creek to test the placer and lode potential of the property. The success of this cursory programme prompted a further systematic exploration effort. In 1984, a detailed seismic survey outlined a steep sided canyon, along Eldorado Creek, filled with untested gravels; these gravels were sampled by rotary drilling. The work programme, the McKee Project, was supervised by Mr. C. Wong of Mark Management Ltd. under the guidance of A.G. Troup, P.Eng., of Archean Engineering Ltd. The results of that drill programme are now summarized.

1.1 LOCATION AND ACCESS

The Eldorado Creek leases represent a placer gold prospect staked over one of the significant gold producing drainages within the Atlin Placer Gold Camp. This camp covers an area of approximately 380 square kilometres of mountainous country, in the Atlin Mining Division in northwestern British Columbia (see Figure 1). The placer area is south and east of the town of Atlin which is centrally located on the east side of Atlin Lake. The area trends northeastward and is approximately 26 km long and up to 20 km wide. Most of the area is drained to the west by Fourth of July Creek in the north, Pine and Spruce Creeks in the central portion, and McKee and Eldorado Creeks in the south. The eastern portion of the district is drained by the north flowing Snake, Otter, and Wright Creeks and the east and south flowing Feather and Slate Creeks.

Atlin is, and has been since the early days of the Klondike Gold Rush of 1897 and 1898, the principal population and supply centre of northwestern British Columbia. It is approximately 150 kilometres south of Whitehorse, the capital and principal Yukon city. Atlin, since 1949, has had a road connecting it with Jakes Corners on the Alaska Highway in the Yukon Territory. This road is open all year except for short periods when some of the hills are iced

over. From Jakes Corners another road goes to Carcross, Y.T. The Alaska Highway extends from Dawson Creek, B.C., to Whitehorse, Y.T., and beyond to Alaska and is open all year. Both Carcross and Whitehorse are on the White Pass and Yukon Railway line, which extends from Skagway, U.S.A. to Whitehorse; however, at present the railroad is not in service. Skagway is the terminus for several coastal lines; and, until the closure of the rail line in late 1982, most heavy freight to the area went by boat to Skagway, thence by train to Carcross and thence by truck to Atlin. Now that the White Pass and Yukon Railway is closed all heavy cargo must be transported by truck from Skagway or from the east along the Alaska Highway. For passengers traveling to the area, it is best to fly to Whitehorse and go from there to Atlin by plane, car, or bus. Whitehorse is served by scheduled flights from both Vancouver and Edmonton. Planes for charter trips are available at Atlin, Whitehorse, and Lower Post on the Dease River. Helicopters are available in Atlin on a year round basis.

The Eldorado Creek leases are located in the southwestern portion of the placer district approximately 14 km southeast of Atlin. It is located at the corners of N.T.S. Quadrangles 104N/5E, 6W, and 12E. Terrestial coordinates for the centre of the claim group are as follows:

59° 29' North Latitude
133° 32' West Longitude.

Within the area roads extend to all the placer creeks. The roads are in good condition except in the eastern part of the area where the roads are considered to be low-maintenance summer roads. Road access to the property is provided by the gravel-surfaced Atlin to O'Donnel River road. A rough four-wheel drive road leaves this road immediately south of the McKee Creek Bridge and provides access to that portion of the property along lower McKee and Eldorado Creeks (Figures 2).

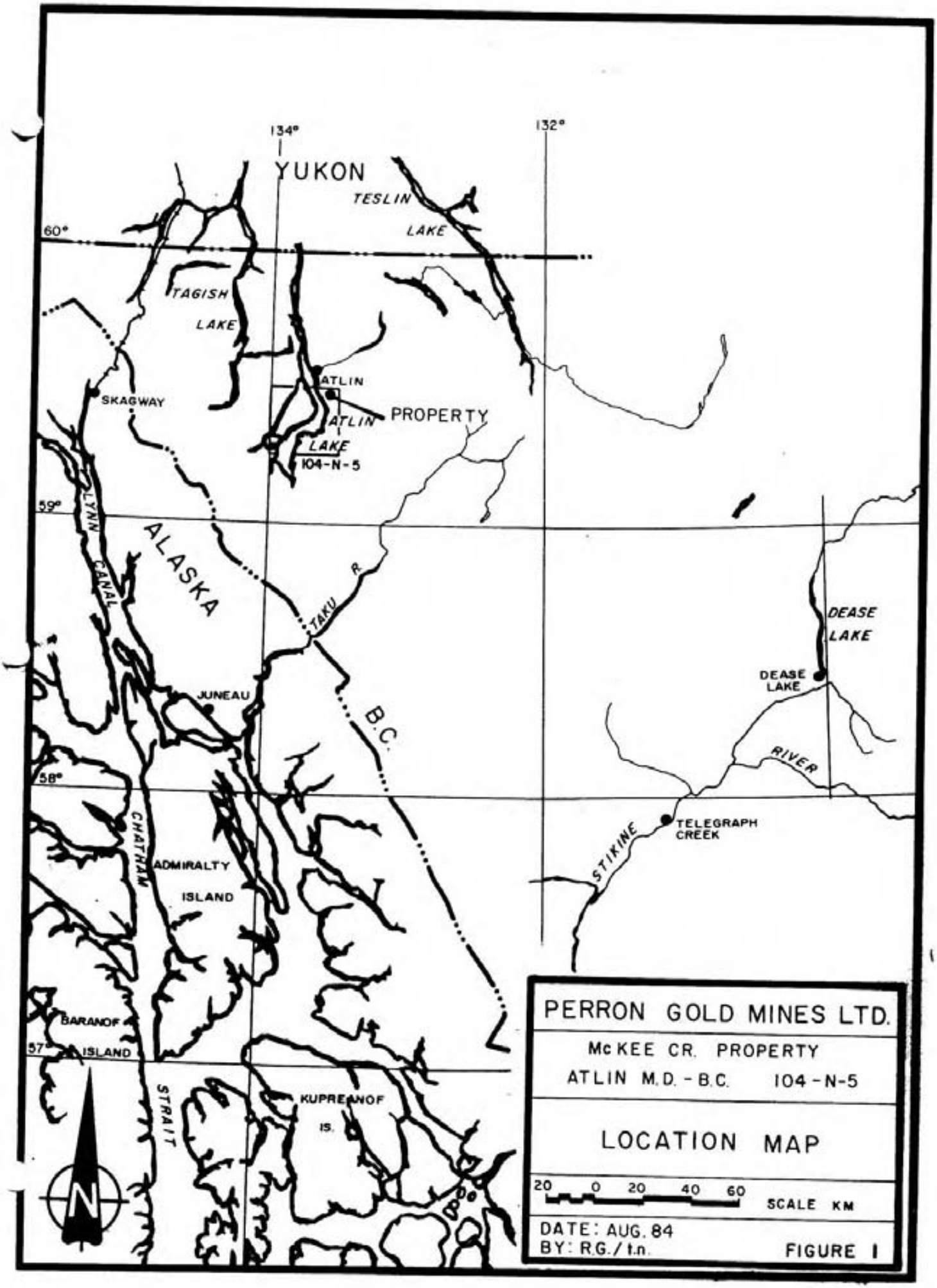
1.2 PHYSIOGRAPHY, VEGETATION, AND CLIMATE

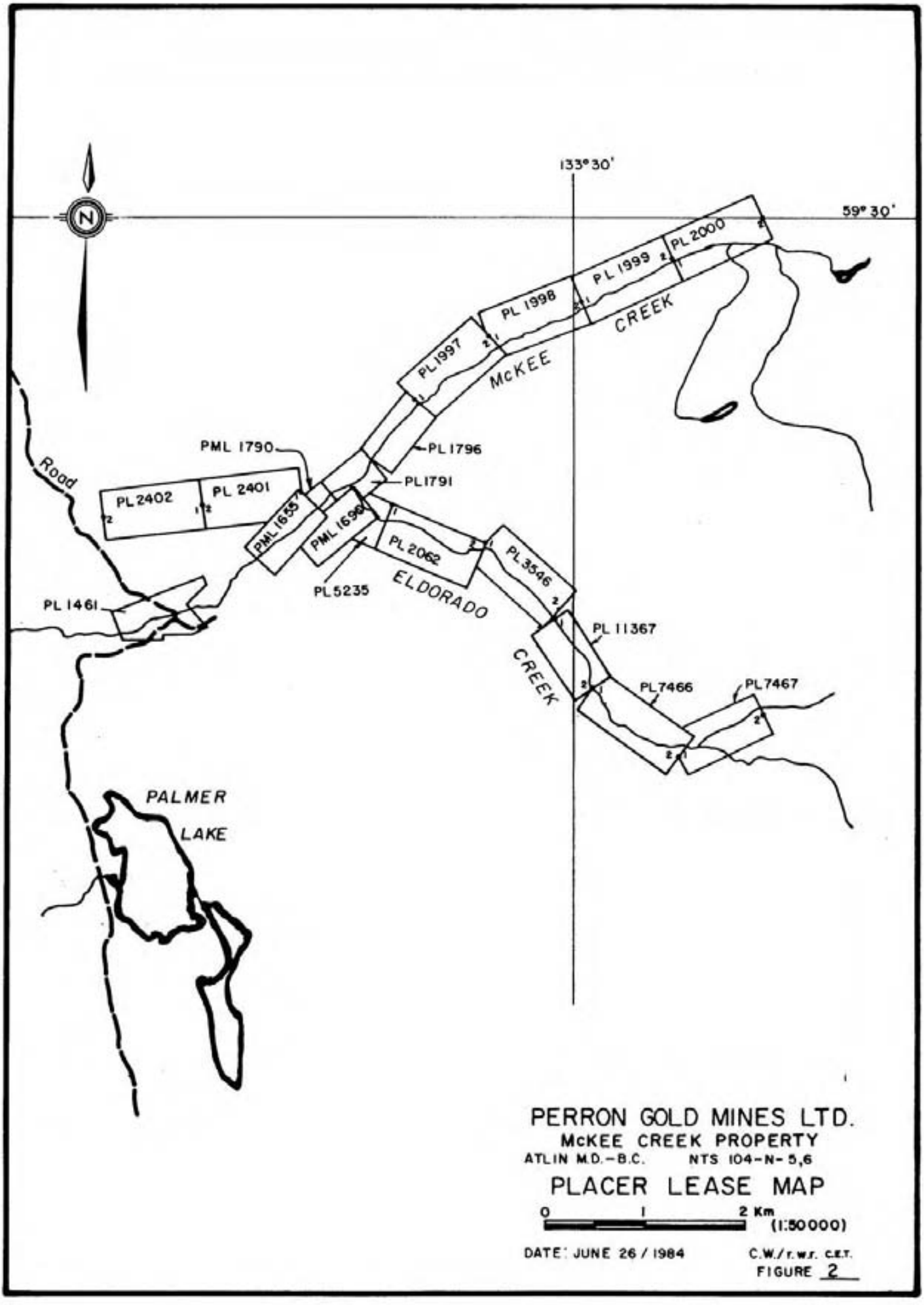
The Atlin area is located just east of the Coast Mountains on the Teslin Plateau. The town of Atlin lies on the east shore of Atlin Lake, the largest natural lake in British Columbia, at an elevation of 670 m (2,200 feet). The topography is moderately rugged with slopes of up to 15° rising from the McKee Creek Valley floor at an elevation of 914 m (3,000 feet) to the peaks of the Johnson Range at elevations well over 1524 m (5,000 feet). Glaciers occupied present day Atlin Lake and extended up many of the creeks. This extensive ice sheet acted as a dam against which were deposited thick layers of glaciofluvial till. Along McKee Creek, prominent 60 m (200 foot) cliffs of cross-bedded glaciofluvial material are common.

The tree line is at approximately 1370 m (4,500 feet) on north facing slopes and 1525 m (5,000 feet) on south facing slopes. Below

1370 m (4,500 feet), the valleys are forested with lodgepole pine, black spruce, aspen and dwarf birch. Mountain alder and willow grow near streams with stunted buckbrush covering the hills above tree line.

Atlin enjoys a pleasant summer climate with temperatures averaging 20°C and little precipitation. Winter temperatures average -15°C in January with moderate snowfall. Total annual precipitation averages 279.4 millimetres of moisture. "Winter" conditions can be expected from October to April.


134°
132°
YUKON
TESLIN
LAKE
60°
TAGISH
LAKE
ATLIN
SKAGWAY
ATLIN
PROPERTY
ATLIN
LAKE
104-N-5
59°
LYNN
CANAL
ALASKA
TAKU
R
DEASE
LAKE
DEASE
LAKE
JUNEAU
B.C.
RIVER
58°
CHATHAM
ADMIRALTY
ISLAND
TELEGRAPH
CREEK
STIKINE
BARANOF
ISLAND
57°
STRAIT
KUPREANOF
IS.
N
PERRON GOLD MINES LTD.
McKEE CR. PROPERTY
ATLIN M.D. - B.C. 104 - N-5
LOCATION MAP
20 0 20 40 60
SCALE KM
DATE: AUG. 84
BY: R.G./t.n.
FIGURE 1



PERRON GOLD MINES LTD.

McKEE CREEK PROPERTY

ATLIN M.D. – B.C. NTS 104-N-5,6

PLACER LEASE MAP

0 1 2 Km (1:50000)

DATE: JUNE 26 / 1984 C.W./r.w.r. C.E.T.

FIGURE 2

1.3 CLAIM INFORMATION

The Eldorado Creek leases are located in the Atlin Mining Division and consists of seventeen contiguous placer leases. Claim information is listed in Table 1, below:

TABLE 1

CLAIM STATUS FOR THE ELDORADO CREEK LEASES (MCKEE CREEK PROPERTY)

Claim Name	Anniversary Date
PML 1655	OCTOBER, 23
PLM 1690	OCTOBER, 23
PML 1790	OCTOBER, 23
PL 1791	OCTOBER, 23
PL 1796	OCTOBER, 23
PL 1997	JANUARY, 2
PL 1998	JANUARY, 2
PL 1999	SEPTEMBER, 14
PL 2000	NOVEMBER, 28
PL 2062	NOVEMBER, 13
PL 2401	OCTOBER, 23
PL 2402	OCTOBER, 23
PL 3546	JUNE, 30
PL 5235	NOVEMBER, 23
PL 7466	NOVEMBER, 19
PL 7467	NOVEMBER, 24
PL 11367	DECEMBER, 30

1.4 HISTORY

Before 1898 very little was known of the Atlin country beyond the fact that it contained fur, big game, and several large lakes, the largest of which was called "Atlin," meaning "Big Water," by the Tlinkit-Tagish Indians. According to the most authenticated sources, B.C. Dept. of Mines, Annual Reports for 1900, 1904, 1932, and 1936, gold was first discovered on Pine Creek about July, 1897, by a man named Miller while driving cattle into Dawson and the Klondike Gold Fields. The information, together with a rough map, was passed on to Miller's brother, Fritz, in Juneau, who together with Kenny McLaren, a Canadian prospector named Hans Gunderson, and another, were on their way to the Klondike. These men decided to investigate and with the aid of the map were able to located the creek with little

difficulty and staked the first claims about July 8, 1898. Public information concerning the new strike reached Alaskan ports on August 5th, and Victoria, B.C. on August 13th, 1898, and resulted in a rush to the area. The first workings were on Pine Creek and by the end of 1898, more than 3,000 people were camped in the Atlin area. Only eight creeks, Spruce, Pine, Birch, Boulder, Ruby, Otter, Wright and McKee, have been important producers in the Atlin camp, although gold has been produced along 21 other creeks including Dominion, Eldorado, Feather, Fox, Rose, Slate, Snake, and O'Donnel River.

Uninterrupted placer mining in the Atlin camp has produced an estimated one million ounces of gold since 1898. Spruce Creek, the richest stream in the camp, has yielded more than 40 per cent of this gold. The pay streak along Spruce Creek is over 5 kilometres long, approximately 2 m thick, and up to 60 m wide. Near the southern end of the pay streak, the gravels are reported to have averaged about 80 gm of gold to the cubic metre along a 600 m section of the creek. Table II shows the gold production from the main creeks for the period up to 1946, the last year for which individual creek recoveries were obtained.

Since the late 70's interest and activity in the placer deposits has increase with the increase in the price of gold. Today the area is swarming with activity, and for five months a year the area is alive with small and medium-sized operations re-working or re-examining the area.

Gold-bearing quartz veins were first discovered in the Atlin area in 1899 and by 1905 most of the known showings had been discovered. Although the original showings have been repeatedly worked and re-examined there is no record of regional exploration for lode mineralization since 1905. In 1981, Yukon Revenue Mines Ltd. acquired and re-examined the old Lakeview property. Work done by Yukon Revenue showed low-grade gold values over an extensive but delicate stockwork of carbonatized and silicified andesite adjacent to a serpentinite intrusive.

The discovery by Yukon Revenue Mines Ltd. and the similarity of geology near major placer gold producing streams prompted Perron Gold Mines Ltd. to option the Eldorado Creek Leases.

TABLE 2 (from Holland, 1950 and Black, 1953)

GOLD RECOVERY FROM PRODUCTIVE CREEKS, ATLIN AREA, 1898-1946.

STREAM NAME	OUNCES OF GOLD PRODUCED
Spruce Creek	262,603
Pine Creek	138,144
Boulder Creek	67,811
Ruby Creek	55,272
McKee Creek	46,953
Otter Creek	20,113
Wright Creek	14,729
Birch Creek	12,898
All Others (21 creeks)	15,624
TOTAL PRODUCTION	**634,147**

Note: B.C. Dept. of Mines records show that for this same period 705,229 ounces of gold was sold from the Atlin area suggesting that not all gold production was reported.

2.0 GEOLOGY

2.1 REGIONAL GEOLOGY

Geologic mapping of this area was undertaken in 1951-55 by J.D. Aitken of the Geological Survey of Canada (GSC) and compiled as Map 1082A (a portion of which is reproduced on Figure 3). In 1966-68, J.W.H. Monger, also of the GSC, selectively mapped the Atlin area and published his findings in GSC Paper 74-47.

The Atlin region is located in a eugeosynclinal area composed of three distinct northwest striking tectonic belts; the St. Elias and Insular Belt, the Coast and Cascades Belt, and the Intermontane Belt. The rocks of the area belong to the Atlin Terrane, which represents an independent tectonic entity of the oceanic sequence of the Intermontane Belt in the Canadian Cordillera. The Atlin Terrane consists of upper Paleozoic age radiolarian cherts, pelites, carbonates, volcanics, and ultramafics. These rocks are intruded by Mesozoic granite, alaskite, and quartz monzonite. The youngest rocks of the Atlin Terrane are composed of Tertiary and Quaternary volcanics. Till deposited by receding Pleistocene glaciers extensively covers the valleys.

The Atlin Terrane is bounded on the northeast by a northwest striking vertical fault and on the southwest by a northwest striking reverse fault. Structurally, the terrain is characterized by compressional deformation which is similar in style and trend to the southwest bounding faults (Monger, 1975). Minor fold axes generally strike northwest or trend southwest.

Recent work has demonstrated that there is an important genetic relationship between the ultramafic rocks and the location for both placer and lode-gold deposits. The Pennsylvanian and Permian ultramafics are part of the Atlin Intrusions and consist of peridotite and serpentinite. The rock is usually dark green to dull waxy green in colour and locally talcose. Alteration of the ultramafic is extensive. Most of the rocks have been subject to varying intensities of serpentinization or carbonatization. The carbonatized ultramafic is characterized by rusty-orange brown weathering and its recessive nature. Within the upper portion of the carbonatized ultramafics, and often extending a considerable distance into chert beds, are located all of the known lode-gold showings.

2.2 PROPERTY GEOLOGY

Outcrop exposure accounts for less than 5 per cent of the surface area on the properties. Felsenmeer is present in areas of no outcrop and is assumed to be close to outcrop. Till covers the valleys below 1370 m (4,500 feet) elevation, and tailings from old placer workings extensively cover the lower portions of McKee and Eldorado Creeks.

The property is underlain by Cache Creek Group metasediments and volcanics intruded by Pennsylvanian and Permian ultramafics and a minor diorite dike (Figure 4).

The Cache Creek Group rocks are of Pennsylvanian and Permian age and consist of limestone, argillite, chert, and andesite. Monger (1975) classifies the limestone, argillite, and chert as forming part of the Kedahda Formation and the andesite as part of the Nakina Formation. He states that the Nakina Formation volcanics (basalts) "are conformable with bedded chert of the Kedahda Formation, the diabase locally intrudes it, and the lithic tuff is gradational with it". The implication is that both the Nakina Formation and the Kedahda Formation occupy the same time but that the Nakina event is slightly older.

Detailed geologic mapping (Figure 3) along Eldorado Creek suggests, however, that the stratigraphic sequence is reverse to that proposed by Monger. Ash-grey, massive limestone forms the lowest unit seen on the property and is overlain by chert, typically dark grey to black in colour and locally interlayered with argillite containing beds of graphite. Ultramafics are believed to intrude the sedimentary package and locally may represent minor flows. Andesitic extrusives, typically drab grey-green in colour, siliceous, sometimes weakly carbonatized, and containing up to 1% primary pyrite, appear to be the youngest unit.

Because of limited exposures structural features are probably more complex than presently believed. The principal structural feature is a southwest plunging syncline with its axis parallel to and presently occupied by McKee Creek. The plunge of the syncline is steeper than the gradient of the creek. Small gentle anticlines flank either side of the syncline, and ultramafic intrusives are only seen along the axis of the fold structures. A shear zone, trending $030^{o}/40^{o}$, was traced for 700 m up McKee Creek beginning just below the McKee-Eldorado Creek confluence; this shear appears to trace the synclinal axis.

Gold bearing gravels are confined to the river channels presently occupied by McKee and Eldorado Creeks. The origin of the gold mineralization, in McKee Creek, appears to be confined to the hanging wall portion of a carbonatized ultramafics located immediately south of the confluence of McKee and Eldorado Creeks. Gold in the gravels of Eldorado Creek probably orginated from an ultramafic immediately up stream of the area drilled.

3.0 ROTARY DRILLING

3.1 DRILL LOGS

ROTARY DRILL LOGS ELDORADO CREEK

PROJECT:	MCKEE CREEK-PGM	DATE:	AUGUST, 1984
GRID REFERENCE:	59°29'N 133°32'W	HOLE NUMBER:	RDH 84-1
BIT SIZE:	5 1/8"	TOTAL LENGTH:	118 FEET
CASING SIZE:	6" I.D.	BEARING:	000°
LOGGED BY:	S. LAU	INCLINATION:	-90°.
DRILL BY:	MIDNIGHT SUN	OVERBURDEN:	107 FEET

1' = 0.305 m

FOOTAGE	% RECOVERY	AU VALUES MG/M^3	DESCRIPTION
0'-10'	115%		15% CLAY. BROWN DRY SAMPLE. SUBANGULAR LARGE PEBBLES (UP TO 2.5 CM) CHERT AND ANDESITE
10'-36'	150%		50% CLAY. DK. BROWN DAMP SAMPLE. SUBANGULAR LARGE PEBBLES (UP TO 2.5 CM) OF CHERT, ANDESITE, SERPENTINIZED ULTRAMAFICS. POSSIBLE CREEK BED WITH SAND AND SILT DEPOSITED IN A ROCKY BOTTOM.
36'-56'	180%		80% CLAY. DARK BROWN WET SAMPLE. MINOR COARSE SAND GRAINS (0.1 TO 0.3 CM) OF CHERT.
56'-74'	150%		30% CLAY. LT. GREY BROWN DRY SAMPLE. SUBROUNDED SMALL PEBBLES (1.5 CM) OF CHERT AND ANDESITE. CLUMPS OF CLAY PRESENT UP TO 2.0 CM IN DIAMETER.
74'-80'	300%		10% CLAY. LT. GRAY-BROWN DRY SAMPLE. COARSE SAND SIZE TO SMALL PEBBLES OF SUBROUNDED TO SUBANGULAR CHERT, SERP. ULTRAMAFICS, AND ANDESITE.
80'-82'	100%		5% CLAY. BROWN WET SAMPLE. ANGULAR MEDIUM-SIZED PEBBLES OF BLACK TO GRAY TO RED CHERT AND SILICIFIED ANDESITE.
82'-84'	125%		80% CLAY. BROWN WET SAMPLE. SUBANGULAR MEDIUM TO COARSE SAND SIZED GRAINS OF BLACK CHERT AND SERP.

			ULTRAMAFICS.
84'-88'	140%	48	5% CLAY. LT. GRAY-BROWN SLIGHTLY DAMP SAMPLE. SUBROUNDED TO SUBANGULAR COARSE SAND TO SMALL PEBBLES OF BLACK TO GRAY TO RED CHERT AND SILICEOUS ULTRAMAFICS
88'-92'	140%	2	20% CLAY. LT. BROWN VERY DAMP SAMPLE. SUBANGULAR TO ANGULAR COARSE SAND AND SMALL PEBBLES OF BLACK TO GRAY TO RED CHERT AND SILICEOUS CHLORITIZED ANDESITE.
92'-96'	150%	1	10% CLAY. LT. GRAY-BROWN DAMP SAMPLE. SUBANGULAR TO ANGULAR, SMALL TO MEDIUM PEBBLE-SIZED FRAGMENTS OF SILICEOUS CHLORITIZED ANDESITE AND BLACK CHERT.
96'-98'	140%	6	5% CLAY. LT. BROWN DAMP SAMPLE. SUBANGULAR SMALL TO MEDIUM-SIZED PEBBLES OF BLACK TO RED CHERT, SERP. ULTRAMAFICS, AND ANDESITE.
98'-100'	110%	6	10% CLAY. BROWN DAMP SAMPLE. SUBANGULAR SMALL TO MEDIUM-SIZED PEBBLES OF BLACK TO RED CHERT, SERP. ULTRAMAFICS AND ANDESITE.
100'-102'	130%	2	20% CLAY. DARK GRAY DAMP SAMPLE. SUBROUNDED COARSE SAND, MEDIUM-SIZED PEBBLES OF RED TO GRAY CHERT, MEDIUM-GRAINED ANDESITE AND MEDIUM-GRAINED SILICEOUS PYRITE-BEARING SERP. ULTRAMAFICS AND MINOR DIORITE.
102'-106'	95%	3 (2')	10% CLAY. LT. GRAY DRY SAMPLE. ANGULAR TO SUBANGULAR COARSE- TO 48 (2') MEDIUM-SIZED PEBBLES OF SILICEOUS PYRITE-BEARING LIMY ANDESITE CONTAINING CLASTS OF BLACK CHERT AND MINOR RED TO GRAY CHERT (85% ANDESITE, 15% CHERT).
106'-108'	100%	50	30% CLAY. LT. GRAY-BROWN WET SAMPLE. ANGULAR TO SUBANGULAR SMALL TO LARGE PEBBLE-SIZED FRAGMENTS OF BLACK TO GRAY SILICEOUS PYRITE BEARING LIMY ANDESITE (90% CHERT, 10% ANDESITE). BEDROCK OF CHERT AT 107'.
108'-118'	70%		BEDROCK. DIRTY LIMESTONE

PROJECT:	MCKEE CREEK-PGM	DATE:	AUGUST 1984
GRID REFERENCE:	59°29'N 133°32'W	HOLE NUMBER:	RDH 84-2
BIT SIZE:	5 1/8"	TOTAL LENGTH:	100 FEET
CASING SIZE:	6" I.D.	BEARING:	000°
LOGGED BY:	S. LAU	INCLINATION:	-90°.
DRILL BY:	MIDNIGHT SUN	OVERBURDEN:	58 FEET

FOOTAGE	% RECOVERY	AU VALUES MG/M^3	DESCRIPTION
0'-2'	100%		ROAD GRAVEL. LARGE ANGULAR PEBBLES OF LOCAL SOURCE (CHERT, ANDESITE, AND SERP. ULTRAMAFICS.
2'-14'	110%		25% CLAY. SUBANGULAR MEDIUM-SIZED PEBBLES TO MEDIUM SAND-SIZED GRAINS OF LOCAL SOURCE.
14'-18'	80%		50% CLAY. DARK-BROWN WET SAMPLE. SUBROUNDED MEDIUM-SIZED PEBBLES OF CHERT, ANDESITE, AND TALC ULTRAMAFICS.
18'-44'	300%	12 (2')	5% CLAY. GRAY-BROWN WET SAMPLE. MEDIUM SAND SIZE TO LARGE PEBBLES OF SUBROUNDED CHERT, ANDESITE AND ULTRAMAFIC (TALC + SERPENTINITE). BOTTOM OF SECTION HAS HIGHER CLAY FRACTION. CLAY CONTENT DECREASES UPWARDS WITH INCREASE IN GRAIN SIZE. TOP TEN FOOT SECTION MUCH SANDIER THAN BOTTOM.
44'-58'	90%	2 (2')	50% CLAY. DARK-GRAYISH BROWN WET SAMPLE. LARGE, SUBANGULAR PEBBLES OF RED- TO GRAY- TO BLACK CHERT, ANDESITE, AND TALC ULTRAMAFICS.
58'-68'	100%	2 (2')	WEATHERED TALC ULTRAMAFIC HORIZON.
68'-100'	95%	32 (4') 8(2') 3 (2') 2 (4')	BEDROCK. TALC ULTRAMAFIC WITH QUARTZ STRINGERS. MINOR PYRITE CUBES (LESS THAN 0.2 CM).

PROJECT:	**MCKEE CREEK-PGM**	**DATE:**	**AUGUST 1984**
GRID REFERENCE:	**59°29'N 133°32'W**	**HOLE NUMBER:**	**RDH 84-3**
BIT SIZE:	**5 1/8"**	**TOTAL LENGTH:**	**106 FEET**
CASING SIZE:	**6" I.D.**	**BEARING:**	**045°**
LOGGED BY:	**S. LAU**	**INCLINATION:**	**-67.5°.**
DRILL BY:	**MIDNIGHT SUN**	**OVERBURDEN:**	**92 FEET**

FOOTAGE	% RECOVERY	AU VALUES MG/M^3	DESCRIPTION
0'-8'	95%		20% CLAY, LT-BROWN DAMP SAMPLE. SUBROUNDED FRAGMENTS OF LOCAL SOURCE.
8'-18'	150%		65% CLAY. LT-BROWN WET SAMPLE. MEDIUM- TO SMALL-SIZED PEBBLES OF ANGULAR TO SUBANGULAR CHERT AND ANDESITE.
18'-26'	110%		15% CLAY. DARK-BROWN DAMP SAMPLE. MEDIUM-SAND SIZED TO MEDIUM- PEBBLE SIZED, SUBROUNDED TO SUBANGULAR FRAGMENTS OF LOCAL SOURCE.
26'-40'	180%	16 (2')	45% CLAY. DARK-BROWN WET SAMPLE. SUBROUNDED LARGE-PEBBLE TO FINE-SAND SIZED GRAINS OF LOCAL SOURCE. UNSORTED.
40'-60'	120%		85% CLAY. DARK-BROWN WET SAMPLE. MEDIUM- TO COARSE-SAND SIZE GRAINS OF LOCAL SOURCE.
60'-66'	95%		40% CLAY. DARK-BROWN WET SAMPLE. SUBANGULAR SMALL PEBBLE-SIZED FRAGMENTS OF LOCAL SOURCE.
66'-70'	110%		5% CLAY. DAMP, SUBANGULAR LARGE PEBBLE-SIZED GRAVELS OF LOCAL SOURCE.
70'-92'	100%	96 (4') 1 (2')	50% CLAY. SUBANGULAR- TO SUBROUNDED-LARGE PEBBLES OF LOCAL SOURCE ROCK. DARK-BROWN WET SAMPLE. BOTTOM 4' OF SECTION CONSISTS OF LARGE SAND-SIZED TO SMALL PEBBLE-SIZED FRAGMENTS. GRAIN SIZE INCREASES UPWARDS ALONG SECTION.
92'-106'	100%		BEDROCK. CARBONATIZED ULTRAMAFIC WITH QUARTZ STRINGERS.

PROJECT:	**MCKEE CREEK-PGM**	**DATE:**	**AUGUST 1984**
GRID REFERENCE:	**59°29'N 133°32'W**	**HOLE NUMBER:**	**RDH 84-4**
BIT SIZE:	**5 1/8"**	**TOTAL LENGTH:**	**132 FEET**
CASING SIZE:	**6" I.D.**	**BEARING:**	**000°**
LOGGED BY:	**S. LAU**	**INCLINATION:**	**-90°.**
DRILL BY:	**MIDNIGHT SUN**	**OVERBURDEN:**	**103 FEET**

FOOTAGE	% RECOVERY	AU VALUES MG/M^3	DESCRIPTION
0'-32'	90%		35-40% CLAY. BROWN WET SAMPLE. UNSORTED SUBROUNDED- TO SUBANGULAR-FRAGMENTS OF LOCAL SOURCE.
32'-64'	120%		80% CLAY. BROWN VERY WET SAMPLE. MEDIUM- TO COARSE SAND- SIZED GRAINS WITH MINOR SMALL, SUBROUNDED PEBBLES OF QUARTZ.
64'-86'	140%		25% CLAY. BROWN DAMP SAMPLE. MEDIUM- TO LARGE- SUBANGULAR TO SUBROUNDED PEBBLES OF BLACK TO GRAY TO RED CHERT, ANDESITE, AND SERPENTINIZED ULTRAMAFICS.
86'-100'	100%	32 (2')	80% CLAY. LT.-BROWN WET SAMPLE. MEDIUM-SIZED SUBANGULAR TO SUBROUNDED PEBBLES OF BLACK TO GRAY TO RED CHERT AND ANDESITE. ANGULARITY INCREASES UPWARDS.
100'-103'	110%	384 (2')	80% CLAY. LT. GRAYISH-SILVER COLOURED WET SAMPLE. WEATHERED TALC ULTRAMAFIC HORIZON WITH MINOR SMALL PEBBLES OF SUBROUNDED RED CHERT.
103'132'	80%	350 (2')	BEDROCK. TALC ULTRAMAFIC WITH CALCITE AND QUARTZ STRINGERS.

PROJECT:	**MCKEE CREEK-PGM**	**DATE:**	**AUGUST 1984**
GRID REFERENCE:	**59°29'N 133°32'W**	**HOLE NUMBER:**	**RDH 84-5**
BIT SIZE:	**5 1/8"**	**TOTAL LENGTH:**	**120 FEET**
CASING SIZE:	**6" I.D.**	**BEARING:**	**000°**
LOGGED BY:	**S. LAU**	**INCLINATION:**	**-90°.**
DRILL BY:	**MIDNIGHT SUN**	**OVERBURDEN:**	**101 FEET**

FOOTAGE	% RECOVERY	AU VALUES MG/M^3	DESCRIPTION
0'-2'	40%		HUMUS
2'-12'	110%		5% CLAY. BROWN, DRY SAMPLE. LARGE PEBBLE-SIZED SUBANGULAR TO ANGULAR FRAGMENTS OF LOCAL SOURCE.
12'-20'	130%		30% CLAY. BROWN, DAMP SAMPLE. MEDIUM TO LARGE PEBBLE-SIZED, SUBANGULAR FRAGMENTS OF CHERT AND ANDESITE.
20'-23'	110%		85% CLAY. BROWN, WET SAMPLE. MEDIUM PEBBLE-SIZED SUBANGULAR CHERT AND ANDESITE.
23'-41'	125%		25-30% CLAY. BROWN, DAMP SAMPLE. MEDIUM- TO LARGE-PEBBLES OF SUBANGULAR CHERT, ANDESITE, AND MINOR SERPENTINIZED ULTRAMAFICS.
41'-48'	120%		60% CLAY. BROWN VERY-DAMP SAMPLE. MEDIUM- TO LARGE-PEBBLES OF ANGULAR- TO SUBANGULAR-CHERT, ANDESITE, AND SERPENTINIZED ULTRAMAFICS.
48'-58'	80%		95% CLAY. DARK-BROWN, WET SAMPLE. MINOR LARGE, SUBANGULAR- TO ANGULAR PEBBLES OF ANDESITE AND CHERT.
58'-62'	120%		15% CLAY. LT.-BROWN, DAMP SAMPLE. SUBANGULAR- TO ANGULAR- MEDIUM PEBBLE-SI FRAGMENT OF LOCAL SOURCE.
62'-68'	130%		65% CLAY. GRAY BROWN VERY-DAMP SAMPLE. MEDIUM TO COARSE SAND-SIZED GRAINS WITH SMALL PEBBLES OF SUBANGULAR BLACK TO RED CHERT AND SILICIFIED ANDESITE CONTAINING CHERT CLASTS.

68'-74'	250%		30% CLAY. BROWN, DAMP SAMPLE. COARSE SAND TO SMALL PEBBLES OF LOCAL SOURCE.
74'-101'	160%	256 (2')	15% CLAY. LT.-BROWN DRY SAMPLE. MEDIUM-SIZED PEBBLES OF SUBANGULAR
		2 (2')	CHERT, ANDESITE, SILICIFED ANDESITE, SERPENTINIZED ULTRAMAFIC, AND CARBONATIZED ULTRAMAFIC.
101'-120'	80%		BEDROCK. TALC ULTRAMAFIC WITH CALCITE AND QUARTZ STRINGERS.

4.0 CONCLUSIONS

Geologic mapping of the properties shows Cache Creek Group rocks to be intruded by ultramafics of the Atlin Intrusions and a Cretaceous(?) diorite dike. The ultramafics are extensively carbonatized and serpentinized; gold tends to concentrate in the sediments immediately above the ultramafic-chert contact.

Placer bearing gravels are spatially related to the ultramafics.

The gold content in the drill holes is sub-economic. Recovered values ranged from 1 mg/m^3 to 460 mg/m^3. In some samples no gold was detected. Most of the gold recovered is present in the -200 to +50 micron size range. The maximum size reported being 800 microns.

The gold values reported for samples corresponding to bedrock material are only for liberated gold (i.e. free gold) and does not indicate the total gold content of bedrock.

Respectfully submitted,

ARCHEAN ENGINEERING LIMITED

R.A. Gonzalez, M.Sc., F.G.A.C.

5.0 REFERENCES

Aitken, J.D., 1960; Geology, Atlin, Cassiar District, British Columbia: Geological Survey of Canada, Map 1082A, Scale 1:253,440.

B.C. Minister of Mines, Annual Reports; 1900, 1904, 1932, and 1936.

Black, J.M., 1953; Report on the Atlin Placer Camp: B.C. Ministry of Energy, Mines and Petroleum Resources, Open File Report, 71p.

Boyle, R.W., 1979; The Geochemistry of Gold and its Deposits: Geological Survey of Canada, Bulletin 380, 584 p.

Carter, N.C., 1983; Summary Report, McKee Creek Mineral Claims: Report dated March 23, 1983.

Fraser, D.C., 1969; Contouring of VLF-EM data: Geophysics, v.34, no.6, p.958-967.

Holland, S.S., 1950; Placer Gold Production of British Columbia: B.C. Ministry of Energy, Mines and Petroleum Resources, Bulletin 28, 89p.

Monger, J.W.H., 1975; Upper Paleozoic Rocks of the Atlin Terrane, Northwestern British Columbia and South-Central Yukon: Geological Survey of Canada, Paper 74-47, 63p. and maps.

Troup, A.G. and Wong, C., 1982; Geochemical, Geological, and Geophysical Report on the Shuksan Property: Engineer's Report.

Troup, A.G. and Wong, C., 1983; Preliminary Geochemical and Geological Report on the McKee Creek Property: Engineer's Report.

6.0 STATEMENT OF PROFESSIONAL QUALIFICATIONS

R.A. GONZALEZ, M.Sc., F.G.A.C.

ACADEMIC

1965	B.Sc. in Geology	The University of New Mexico, U.S.A.
1968	M.Sc. in Geology	The University of New Mexico, U.S.A.

PROFESSIONAL

1983	Archean Engineering Limited	Overseas Manager
1980-1983	Placer Development y Cia. Ltd. (Chile)	Ass't Exploration Manager
1977-1980	Consultant attached to the Geological Survey of Malaysia	Ass't Project Manager on a C.I.D.A. supported mineral exploration survey over Peninsular Malaysia
1975-1977	Province of Manitoba	Resident Geologist for the Manitoba Dept. of Mines.
1971-1975	Giant Mascot Mines Limited	Senior Geologist
1970-1971	New Jersey Zinc (Canada) Ltd.	Exploration Geologist
1968-1970	Anaconda American Brass Ltd.	Research Geologist
1965-1966	Mex-Tex Mining Co.(U.S.A)	Geologist

[redacted]

P E R R O N G O L D M I N E S L T D.

REPORT ON THE BENEFICIATION OF GOLD FROM TEST DRILL HOLES AT ELDORADO CREEK ATLIN MINING DIVISION, B.C. NTS 104 N/5E, 6W, AND 12E

SEPTEMBER 1984

C.L. SOUX, B.Sc.

CLAIMS WORKED

PLACER LEASE NUMBER	ANNIVERSARY DATE
PML1655	October 23
PML1790	October 23
PL 2062	November 13

LOCATION: 59° 29' NORTH LATITUDE-133°32' WEST LONGITUDE

OWNERS: J.R. HARVEY AND H.F. EVENDEN

OPERATOR: PERRON GOLD MINES LTD.

CONSULTANT: C.L. SOUX

BENEFICIATION OF GOLD FROM TEST DRILL HOLES AT ELDORADO CREEK ATLIN MINING DIVISION, B.C. NTS 104 N/5E, 6W, AND 12E

SUMMARY

The property is a road accessible placer gold producer located 14.5 kilometres southeast of Atlin in northwestern British Columbia. This work was carried out to recover and report free gold values from ElDorado Creek drill-hole samples and to assess gold content in McKee Creek tailing dumps.

A chemical assay of sluice box tailings should be carried out to obtain the total gold content for the gold values reported for bedrock material. The possibility of pyrite-gold association should be investiaged. Heavy sands should be analysed to determine economic value of other elements present. Assessment of tailing dumps should use the size of the largest gold particles present to determine the amount of sample to be taken.

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FIGURES

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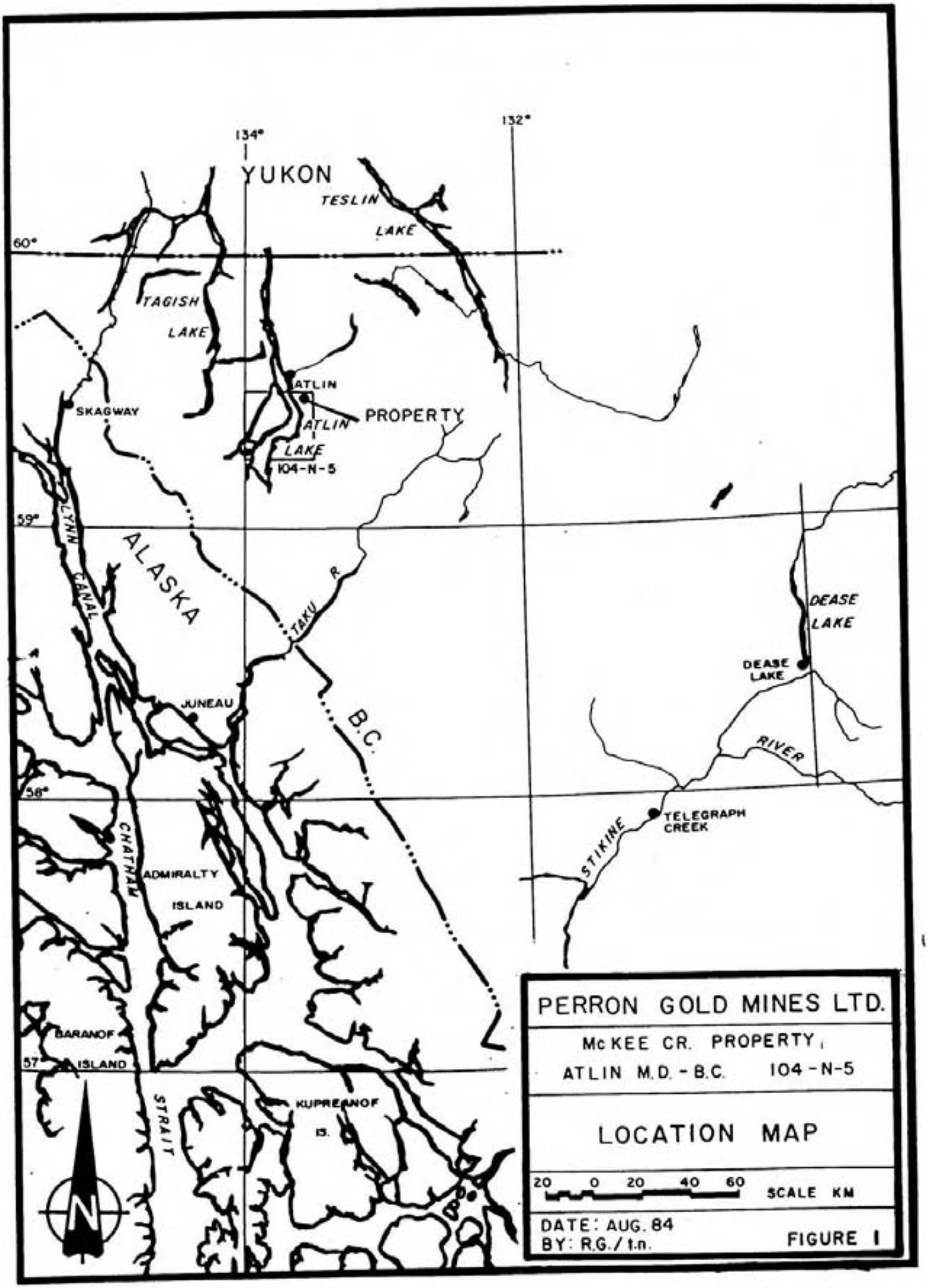
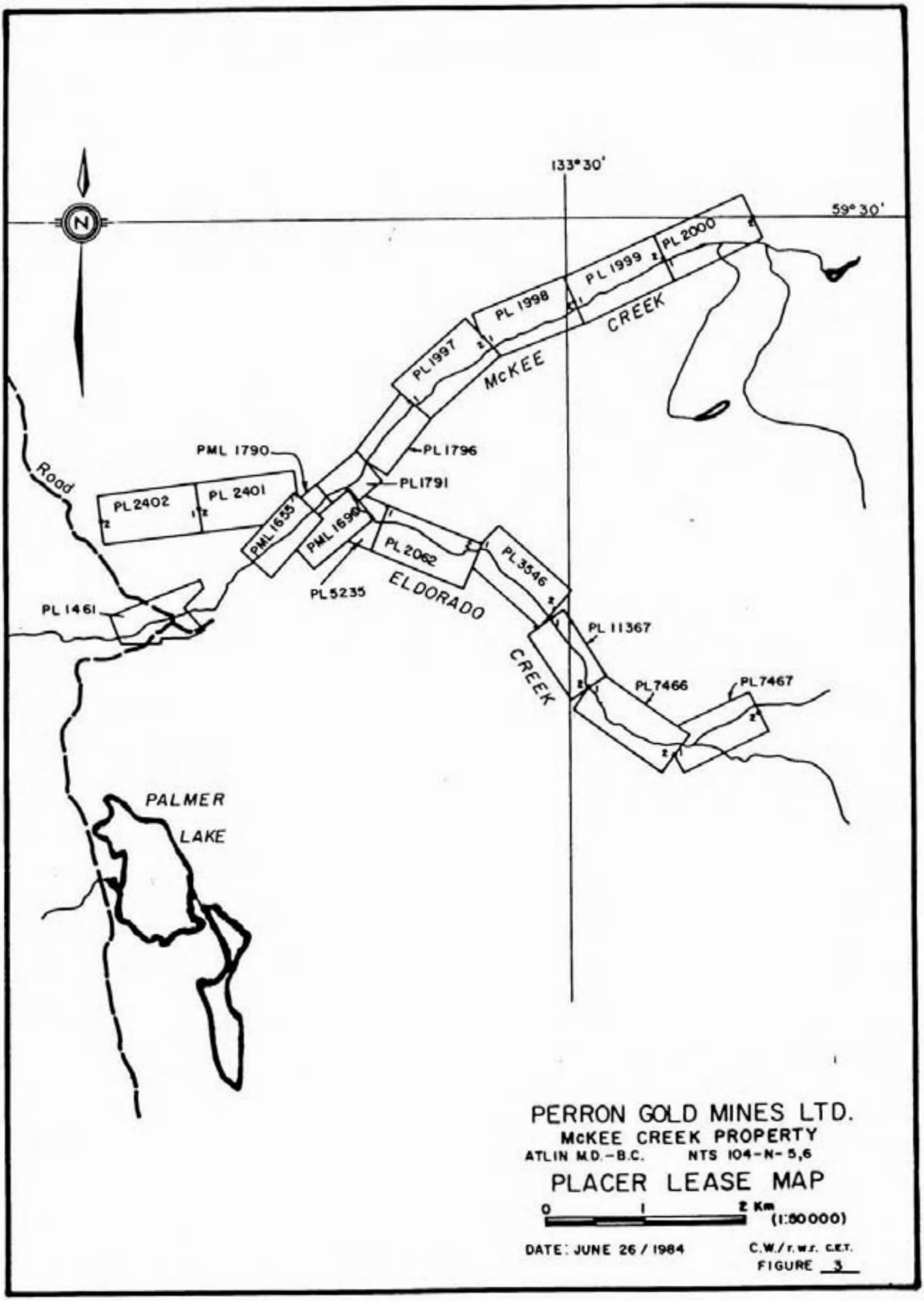

134°
132°
YUKON
TESLIN
LAKE
60°
TAGISH
LAKE
ATLIN
SKAGWAY
PROPERTY
ATLIN
LAKE
104-N-5
59°
LYNN CANAL
ALASKA
TAKU R.
DEASE
LAKE
DEASE
LAKE
JUNEAU
B.C.
RIVER
58°
CHATHAM
ADMIRALTY
ISLAND
TELEGRAPH
CREEK
STIKINE
BARANOF
ISLAND
57°
STRAIT
KUPREANOF
IS.
N
PERRON GOLD MINES LTD.
McKEE CR. PROPERTY,
ATLIN M.D. - B.C. 104 - N-5
LOCATION MAP
20 0 20 40 60
SCALE KM
DATE: AUG. 84
BY: R.G./t.n.
FIGURE 1



PERRON GOLD MINES LTD.

McKEE CREEK PROPERTY

ATLIN M.D.-B.C. NTS 104-N-5,6

PLACER LEASE MAP

0 1 2 Km (1:50000)

DATE: JUNE 26 / 1984 C.W./r.w.r. C.E.T.

FIGURE 3

BENEFICIATION OF GOLD FROM TEST DRILL HOLES AT ELDORADO CREEK, ATLIN AREA, B.C.

by C.L. SOUX

1. INTRODUCTION

1.1. ElDorado Creek is a tributary of McKee Creek and is located about 10 miles east of the town of Atlin.

1.2 The purpose of the work carried out by the writer, from 25 July to 10 August, 1984, was to recover and report free gold values from selected test drill-hole samples obtained at ElDorado creek.

1.3 A preliminary assessment of gold content in some tailing dumps at McKee Creek was also undertaken. However, the values reported are only indicative of the amount of gold present in the $<500\,\mu$ size range and in no way represent an assessment of the overall gold content in the tailing dumps.

2. METHOD

2.1 All samples were treated according to the Flowsheet shown in page 4.

2.2. After measuring the volume of sample to be treated ($\approx$10-20 Lit.), the sample containing coarse material were wet sieved, using a ½" screen. Only a few samples were treated this way since the particle size, in most samples, was less than ½".

2.3 Previous to passing the -½" material in a batch-test size sluice box, the slope of the sluice box and amount of water used was carefully regulated using an artificial sample containing a predetermined amount of black sand in the size range 500μ-50μ, in order to obtain a recovery of the black sand better than 85%. In this way, the recovery of gold particles down to $\approx 30\mu$ was assured. The tailings were stored for possible further tests or analyses.

2.4 The sluice box concentrate was carefully panned using a Malaysian wooden pan. After separating the magnetite and iron shavings of the drill bit with a hand magnet from the pan concentrate, the gold content in the sample was estimated by the number and size of the free gold particles recovered.

All the pan concentrates, including the gold were then stored in vials and the tailings discarded.

3. RESULTS

3.1. The graphs on page 5 show for each drill hole, the gold content for each 2' or 4' section of selected samples along the depth of the hole. A range of gold particle size for each sample treated is also given opposite each Au. content bar. The size ranges indicated represent the range at which most of the gold is distributed.

3.2 In general the gold content in the drill hole samples is quite low. Values range from 1 mg/m^3 to a maximum of 460 mg/m^3. In many cases, no gold was detected.

In most cases, gold is present in the -200/+50μ size range. The maximum size detected was 800μ.

3.3. It should be noted that gold values reported from bedrock material correspond only to the liberated gold during drilling. Therefore, chemical assays should be carried out on the tailings of the sluice box to assess the amount of interlocked gold. These values should then be added to the values indicated in the present report, in order to obtain the total gold content in the sample.

3.4. The bedrock samples consist in all cases of a greenish-black ultramafic rock highly altered to talc and serpentine, with abundant magnetite and pyrite. The possible association of gold and pyrite should also be investigated.

3.5. The tailing dumps at McKee Creek were sampled at four locations in order to assess their potential. However, since only 30 kg. to 80 kg. of material were collected at each sample site, the results shown on page 5 are only indicative of the presence of gold in the <500μ size range. Since the presence of coarse gold at McKee Creek is well known, a table (page 6) was prepared for the purpose of determining the amount of material to be taken as a sample in the future, depending on the largest particles of gold expected and with a statistical error or standard deviation of 5% to be tolerated.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1. The gold content in the drill hole samples is low. The values range from 1 mg/m^3 to 460 mg/m^3. In some samples no gold was detected.

4.2. Most of the gold is present in the -200/+50μ size range. The maximum size observed being 800μ.

4.3. The gold values reported for samples corresponding to bedrock material are only for liberated gold. Therefore, a chemical assay of the sluice box tailings of this material should be carried out, in order to obtain the total gold content of the samples.

Since the bedrock samples contain abundant pyrite, the possibility of pyrite-gold association should be investigated.

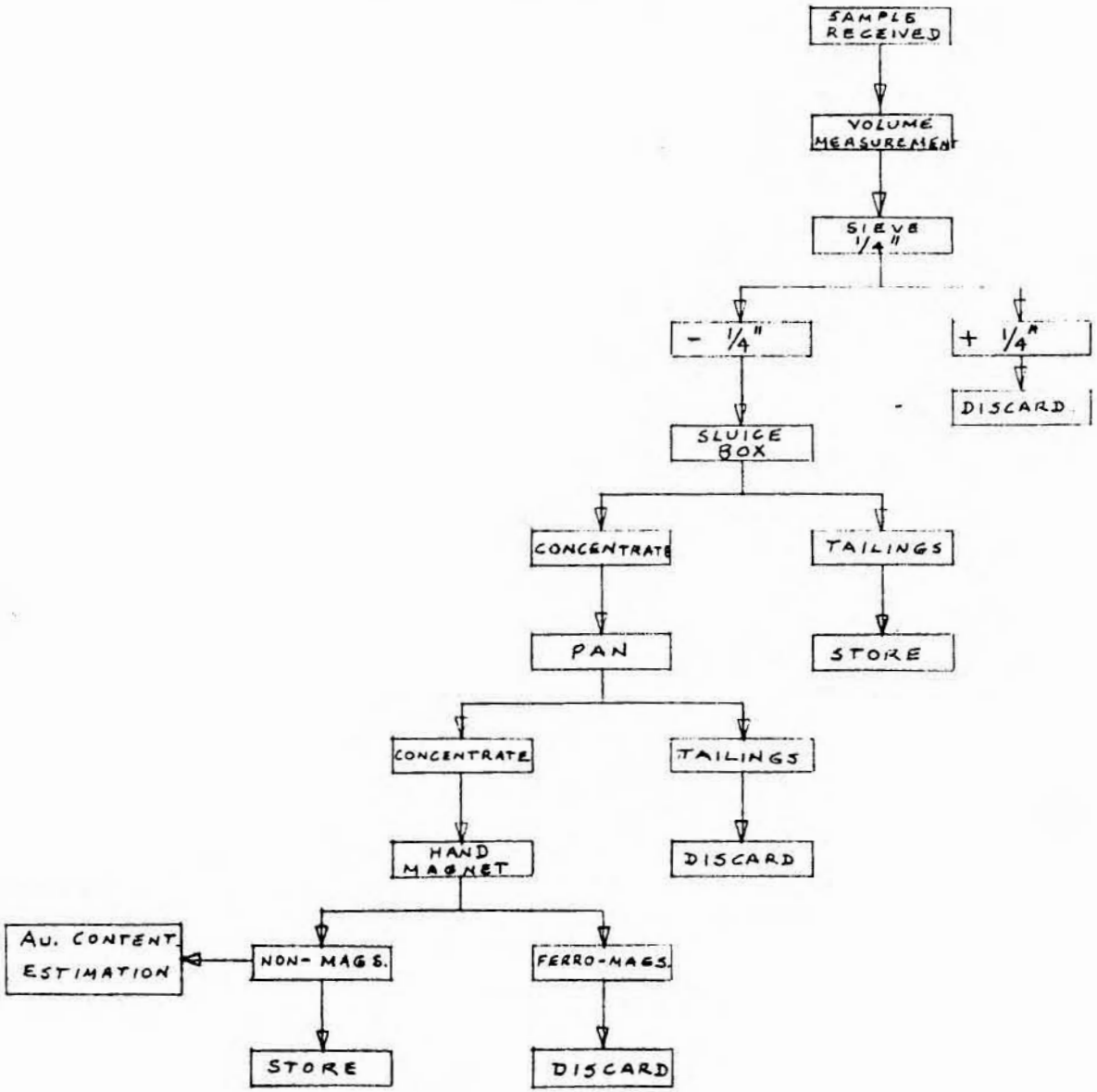
4.4. Mineralogical analyses of selected heavy sands is advisable in order to determine the possible economic value of other elements present in the samples. i.e. Sn,W,Ti,Ta, rare earths, etc.

4.5. A future assessment of tailing dumps should take into consideration the size of the largest gold particles present, in order to determine the amount of sample to be taken within a tolerable statistical error.

Respectfully submitted,

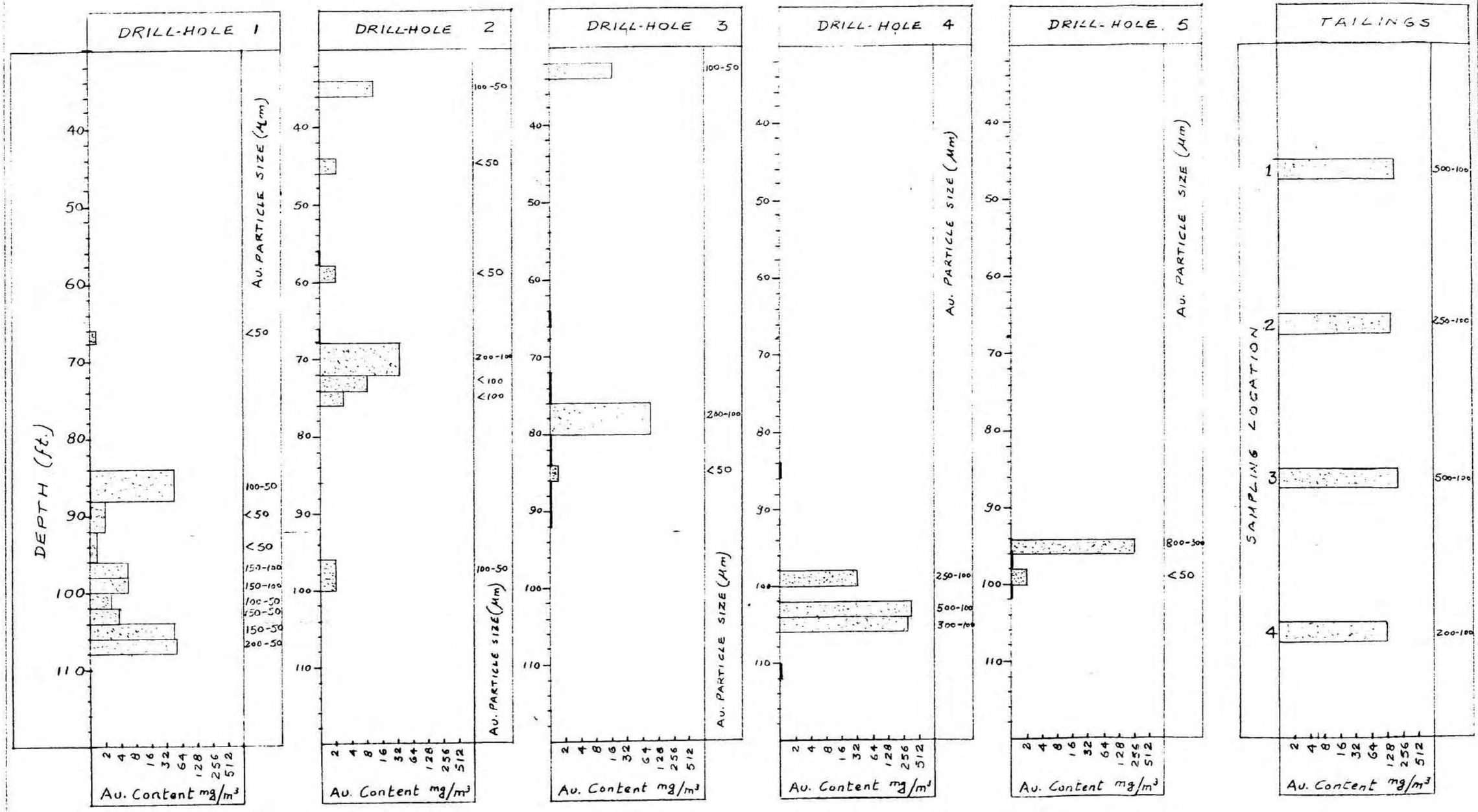
C.D. Soux, B.Sc.

SAMPLE TREATMENT FLOWSHEET



(5)

GOLD CONTENT AND PARTICLE SIZE DISTRIBUTION FOR TAILINGS AND DRILL-HOLE MATERIAL AT DIFFERENT DEPTHS.



TAILINGS SAMPLING.

WEIGHT OF SAMPLE REQUIRED ASUMING:

① Average Au content of 0.5 grs/ton
② Standard deviation or statistical relative error (S = 5%)
③ Liberation factor = 1

DIAMETER OF LARGEST GOLD PARTICLE EXPECTED	MINIMUM WEIGHT OF SAMPLE REQUIRED
1 cm.	640 tons (metric)
0.5 cm.	80 tons (metric)
1 mm.	640 Kg.
500 μm.	80 Kg.

5. STATEMENT OF PROFESSIONAL QUALIFICATIONS

Christian Soux, B.Sc.

ACADEMIC

1972	B.Sc. in Geology	University of British Columbia

PROFESSIONAL

1983	Consulting Geologist.	Vancouver, B.C.
1979-1983	Consultant attached to SOUTH-EAST ASIAN TIN RESEARCH ADMINISTRATION (SEATRAD) and posted in Malaysia.	Chief Mineralogist at the S.E. Asia Tin Research and Development Centre at Ipoh, Malaysia.
1976-1979	Consultant on contract to The United Nations and posted in La Paz, Bolivia.	Geologist attached to the Bolivian Institute of Mining and Metallurgy for the purpose of studying and evaluating tin and precious metal deposits.
1975-1977	Instituto de Investigaciones Minero Metalurgicas; Oruro, Bolivia.	Head: Division of Mineralogy and Instrumental Analysis.
1975-1976	Instructor in mineralogy	University of Oruro, Bolivia.
1974-1975	Consulting Geologist.	Vancouver, B.C.
1972-1974	Falconbridge Nickel Mines Ltd.	Geologist.

6. COST STATEMENT

BENEFICIATION OF GOLD FROM TEST DRILL HOLES
25 July - 10 August 1984

Consultant		
C.L. Soux, 17 days field services @ $200/day		$ 3,400.00
Cash expenses		130.85
FOOD AND ACCOMMODATION		
Perron, 17 days @ $27.87		459.00
RENTAL EQUIPMENT		
Mt. Seigel, Pump and Sluice, 17 days @ $50	$ 850.00	
Repairs and shipment	207.59	
Norcan 4wd Suburban, 25 Jul-10 August w/damage	1,442.16	2,499.75
REPORT PREPARATION		897.50
		$7,387.10

A REPORT

ON

A SEISMIC REFRACTION SURVEY

Atlin Area, British Columbia

59° 25'N, 133° 32°W

N.T.S. 104N-12E

Claims Surveyed: P.L. #2062
P.M.L. #1655

Survey Dates: June 10th - July 24th, 1984

FOR

PERRON GOLD MINES LTD.

Vancouver, B.C.

BY

PETER E. WALCOTT & ASSOCIATES LTD.

Vancouver, B.C.

APRIL 1985

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A P P E N D I X

INTRODUCTION.

Between June 10th and July 24th, 1984, Peter E. Walcott & Associates Limited carried out a three line seismic refraction survey over part of a property, located in the Atlin area of British Columbia, for Perron Gold Mines Ltd.

The survey was carried out over three approximately N 45° E handcut lines that were chained by the geophysical crew.

Seismic refraction profiling was undertaken using a Nimbus ES-1210F 12 channel seismograph with dynamite as the source of energy. Records were shot in both directions with a 15 metre geophone takeout spread.

The results are presented as bedrock profiles bound in this report.

PROPERTY, LOCATION AND ACCESS.

The property is located in the Atlin Mining District of British Columbia and consists of the following leases.

P.M.L. #'s 1461, 1997 - 2000, 2062, 2401 & 02, 3546, 5235, 7466 & 67

P.L. #'s 1655, 1690, 1790 & 91, 1796

The leases are situated on McKee and Eldorado creeks some 15 kilometres southeast of the town of Atlin, British Columbia.

Access was obtained by means of 4 wheel drive vehicle by existing roads in and along the creek beds put in to service the properties in former times.

PREVIOUS WORK.

Previous work on the property, apart from the excavating of the channel on McKee Creek, consisted of two recent rotary drill holes on Eldorado Creek to determine overburden depth.

PURPOSE.

The purpose of the survey was to try to investigate the suspected bedrock channel - the old Eldorado creek bed - with regards to its occurrence, location and thickness of gravel fill in an effort to locate placer gold in the same.

GEOLOGY.

The reader is referred to the forementioned reports held by Perron Gold Mines Ltd.

SURVEY SPECIFICATIONS.

The seismic refraction survey was carried out using a 12 channel signal enhancement seismograph - Model ES-1210F - manufactured by EG & G Geometrics of Sunnyvale, California.

Basically the system consists of the following: (1) the geophones, moving coil electromagnetic tranducers whose functions are to transform the mechanical energy of the arriving seismic waves into electric signals, (2) the amplifiers with adjustable gains where the signal strengths can be adjusted for optimized display (3) the filters where the incoming signals can be deleted of a variety of unwanted signals, i.e. noise, generated by wind, machinery, etc. (4) the CRT - cathode ray tube - with adjustable traces where the incoming signals are displayed on a daylight visible screen (5) the electro-sensitive plotter where a hard copy of the optimally adjusted display is obtained.

Records were obtained from shot points 45 or 50 metres apart along the survey lines using a geophone spread cable with 15 metre takeouts. The spread length was adjusted to that 5 to 10 metres geophone-shot point arrivals could be obtained for topsoil corrections. Shot points were staggered - 50 metres - in some cases in an effort to obtain better geophone locations and thus better coupling with the ground.

DISCUSSION OF RESULTS.

This section should be perused in conjunction with the report on the rotary drilling programme by R. A. Gonzalez M.Sc. dated November 1984 which shows the location of the seismic lines.

Considerable problems were encountered in trying to obtain good data due to the noise from the fast flowing - white water - Eldorado and McKee creeks - the poor coupling from the fine gravel and sand sections used to make the roads next to the creek, the overlying sandy topsoil on the banks, and the frozen ground on the southern section of the lines.

These coupled with the steep topography and hardpan layers within the underlying clays lead to results with different end times and poor velocity recognition as seen on the time-distance plots.

The data from Eldorado creek were corrected for topography i.e. reduced to a common datum plane. Unfortunately no good determinations of the velocities of the underlying refractors were available such as from borehole data, or from tests on exposed outcrop, so that the average velocities obtained from the collected data were used to make the topographic adjustments.

The data were interpreted on the basis of a three layer case i.e. a low velocity surface layer, a clay layer and the underlying bedrock. Graditional or inversional velocities within the clay layer - entirely possible due to the percent clay, size and type of grains and pebbles, etc. - which could give rise to more layers and greater depths to bedrock were not considered.

The "plus - minus" method of interpretation was used to determine depths to bedrock at geophone locations which recorded bedrock head-wave arrivals from reversed shot points shown by the heavier line on the bedrock profile, while the intercept time was used to make depth determinations at shot points giving rise to data from separate parts of the clay - bedrock interface, illustrated by the lighter line.

The results obtained are best discussed on a line by line basis:

The Road Line

Two 150 metre reversed shots were carried out along a 300 metre makeshift line along the road with the 100 metre mark at 0 on Line 1 S and extending to some 20 metres south of the westerly chert outcrop shown on Figure 3 of Gonzalez's report. Bedrock velocities determined from the

DISCUSSION OF RESULTS cont'd

slope of the 'minus' plots were only seen on the first 45 metres of the line, and velocities of 2100 and 2575 m/sec obtained thereafter showed the line to be shot over considerable thickness of clay - it was attempted to obtain data from 150 to 300 metres but due to the location of the line right next to the creek, etc. no useable information was obtained.

Line 1 S

Velocity determinations from closer spaced reversed shots show the underlying clay layer to have an average velocity of some 2500 m/sec beneath the hard compacted road bed, and some 1300 m/sec on the two hillsides.

"Minus' plots on suspected bedrock head-wave arrivals on reversed shots across the surface depression do not exhibit slopes corresponding to bedrock velocities between 70 W and 50 E, i.e. the first arrivals there were not from bedrock thus suggesting an abrupt change in depth to same.

Line 2 S

Similar results were obtained on this line except that a lower velocity for the underlying clay was obtained across the surface depression.

Again as on Line 1 S no bedrock arrivals were recorded between 40 W and 35 E.

No second layer, clay layers, is suggested from 100 W to 25 W and from 35 E to 50 E on the closely spaced shots, i.e. the bedrock is considerably shallower there.

Line 0, McKee Creek

The data here were not corrected to a common datum but the depths determined were plotted from the actual surface profile.

As can be seen from the accompanying profile the data suggested the bedrock to be shallow from 15 W westwards and from 230 E eastwards as determined by closely spaced shots and from "minus" plots on reversed bedrock arrivals.

The "minus" plots also suggest that the arrivals for 45 E were not from bedrock, and thus the determined depth - shown by a ? on the bedrock profile - is necessarily a minimum one.

DISCUSSION OF RESULTS cont'd

Two bedrock profiles are plotted beneath the till layer - one, the dashed line - obtained by using V_2 velocities from closely spaced shots, shown in parentheses, and two, the solid line, obtained by using an average velocity for V_2 of 1300 m/sec.

In each case they show an abrupt change in bedrock elevation between 45 E and 60 E and suggest the presence of a buried channel circa 45 E.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.

Between June 10th and July 24th, 1984, Peter E. Walcott & Associates Limited shot three short seismic refraction profiles across Eldorado and McKee creeks near Atlin, British Columbia, for Perron Gold Mines Ltd. in an effort to determine the existences of old buried stream channels - the source of placer gold in the Atlin camp.

After the results have been processed calculations on the somewhat poorer quality data in the middle of the traverses showed that head-wave arrivals were not obtained from bedrock in some places, thereby suggesting the presence of buried channels which are too narrow and too steep to determine their depths by the seismic refraction method.

Subsequent rotary drilling proved the existence of the same on Eldorado creek.

Respectfully submitted,

PETER E. WALCOTT & ASSOCIATES LIMITED

Peter E. Walcott, P.Eng.
Geophysicist

Vancouver, B.C.
April 1985

APPENDIX

COST OF SURVEY.

Peter E. Walcott & Associates Limited undertook the survey on a daily basis. Mobilization and reporting costs were to be billed in addition so that the cost of services provided was $19,657.99.

PERSONNEL EMPLOYED ON SURVEY.

Name	Occupation	Address	Dates
Peter E. Walcott	Geophysicist	Peter E. Walcott & Assoc. 605 Rutland Court, Coquitlam, B.C. V3J 3T8	June 10th - July 24, Nov. 29th - 30th, 84 Mar. 1st - Apr. 3rd, 1985
V. Pashniak	Geophysical Operator	"	June 10th - July 14, 1984
D. Sloan	"	"	June 10th - July 24, 1984
S. Gibbons	"	"	July 9th & 10th, 84
P. Charlie	"	"	July 9th - July 24, 1984
C. Speropoulos	Geophysical Assistant	"	June 10th - July 24, 1984
D. Dawson	"	"	July 9th - July 14, 1984
J. Walcott	Typing	"	November 30th, 84 April 3rd, 1985
G. MacMillan	Draughting	"	Nov. 25th, 1985 Mar. 21 - 24th, 85

CERTIFICATION.

I, Peter E. Walcott, of the Municipality of Coquitlam, British Columbia, hereby certify that:

1. I am a Graduate of the University of Toronto with a B.A.Sc. in Engineering Physics, Geophysics Option, in 1962.

2. I have been practising my profession for the last 22 years.

3. I am a member of the Association of Professional Engineers of British Columbia and Ontario.

4. I hold no interest, direct or indirect, in the securities and/or properties of Perron Gold Mines Ltd. nor do I expect to receive any.

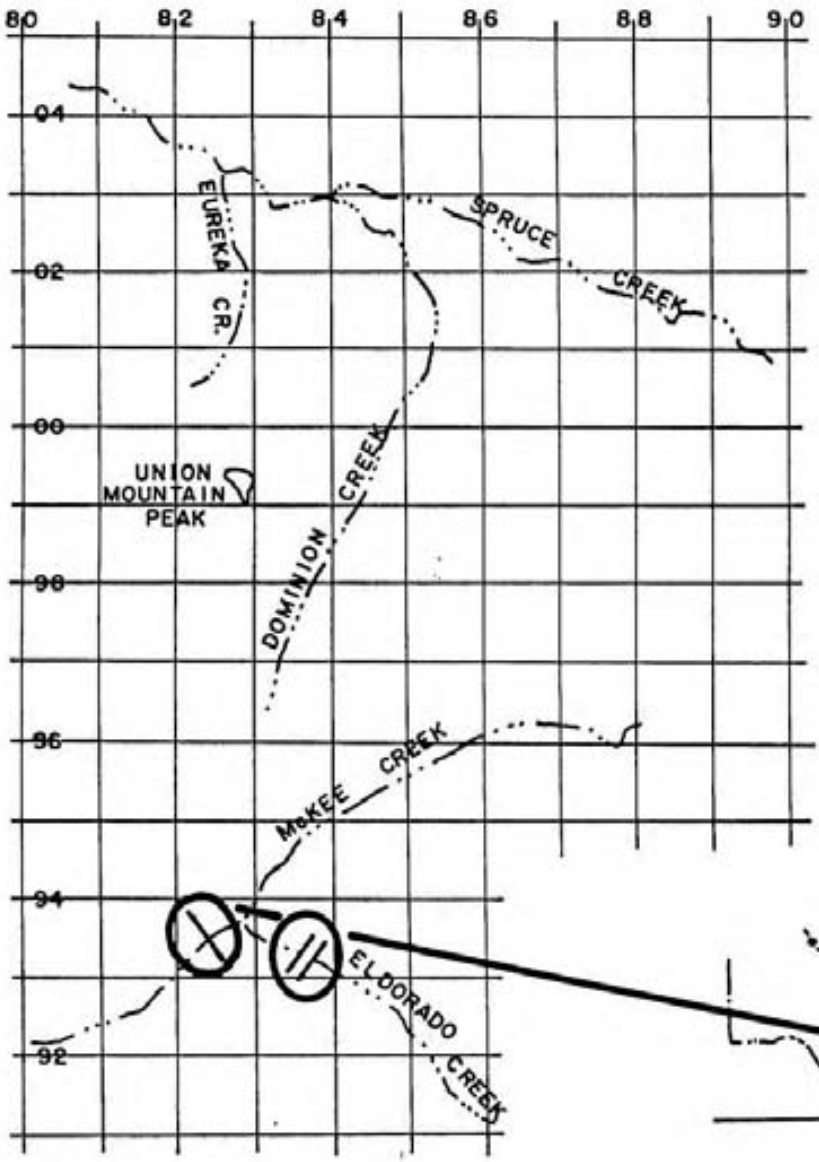
Peter E. Walcott, P.Eng.

Vancouver, B.C.
April 1985

PERRON GOLD MINES LTD.

CLAIM LOCATION MAP

ATLIN MINING DIVISION , B.C.

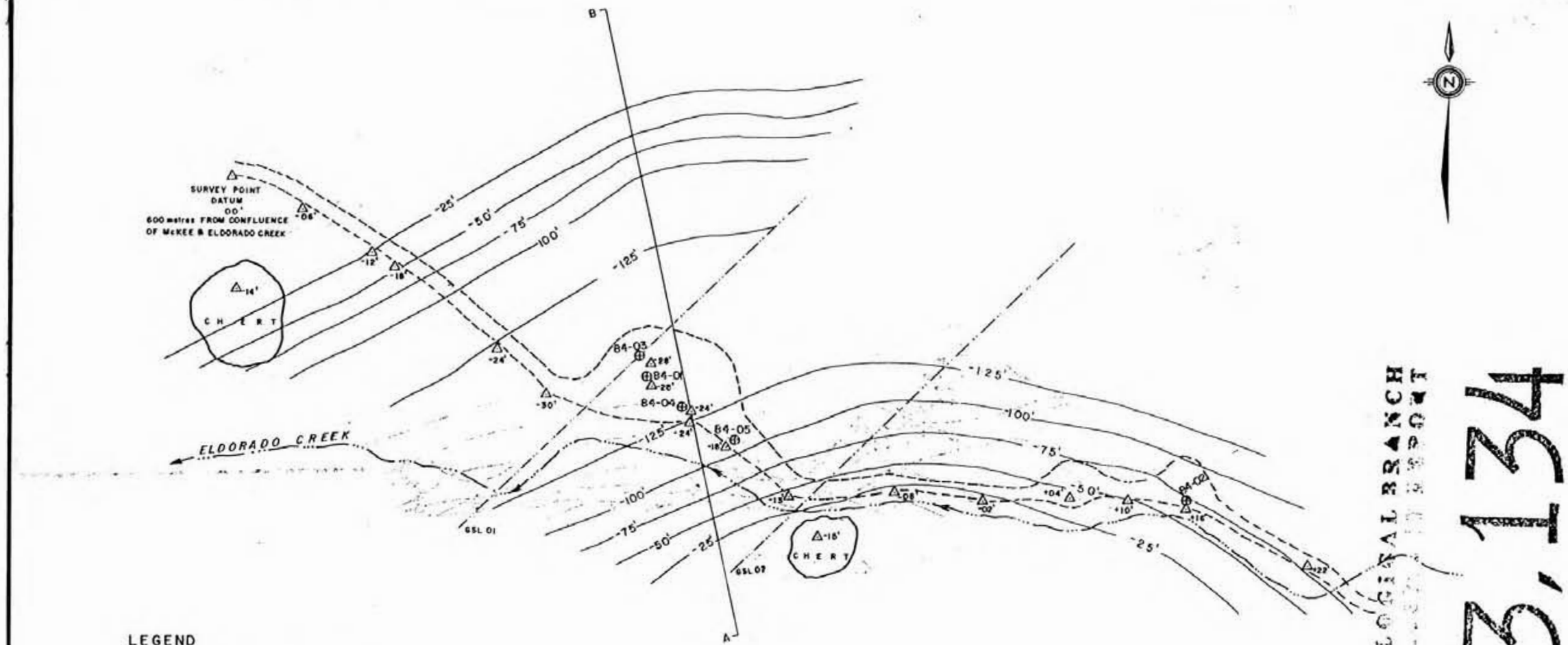


SCALE 1:100,000

AK B R4
See Fig 4 1:10,000 Geology.

SCALE 1:9,100,000

N.T.S. 104-N-11W & 12E



N

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,174

LEGEND

-75' ELEVATION OF BURIED CHANNEL IN FEET FROM DATUM PLANE

CREEK

CHERT OUTCROP

ROAD

-24' SURVEY POINT GIVING ELEVATION IN FEET RELATIVE TO DATUM POINT

GSL 01 GEOPHYSICAL SEISMIC LINE

84-05 LOCATION & NUMBER OF ROTARY DRILL HOLE

B A LOCATION OF CROSS SECTION $\overline{AB}$

NOTE: DRILLED BY MIDNIGHT SUN, WHITEHORSE, YUKON TERRITORY, 28 July - 2 August, 1984

PERRON GOLD MINES LTD.

McKEE CR. PROPERTY
ATLIN M.D. - B.C. 104-N-5

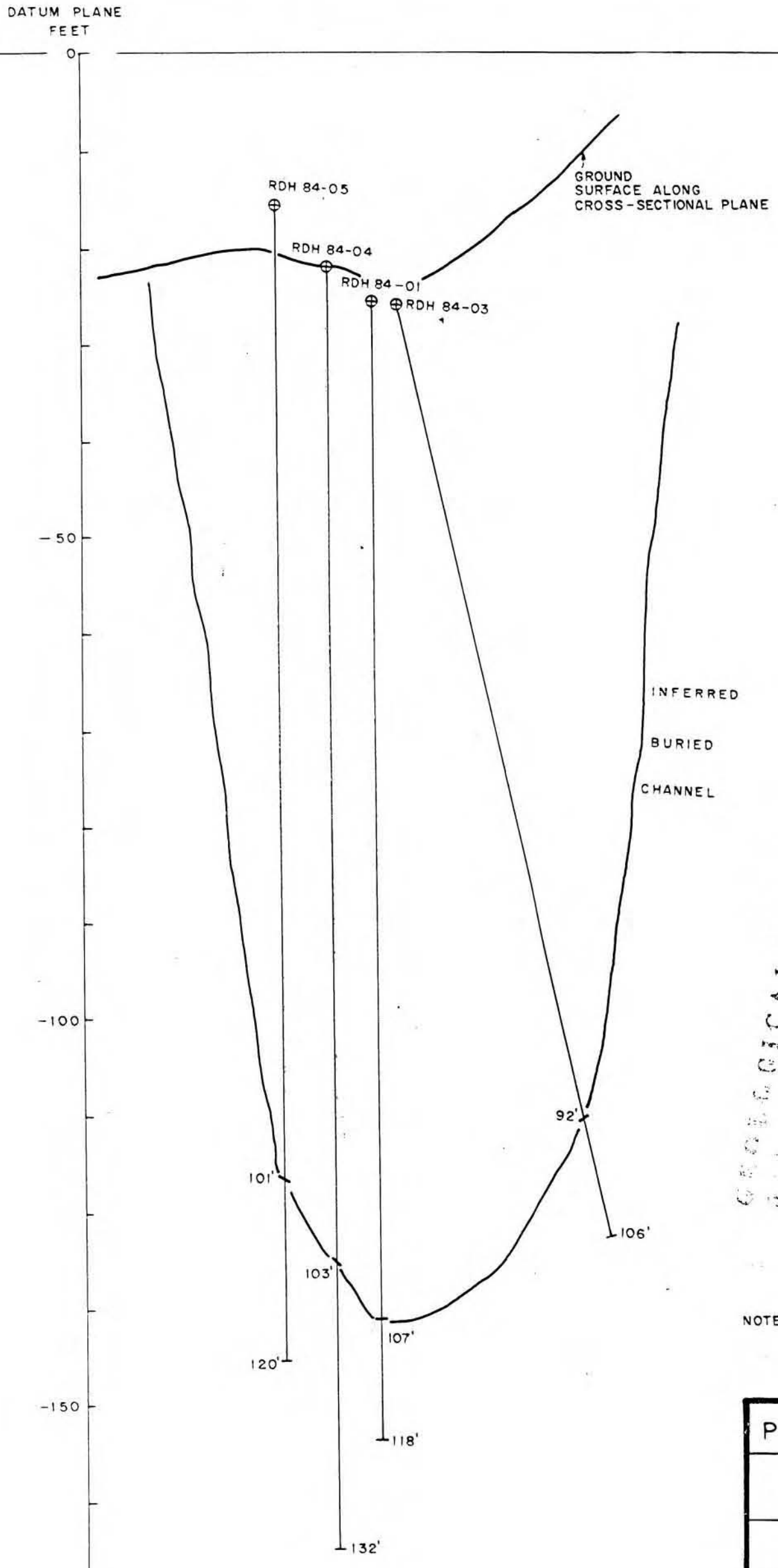
ROTARY DRILL HOLE
LOCATIONS, ELDORADO CREEK

SCALE 1:1000
0 10 20 30 40 50 metres

DATE:
BY: S.L./d.w.

FIGURE 3

LOOKING WEST, SOUTHWEST



NOTE: VERTICAL EXAGERATION x6.56

PERRON GOLD MINES LTD.

McKEE CR. PROPERTY

ATLIN M.D. - B.C. 104-N-5

CROSS SECTION $\overline{AB}$

ALONG ELDORADO CREEK

SCALE 1 : 1000

0 10 20 30 40 50 metres

DATE:

BY : S.L. / d.w.

FIGURE 4

N

HARV

PENNY

MARY

COX

KIA

BINGO

McKEE CREEK

LIMY AND

+ Minor 3a

5 + CHERT Brxx CLASTS

PORPHYRITIC IN PLACES

ANDESITE + MINOR 3, 3a

PORPHYRITE

+ MINOR LIMESTONE LENS

Minor 3a

INTERBEDDED HEMITITIC CHERT

SEE DETAIL MAP (FIGURE)

LCP

SLICKENSIDES TRENDING N/S

QTZ + MINOR 5 C_3 FRT. VN.

ANDESITE WITH CHERT BRXX

ELDORADO CREEK

PORPHYRITIC FLOAT IN PLACES

SERP.

CARB.

CRINOIDAL STEM CLASTS

BASALTIC IN PLACES

LEGEND

- 5 DIORITE DYKE
- 4 ANDESITE
- 3 ULTRAMAFIC
- 3a CARBONATIZED/ SERPENTINIZED ULTRAMAFIC (CARB) (SERP)
- 2 CHERT WITH MINOR ANDESITE
- 1 LIMESTONE

- OUTCROP
- ESTIMATED OUTCROPPING
- CONTACT
- CONTACT ASSUMED
- FAULT SHOWING, TREND & MOVEMENT
- ANTICLINE, SHOWING AXIAL PLANE & PLUNGE DIR'N
- SYNCLINE, SHOWING AXIAL PLANE & PLUNGE DIR'N
- STRIKE AND DIP OF BEDDING
- ATTITUDE OF FRACTURE

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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PERRON GOLD MINES LTD.

McKEE CK. PROJECT
ATLIN M.D.-B.C. 104-N-5

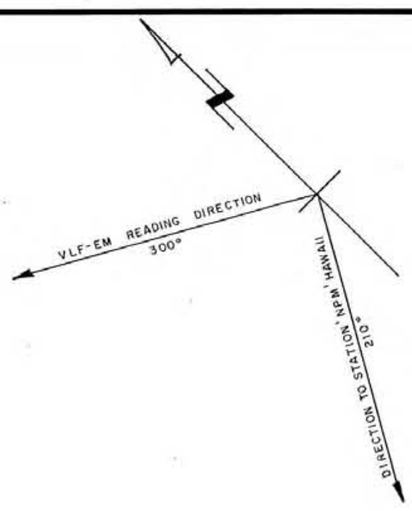
McKEE CREEK PROPERTY
SILVIA GROUP
GEOLOGY MAP

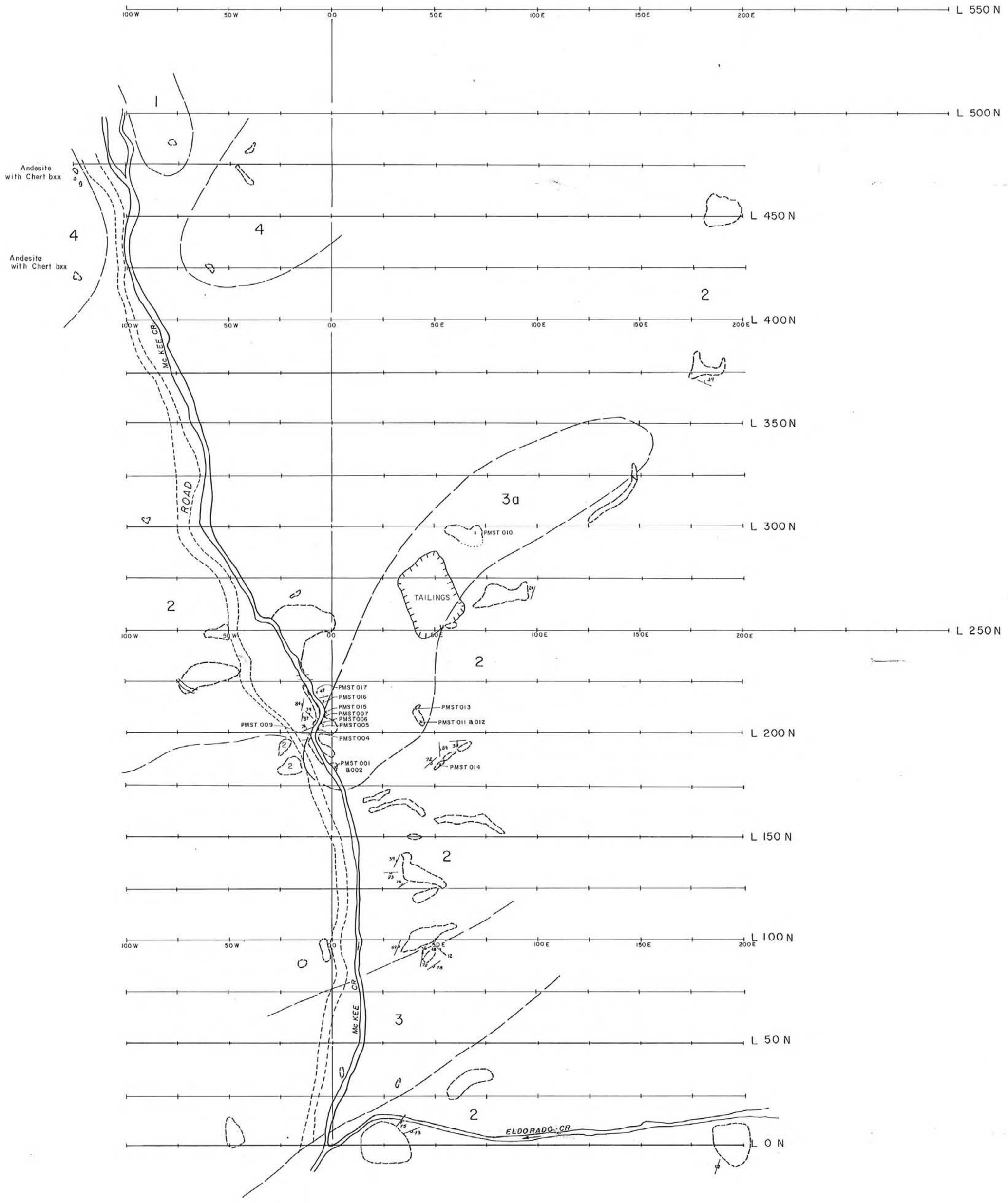
0 100 200 300 400

SCALE 1:10000

DATE AUG./84
BY: R.G./r.w.r. (after S.Lau)

FIGURE 4





LEGEND

4a	CARBONATIZED ANDESITE
4	ANDESITE
3a	CARBONATIZED ULTRAMAFIC
3	ULTRAMAFIC
2a	ARGILLITE
2	CHERT
1	LIMESTONE

78 BEDDING

40 FRACTURES

72 36 SLICKENSIDES (FAULT PLANE)

CONTACT

OUTCROP, FLOAT

x PMST001 ROCK CHIP SAMPLE NUMBERS

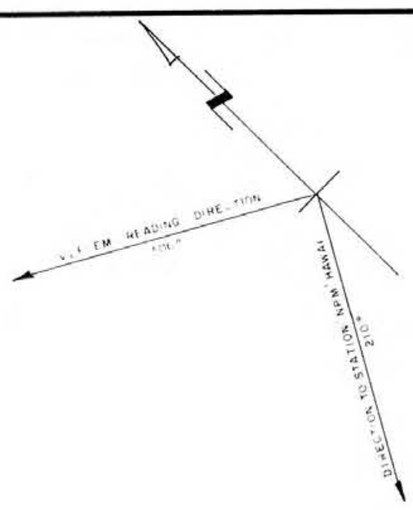
PERRON GOLD MINES LTD.

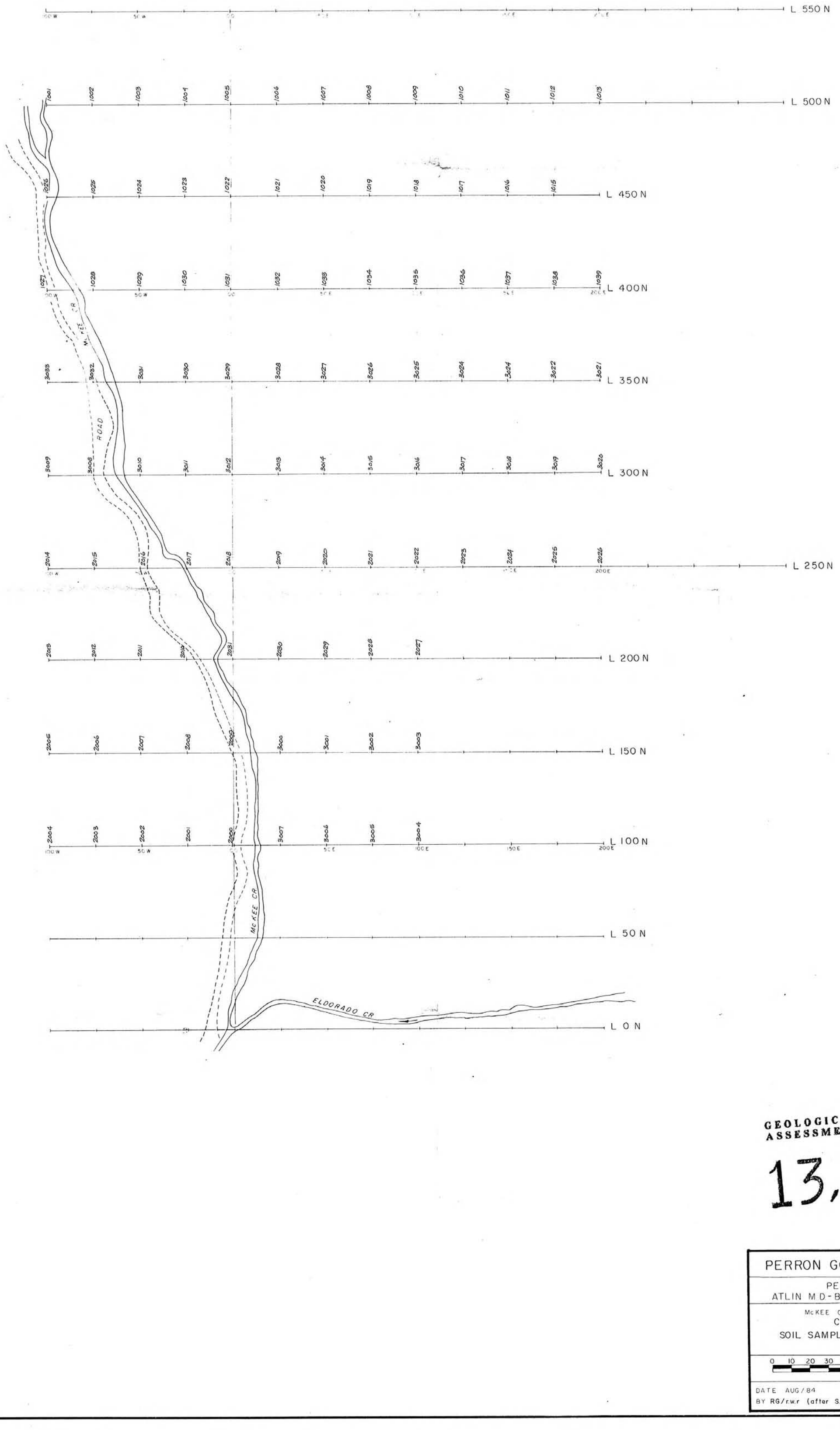
PENNY M.C.
ATLIN M.D.-B.C. 104-N-5

McKEE CREEK PROPERTY
CON GRID
GEOLOGY

0 10 20 30 40 50 SCALE 1:1000

DATE: AUG/84
BY: R.G./r.w.r. (after S. Lau) FIGURE 5





GEOLOGICAL BRANCH
ASSESSMENT REPORT

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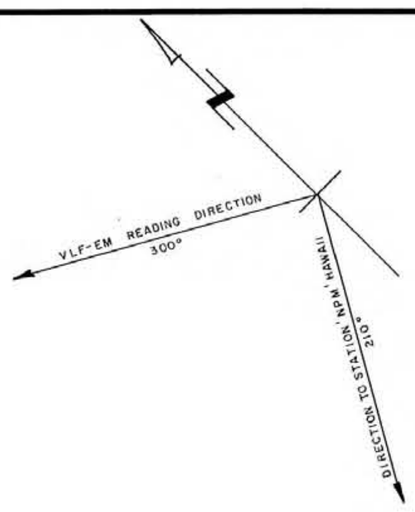
PERRON GOLD MINES LTD.

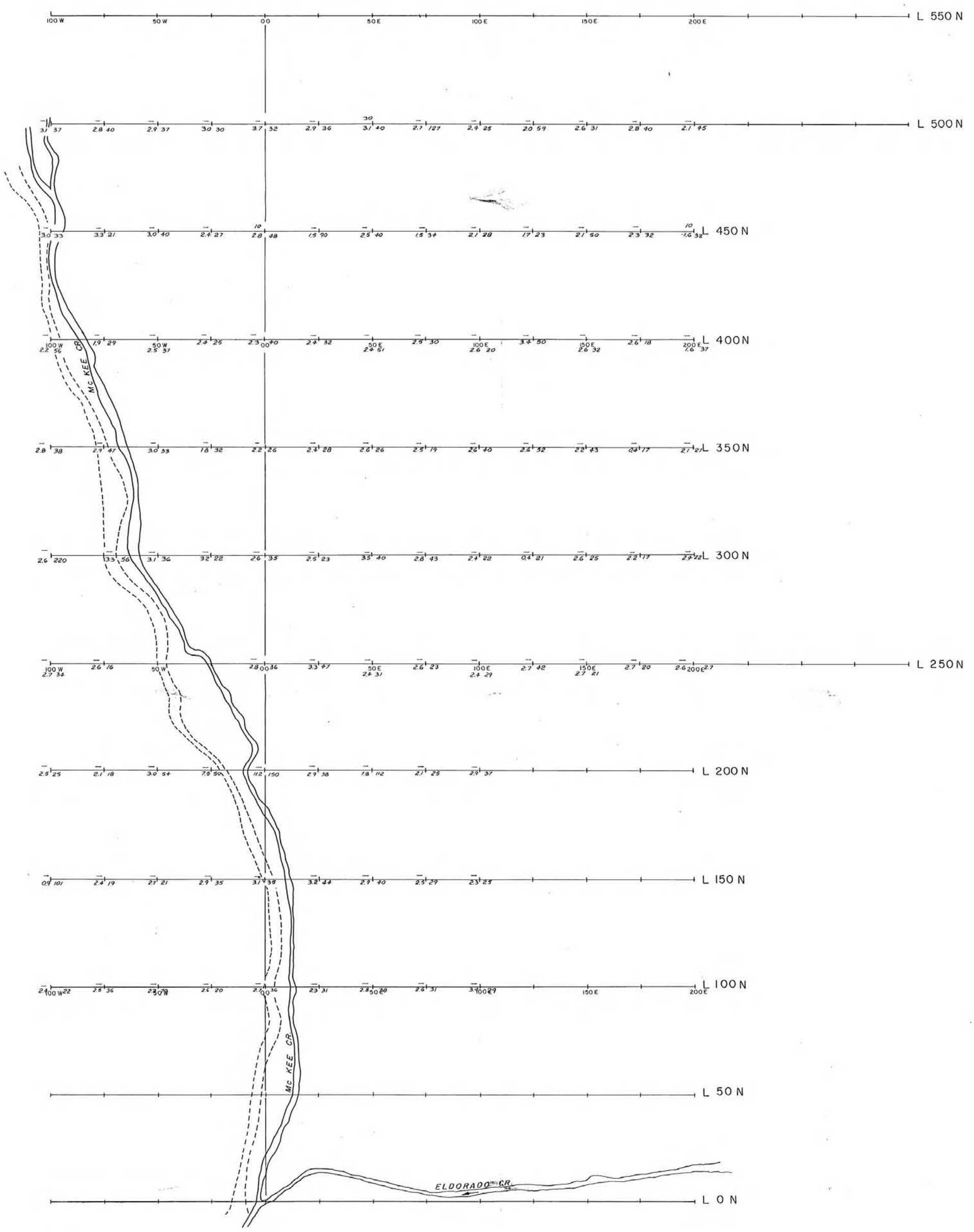
PENNY M.C.
ATLIN M.D - B.C. 104 - N - 5

McKEE CREEK PROPERTY
CON GRID
SOIL SAMPLE LOCATION MAP

0 10 20 30 40 50
SCALE 1:1000

DATE AUG/84
BY RG/r.w.r (after S.Lau)
FIGURE 6





LEGEND

Au(ppb)
2.5 | 36
Fe %
Cu(ppm)
– = <10 ppb Au

13,127

GEOLOGICAL BRANCH
ASSESSMENT REPORT

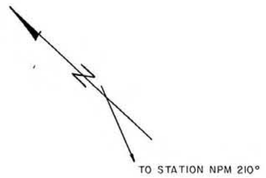
PERRON GOLD MINES LTD.

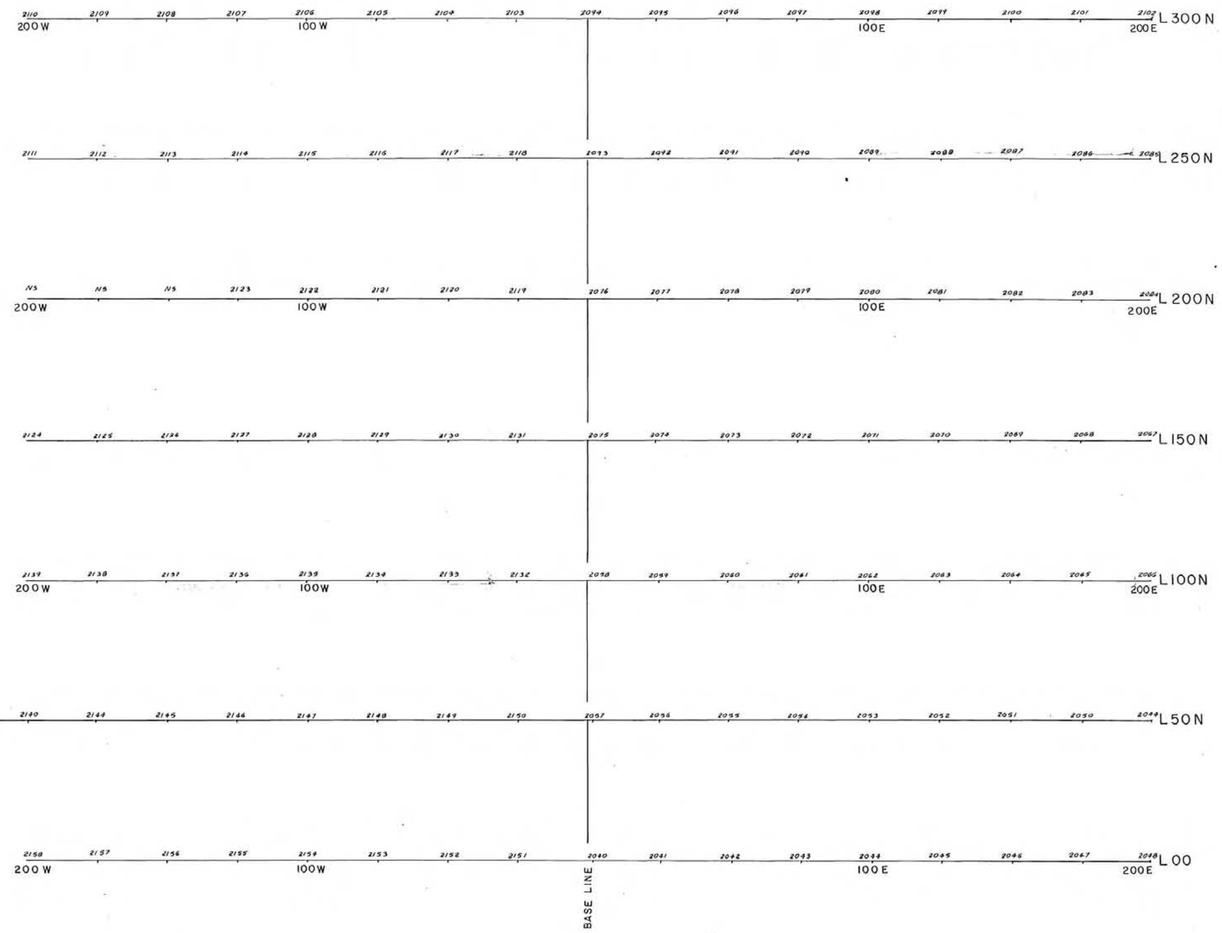
PENNY M.C.
ATLIN M.D. - B.C. 104 - N - 5

McKEE CREEK PROPERTY
CON GRID
SOIL GEOCHEMICAL SURVEY

0 10 20 30 40 50
SCALE 1:1000

DATE: AUG./84
BY: R.G./t.n. (after S.Lau)
FIGURE 7





PERRON GOLD MINES LTD.

PENNY M.C.
ATLIN M.D.-B.C. 104-N-5

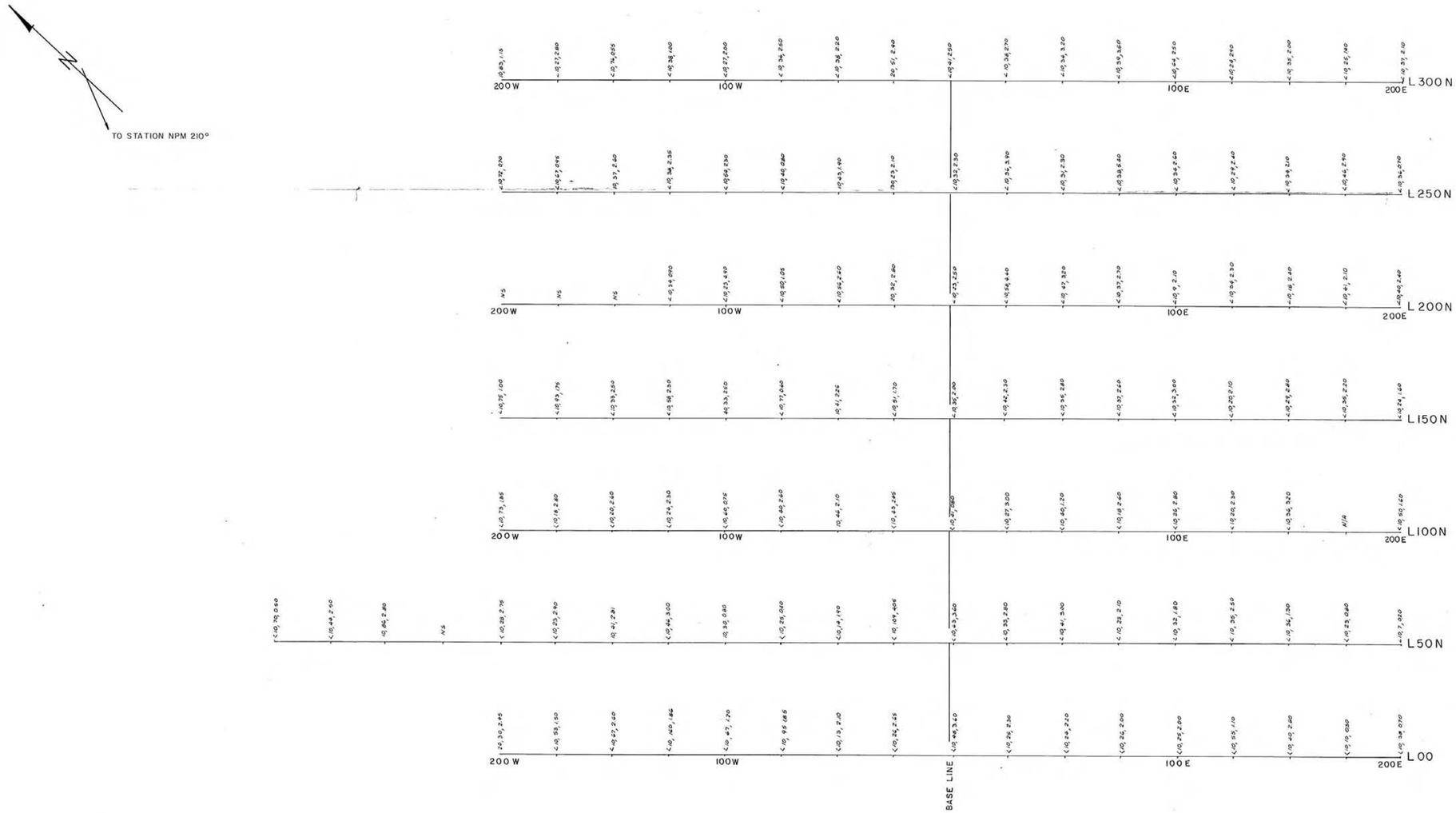
McKEE CREEK PROPERTY

CHAL GRID
SOIL GEOCHEMICAL SURVEY
SAMPLE LOCATION MAP

0 10 20 30 40 50 SCALE 1:1000

DATE: AUG./84
BY: R.G./t.n.

FIGURE 8



LEGEND

Fe %
Cu ppm
Au ppb

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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PERRON GOLD MINES LTD.

PENNY M.C.
ATLIN M.D - B.C. 104 - N - 5

McKEE CREEK PROPERTY

CHAL GRID
SOIL GEOCHEMICAL SURVEY
Au, Cu, Fe RESULTS

0 10 20 30 40 50
SCALE 1: 1000

DATE: AUG./84
BY: R.G./t.n.

FIGURE 9

N

HARV

PENNY

MARY

COX

KIA

BINGO

SA SOIL GRID

McKEE CREEK

ELDORADO CREEK

LCP

PMTY-03 ⊗ PMTY-04

PMTY-35 (SOIL) ⊗ PMTY-36 (ROCK CHIP)

PMTY-41, 42, 43, 44

PMTY-38

PMTY-40

PMST-09

PMKA-05

PMST-16,17

PMST-05,06,07,08

PMST-10

PMST-11,12,13

PMST-01,02

PMST-14

PMTY-37

PMTY-39

PMSL-01

PMTY-01

PMTY-20

PMTY-23

PMTY-29

PMTY-25

PMTY-28

PMTY-27,30

PMSL-05

PMTY-22

PMTY-24

PMTY-26

PMTY-11

PMTY-09

PMTY-10

PMST-20

PMKA-02

PMTY-08

PMTY-07

PMST-19

PMSL-06

PMKA-04

PMST-021

PMKA-03

PMTY-021

PMST-004

PMTY-18

PMST-03

PMKA-01

PMTY-20

PMTY-14

PMSL-03

PMSL-02

PMTY-13

PMTY-12

PMTY-16

PMTY-19

PMTY-15

LEGEND:

x ROCK CHIP SAMPLE LOCATION

⊗ SOIL SAMPLE LOCATION

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,134

PERRON GOLD MINES LTD.

McKEE CK. PROJECT
ATLIN M.D.-B.C. 104-N-5

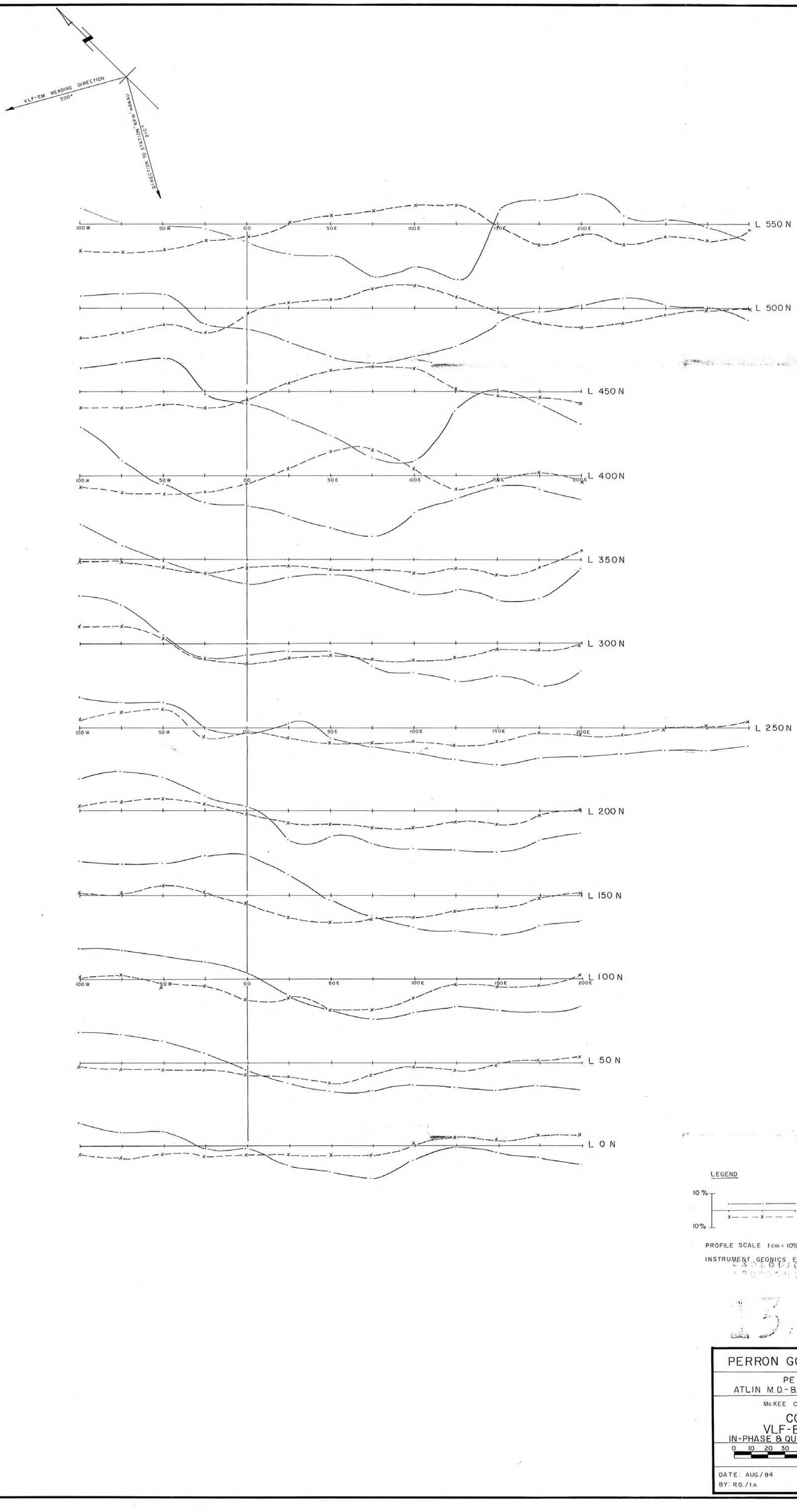
McKEE CREEK PROPERTY
ROCK CHIP & SOIL SAMPLE
LOCATION MAP

0 100 200 300 400

SCALE 1:10000

DATE AUG./84
BY: R.G./t.n. (after S. Lau)

FIGURE 10



LEGEND

10 % — IN PHASE PROFILE

10% — QUADRATURE PROFILE

PROFILE SCALE 1cm = 10%

INSTRUMENT GEONICS EM-16

PERRON GOLD MINES LTD.

PENNY M.C.
ATLIN M.D.-B.C. 104-N-5

McKEE CREEK PROPERTY

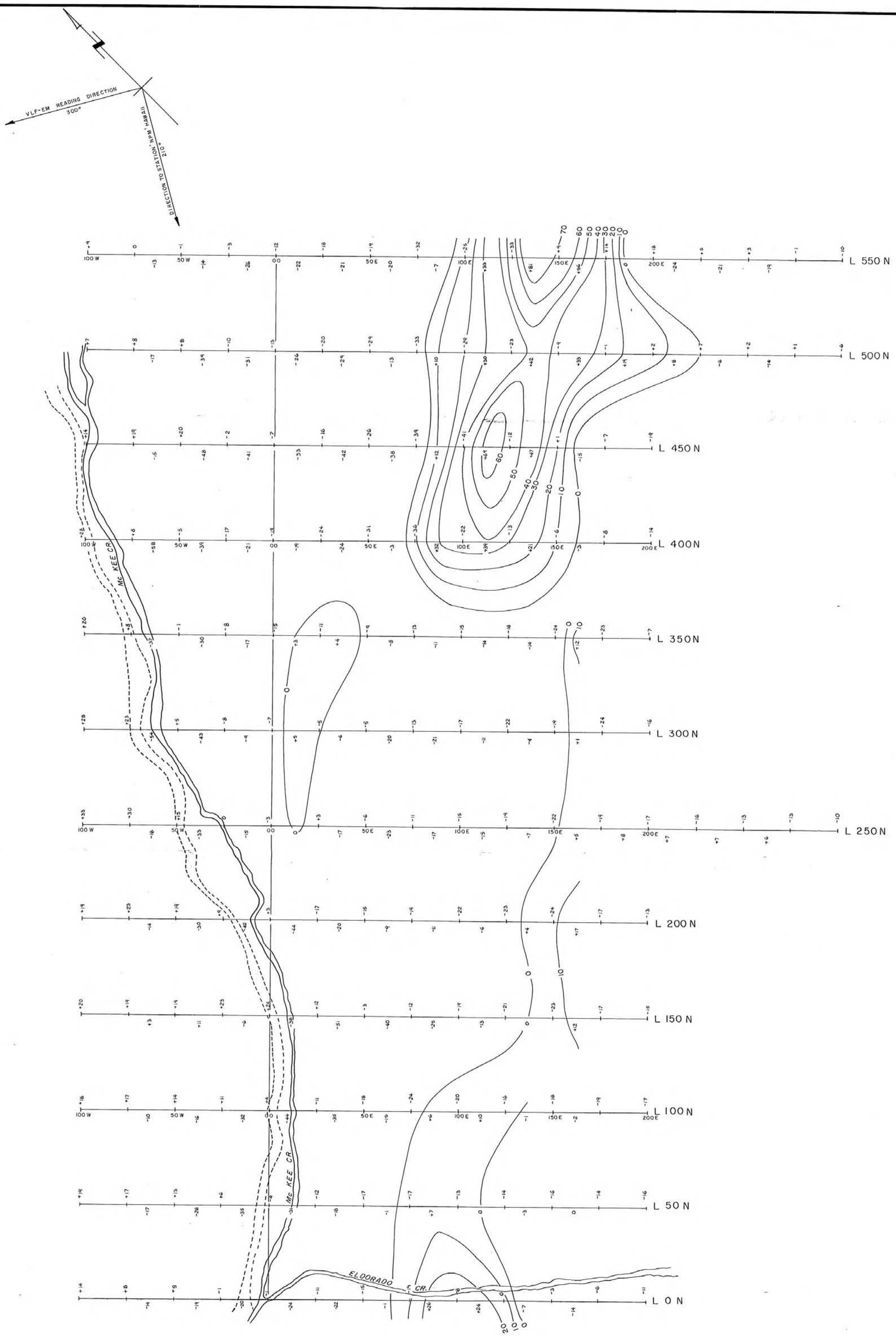
CON GRID
VLF-EM SURVEY
IN-PHASE & QUADRATURE PROFILES

0 10 20 30 40 50

SCALE 1:1000

DATE: AUG./84
BY: R.G./t.n.

FIGURE II



LEGEND:

INPHASE READINGS (%)

FRASER FILTER RESULTS (%)

INSTRUMENT - GEONICS EM-16

CONTOUR INTERVAL = 10%

GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,134

PERRON GOLD MINES LTD.

PENNY M.C.
ATLIN M.D. - B.C. 104 - N - 5

McKEE CREEK PROPERTY

CON GRID
VLF-EM SURVEY
FRASER FILTER CONTOURS (%)

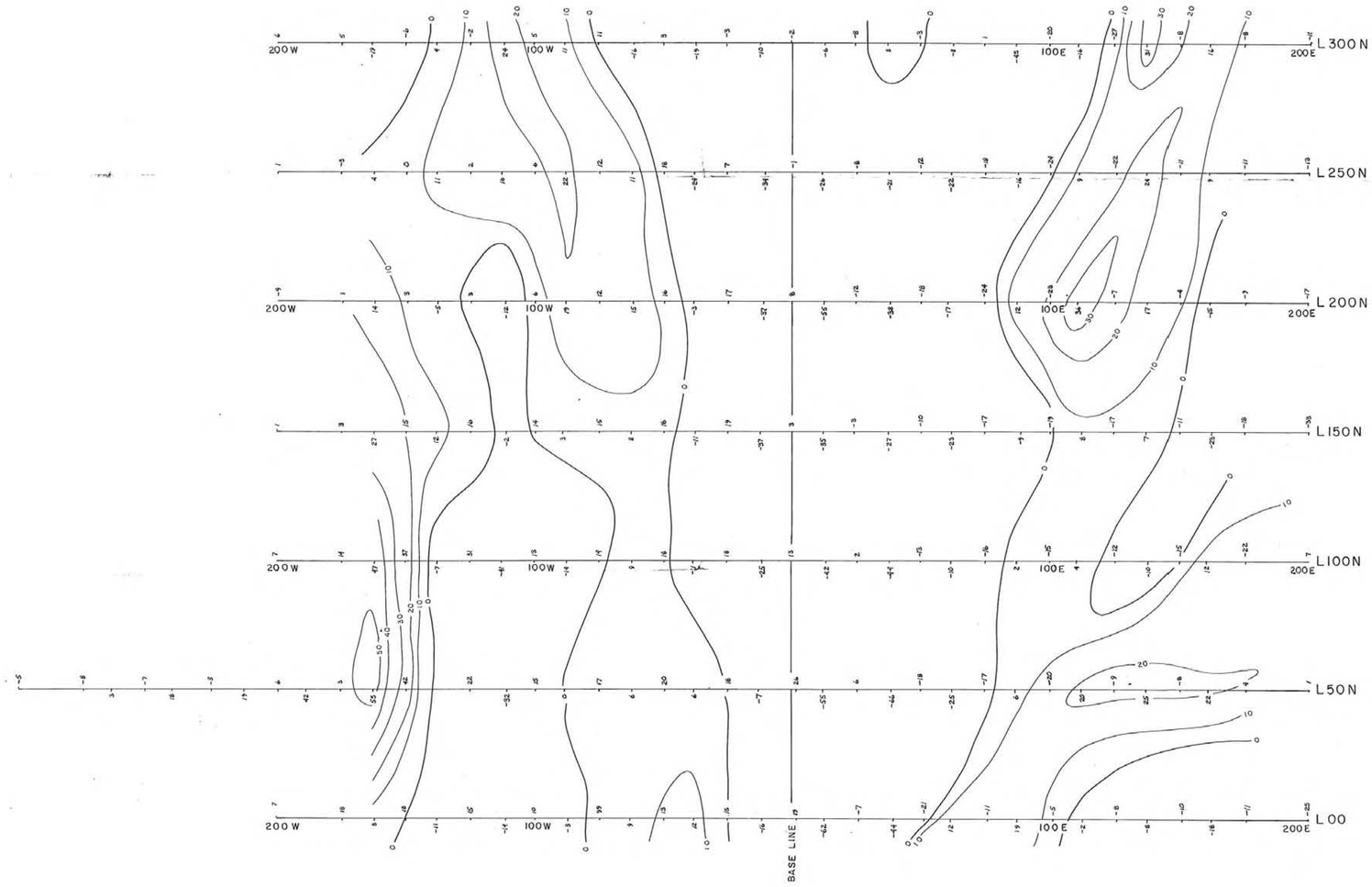
0 10 20 30 40 50

SCALE 1:1000

DATE: AUG./84
BY: R.G./t.n.

FIGURE 12

TO STATION NPM 210°



LEGEND

INPHASE READINGS (%)

FRASER FILTER RESULTS (%)

INSTRUMENT - GEONICS EM-16

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PENNY M.C.

ATLIN M.D. - B.C. 104 - N - 5

McKEE CREEK PROPERTY

CHAL GRID
VLF-EM SURVEY

FRASER FILTER CONTOURS (%)

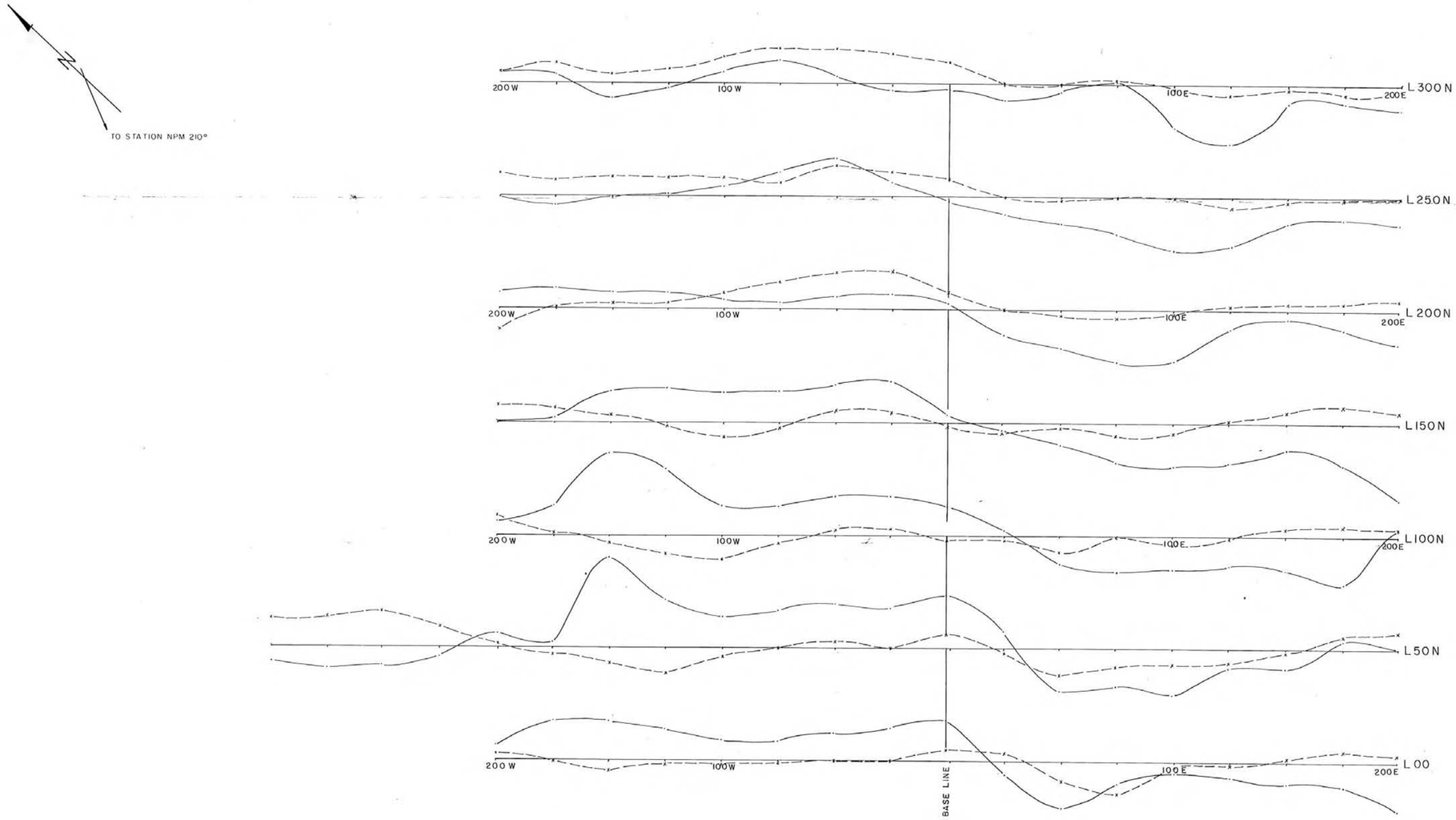
0 10 20 30 40 50

SCALE 1: 1000

DATE: AUG./84

BY: R.G./r.w.r.

FIGURE 14



LEGEND

+10%
-10%
INPHASE PROFILE
QUADRATURE PROFILE
PROFILE SCALE 1cm = 10%

INSTRUMENT GEONICS EM-16

PERRON GOLD MINES LTD.

PENNY M.C.
ATLIN M.D.- B.C. 104 - N - 5

McKEE CREEK PROPERTY

CHAL GRID
VLF-EM SURVEY
IN-PHASE & QUADRATURE PROFILES

0 10 20 30 40 50
SCALE 1: 1000

DATE: AUG./84
BY: R.G./t.n.

FIGURE 13