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1989

GEOCHEMICAL AND TRENCHING REPORT
On the ELK PROPERTY - SOUTH AREA

Similkameen Mining Division, B.C.
Siwash Lake Area, British Columbia
NTS: 92H-16W; Lat. 49°50'N; Long. 120°19'W

DECEMBER, 1989 (BC ASSESSMENT REPORT)

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Field :	1
Cordilleran:	Original
Total:	7 reports

1989

GEOCHEMICAL AND TRENCHING REPORT ON THE ELK PROPERTY - SOUTH AREA

Similkameen Mining Division, B.C.
Siwash Lake Area, British Columbia
Latitude 49°50'N; Longitude 120 °19'W.
NTS: 92H-16W

For

FAIRFIELD MINERALS LTD.
Vancouver, British Columbia

and

PLACER DOME INC.
Vancouver, British Columbia

By

W. Jakubowski, B.Sc.

CORDILLERAN ENGINEERING LTD.
1980-1055 W. Hastings St.
Vancouver, B.C. V6E 2E9

Date Submitted: December 20, 1989
Field Period: June 1 to September 29, 1989

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PLATES
(in pockets)

1.0 SUMMARY AND CONCLUSIONS

The Elk property consists of 79 contiguous mineral claims comprising 518 units in the Similkameen Mining Division (NTS: 92H-16W) located 40 kilometres west of Peachland, B.C. Initial staking was undertaken in November 1986 (160 units) with additions in 1987 (60 units), 1988 (32 units) and 1989 (194 units). A block comprising 72 units was optioned from Mr. Donald Agur of Summerland, B.C. in October, 1988. Claim acquisition and subsequent work have been conducted by Cordilleran Engineering Ltd. for Fairfield Minerals Ltd. Placer Dome Inc. entered into an option agreement on the property in March, 1988. This report describes work done on the Elk South area which includes Elk 19, 28, 31-42, 55-61, 66-70, ARP, Fergito Allendo I,II, Nanci P2, Tepee, and Siwash 50 claims.

The Elk claims cover forested gentle rolling hills with fair to poor bedrock exposure. The property is accessible by 50 kilometres of gravel road from Peachland, B.C. or 35 kilometres from the Princeton-Merritt highway. A new highway, currently under construction from Merritt to Westbank, passes through the northern claims.

Work conducted on the Elk South area in 1987 and 1988 consisted of geological mapping, prospecting, linecutting, soil sampling, excavator trenching and road construction. During the 1989 field season, linecutting, soil sampling, rock chip sampling and trench reclamation were undertaken.

The property is underlain by the Triassic Nicola Group volcano-sedimentary assemblage on the west and by granitic rocks of the Similkameen Intrusions on the east. Feldspar porphyry stocks of the Upper Cretaceous Otter Intrusions cut both the Nicola and Similkameen rocks. Andesite dykes intrude all of the above units and are interpreted to be of Tertiary Age.

Gold-silver mineralization on the Elk property is hosted by pyritiferous quartz veins and pyritiferous altered granite. The mineralized features generally trend northeasterly and are thought to be Late Cretaceous or Tertiary in age.

To date, mineralization has been located on the Elk 19 claim of the Elk South area. Trench chip samples taken in 1988 from quartz veins hosted by silicified granite returned values up to 5.90 gm/t Au over 0.5 m (0.172 oz/t over 1.6 ft).

A total of 3063 soil samples were collected in the Elk South area loosely defining six northeast and four southeast anomalous gold trends. One of the southeast trending soil anomalies has a strike length of 750 metres and includes values up to 2580 ppb Au.

SUMMARY AND CONCLUSIONS Continued

Sixty-three chip samples were collected from the Elusive Creek trenches to explore for the sources of strongly anomalous gold values in trench floor soil samples taken in 1988. Analyses included a value of 2402 ppb Au across one metre of fractured granite.

The results of exploration on the Elk property are very encouraging. The 1989 soil sampling program in the Elk South area defined strongly anomalous gold targets that warrant fill in soil sampling, geophysics and trenching. Rock sampling in the Elusive Creek trenches confirmed the anomalous gold values in northeast trending granite dykes and further sampling is required.

****

2.0 RECOMMENDATIONS

Approximately 2500 m of excavator trenching in 10 trenches is recommended to test for the source of a 750 m long, southeast trending gold soil geochemical anomaly located south of L500S between 1600E and 2400E.

Ground magnetometer and VLF EM surveys are recommended over the above anomaly to more clearly define its trend prior to trenching.

Detailed soil sampling on 50m x 50m grids is recommended around anomalous soil geochemical stations between 400W and 4600E to outline possible trench targets.

Mapping and sampling of bedrock exposures in road cuts between trenches EC88-3 and EC88-2 in the Elusive Creek North area is recommended to test the continuity of anomalous gold bearing lithologies.

Respectfully submitted

CORDILLERAN ENGINEERING LTD.

W. Jakubowski

Wojtek Jakubowski, B.Sc.,
Geologist

WJ/z
December, 1989

3.0 INTRODUCTION

This report describes the results of a soil geochemical and trenching program conducted on the Southern Elk property comprising Elk 19, 28, 31-42, 55-61, 66-70, ARP, Fregito Allendo I,II, Nanci P2 and Teepee claims during the period June 1 to September 29, 1989. The work was carried out by Cordilleran Engineering Ltd. for Fairfield Minerals Ltd. and Placer Dome Inc.

3.1 LOCATION AND ACCESS (Figure 1)

The Elk property is located 40 kilometres west of Okanagan Lake in southern British Columbia approximately midway between Merritt and Summerland, at latitude 49 degrees 50'N and longitude 120 degrees 19'W (Figure 1). The claims cover heavily forested rolling terrain of the Trepanege Plateau highlands. Elevations range from 1300 to 1750 metres above sea level. Portions of the property have been recently logged, and future operations are planned for the northern and southwestern claims. Access to the property is excellent with good gravel roads connecting to Princeton, Merritt, Peachland and Summerland. All of these centres are within one and one-half hours drive from the property. A new highway, the Okanagan Connector, currently under construction from Merritt to Westbank passes through the northern claims.

Field operations in 1989 were based out of a tent camp centrally located on the property.

3.2 CLAIM DATA (Figure 2)

The Elk South block consists of 48 two post claims, 26 four post claims and eight fractional claims comprising 475 units (Table 1). The Arp, Fergito Allendo 1, Fergito Allendo 2, Nanci P2, Tepee and Siwash 50 claims, consisting of 72 units, are subject to an option agreement with Mr. Donald Agur of Summerland B.C.

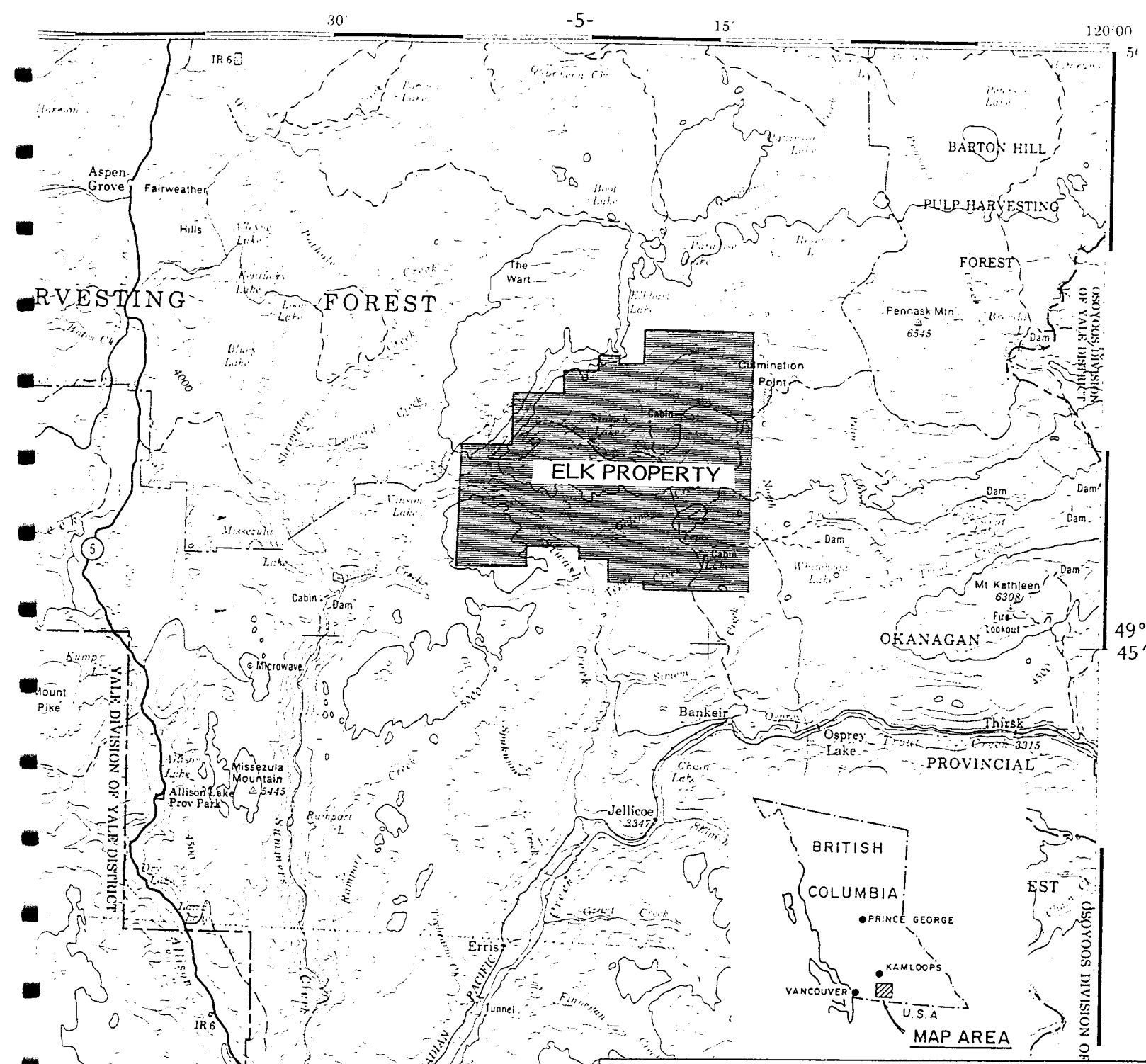
INTRODUCTION Continued

Table 1: **CLAIM DATA as at October 26, 1989**

32 Claims (219 Units + 13 2-Post Claims)
NTS: 92H-16W
Similkameen Mining Division, British Columbia

CLAIM	UNITS	RECORD NO.	EXPIRY DATE
ELK 19	20	2739	28 NOV 1996
ELK 28	20	3033	24 SEP 1996
ELK 31	2-post	3164	17 AUG 1996*
ELK 32	2-post	3165	17 AUG 1996*
ELK 33 FR	1	3202	28 SEP 1996*
ELK 34	2-post	3211	29 SEP 1996*
ELK 35	2-post	3210	29 SEP 1996*
ELK 36	12	3242	2 NOV 1992**
ELK 37	15	3243	31 OCT 1992**
ELK 38	16	3333	7 MAY 1993**
ELK 39	16	3334	7 MAY 1993**
ELK 40	12	3335	7 MAY 1993**
ELK 41	20	3337	9 MAY 1990
ELK 42	12	3338	9 MAY 1990
ELK 55	2-post	3411	5 JULY 1993**
ELK 56	2-post	3412	5 JULY 1993**
ELK 57	2-post	3413	5 JULY 1993**
ELK 58	2-post	3414	5 JULY 1993**
ELK 59	2-post	3415	5 JULY 1993**
ELK 60	2-post	3416	5 JULY 1993**
ELK 61	2-post	3417	5 JULY 1993**
ELK 66	2-post	3422	7 JULY 1993**
ELK 67FR	1	3423	7 JULY 1993**
ELK 68FR	1	3424	7 JULY 1993**
ELK 69	2-post	3425	7 JULY 1993**
ELK 70FR	1	3426	7 JULY 1993**
ARP	20	719	13 SEP 1996*
FERGITO ALLENDO 1	20	720	13 SEP 1996*
FERGITO ALLENDO 2	18	721	13 SEP 1996*
NANCI P2	10	691	13 AUG 1996*
TEEPEE	2	695	13 AUG 1996*
SIWASH 50	2	1770	10 NOV 1993

*Pending acceptance of report due Nov.13/89;** report due Jan.31/90



FAIRFIELD MINERALS LTD.

ELK PROPERTY

LOCATION MAP

SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA

N.T.S. 92H 16W

Scale: 1:250,000

CORDILLERAN ENGINEERING LTD.
1980-1055 W. HASTINGS STREET
VANCOUVER, B.C.

DECEMBER, 1989

FIGURE 1

FAIRFIELD MINERALS LTD.

ELK PROPERTY

CLAIM MAP 19489

SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA

N.T.S. 92H/16W

SCALE - 1:50,000

CORDILLERAN ENGINEERING LTD.
1980-1055 W. HASTINGS STREET
VANCOUVER, B.C. V6E 2E9

DEC. 1989

FIG. 2

3.3 HISTORY:

The El Paso adit was driven into volcanic rocks in the area currently covered by the Elk 31 claim during the first half of the century. Quartz vein-hosted lead-zinc-silver-gold mineralization was encountered. No production of ore was achieved.

Don Agur of Summerland, B.C. has prospected and trenched the north and west parts of the present Elk property area as well as a large region to the south along Siwash Creek during the last 40 years.

Phelps Dodge Corporation of Canada Ltd. carried out copper exploration during 1972 which included mapping and soil geochemistry on the present Elk 19, 28, 31, 32, 34, 35, Siwash 50 and Arp claims.

Utah Mines Ltd. conducted mapping, geochemistry, IP geophysics and trenching to evaluate copper mineralization on the Siwash claim group which, in part, covered the present Siwash 50 and Elk 28 claims.

Brenda Mines Ltd. worked on the Siwash claim group and on the southern part of the present Elk property. A rigorous copper exploration program including mapping, soil geochemistry, geophysics, trenching and diamond drilling was undertaken between 1979 and 1981. Work was done on the area currently covered by the Elk 19, 28, 31 to 37, 41, 42, Arp, Fergito Allendo I, II, Nanci P2 and Tepee claims.

Exploration for molybdenum was undertaken by Cominco Ltd. during 1980 on what is now the Elk 26, 27, 29, 43 to 45, 71 and 72 claims. Work included geological mapping and soil geochemistry.

No significant discoveries resulted from the above programs.

The Elk 1 to 27 claims were staked in November 1986 by Cordilleran Engineering Ltd. for Fairfield Minerals Ltd. to cover new showings of gold-silver mineralization hosted in pyritic quartz veins cutting a granite batholith and andesite dykes. Preliminary hand trenching and soil sampling were conducted.

During 1987 nine trenches, excavated to test prospecting and soil geochemical targets, exposed quartz veins and altered breccias hosted in granite. IP, magnetometer and VLF-EM geophysical surveys were carried out over the trenched areas. The Elk 28 to 30 claims were staked in September 1987 to acquire ground along projections of favourable geochemical trends.

The 1988 program consisted of soil sampling on the claims acquired in 1987 and trenching in Siwash North and Elusive Creek areas. Four kilometres of road was constructed for access and eleven trenches totalling 2784 metres were dug, mapped and sampled exposing quartz vein-hosted gold mineralization. The Elk 31 to 37 claims were staked to cover favourable areas.

3.4 1989 EXPLORATION PROGRAM

The Elk 38 to 73 claims were staked during 1989 to cover extensions of anomalous soil geochemical trends.

The exploration program in the Elk South area included soil sampling on the Elk 19, 28, 31-40, 55-61, Fergito Allendo I, II, Nanci P2, Tepee and Arp claims. A total of 35.55 km of baseline was cut and picketed at 25 metre stations for soil grid control. A total of 2396 soil samples were collected on 200m by 50m spacings and followed up with 667 detailed grid samples on 50m by 50m spacings.

Trenches EC88-1 and EC88-3 in the Elusive Creek area were cleaned and chip sampled in sections which had returned anomalous gold values from trench floor soil samples.

****

4.0 GEOLOGY

4.1 REGIONAL GEOLOGY (Figure 3)

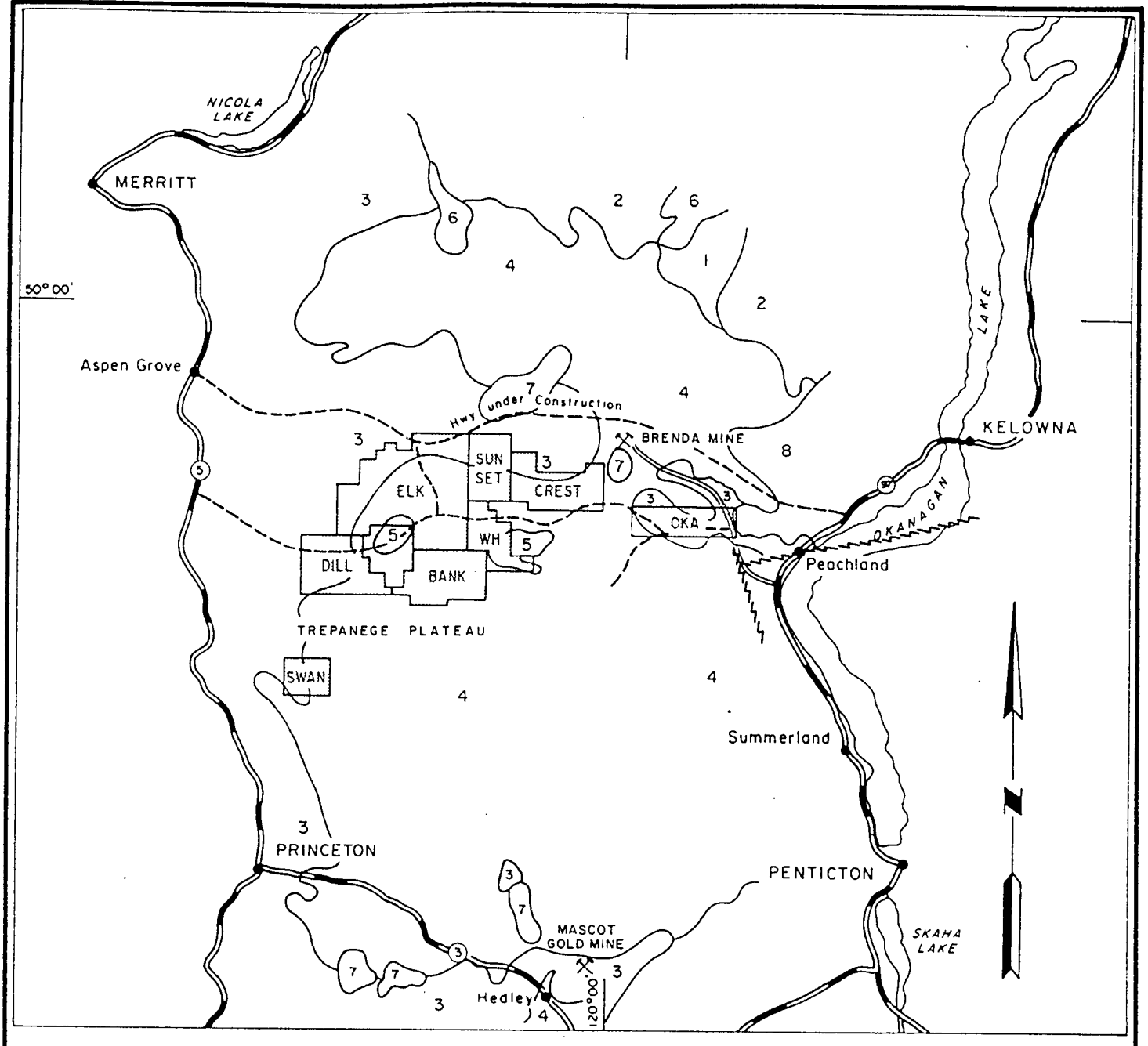
The Elk property is located in the Intermontane tectonic belt of south central B.C. Princeton Geological Map 888A by H.M.A. Rice (1947) shows the area to be underlain by Upper Triassic volcanics and sediments of the Nicola Group and by Jurassic granites and granodiorites of the Coast Intrusions. The contact between these units trends northeasterly across the property. Upper Cretaceous feldspar porphyry stocks and dykes of the Otter Intrusions occur throughout the claims and a large body to the south is spatially associated with many known showings of copper, lead, zinc and silver.

4.2 PROPERTY GEOLOGY

The western claims area is underlain by steeply west-dipping andesitic to basaltic flows, agglomerates, tuffs and minor siltstone and limestone units of the Upper Triassic Nicola Group. The eastern half of the property is underlain by Jurassic granitic rocks of the Similkameen Intrusions. The contact between these two groups trends approximately north-northeast. Upper Cretaceous to Tertiary feldspar porphyry and quartz-feldspar porphyry stocks and dykes of the Otter Intrusions cut both of the above groups. Breccias with granitic matrices containing rounded volcanic, dioritic and granitic fragments crosscut Nicola Group rocks, Similkameen and Otter Intrusions. Andesite dykes are the youngest units mapped, post dating all of the above. Mineralization appears to be spatially associated with these (Tertiary?) andesite dykes.

The Nicola Group lithologies mapped on the Elk property consist of 1) dark greyish green, massive basaltic andesite, 2) dark greyish green, massive basaltic andesite porphyry containing pyroxene and/or amphibole phenocrysts, 3) dark greyish green basaltic andesite containing 0.5 mm laminae of sand-sized black grains, 4) pale grey-green siliceous laminated tuff, 5) brownish green to pale green agglomerates containing fragments from 5 to 50 cm in size. Nicola Group rocks are occasionally silicified, carbonitized or epidote altered. Iron oxide staining and finely disseminated pyrite are common.

Similkameen Intrusions on the Elk property are pinkish grey, coarse grained and equigranular containing quartz, orthoclase, plagioclase and biotite. Petrographic analysis indicates a composition of quartz monzonite. Pink, sugary textured aplite dykes cut the quartz monzonite and were probably a late phase of the Similkameen event. Quartz diorite related to the Similkameen



LEGEND

8	Eocene/Oligocene	Andesite flows
7	Miocene/earlier	Princeton Group - shale, sandstone
6	Miocene/earlier	Kamloops Group - rhyolite, andesite
5	Upper Cretaceous	Otter Intrusions - granite
4	Jurassic/Cretaceous	Coast Intrusions - granite, granodiorite
3	Upper Triassic	Nicola Group - andesite, basalt, sediments
2	Carbonaceous	Cache Creek Group - argillite, quartzite, andesite
1	Pre Permian	Chapperon Group - schist

Compiled from GSC Maps 15-1961, 1059A, 888A, 886A

FAIRFIELD MINERALS LTD.

PROPERTY LOCATION AND REGIONAL GEOLOGY

ELK, DILL, BANK, WH, SUNSET, CREST, OKA & SWAN PROPERTIES

THOMPSON-OKANAGAN AREA, B.C.

Scale : 1: 633,600

0 10 20 30

Scale in Kilometres

CORDILLERAN ENGINEERING LTD.
1980-1055 W. HASTINGS STREET
VANCOUVER, B.C. V6E 2E9

DECEMBER 1989

FIGURE 3

GEOLOGY
Property Geology Continued

Intrusions is far less common and occurs as stocks. It is pale grey, generally medium to fine grained and contains visible quartz, plagioclase, biotite and amphiboles. Dykes of quartz monzonite and hornblende-biotite quartz monzonite have also been mapped. They are medium greenish grey, medium grained and contain feldspar and occasionally hornblende phenocrysts. Alteration assemblages include weak to strong propylitic, argillic, phyllic and silicic, noted predominantly in the trenched areas where these recessive features have been exposed.

The Otter Intrusions comprise quartz-feldspar porphyry, feldspar porphyry and quartz-biotite-feldspar porphyry dykes and stocks. Quartz-feldspar porphyry on the property is extensively clay altered and contains feldspar phenocrysts up to five cm, averaging about five mm. The altered groundmass is beige in colour and extremely friable. Feldspar porphyry rocks range from medium grey to red and contain feldspar phenocrysts 2 to 5 mm in size that vary in quantity from 3 to 40 percent. Petrographic analysis of the red, medium packed feldspar porphyry indicated that it is syenitic in composition. Quartz-biotite-feldspar porphyry is greyish beige and is typified by small biotite grains with equal quantities of fine quartz and feldspar phenocrysts.

The breccias noted on the property have granitic matrices and contain rounded to sub-rounded granite, diorite and andesite clasts varying in size from 5 to 25 cm. The elongate breccia bodies vary in width from 5 to 30 metres and trend northeasterly. These zones may be portions of major linear fault structures, however displacement, if any, is not readily apparent.

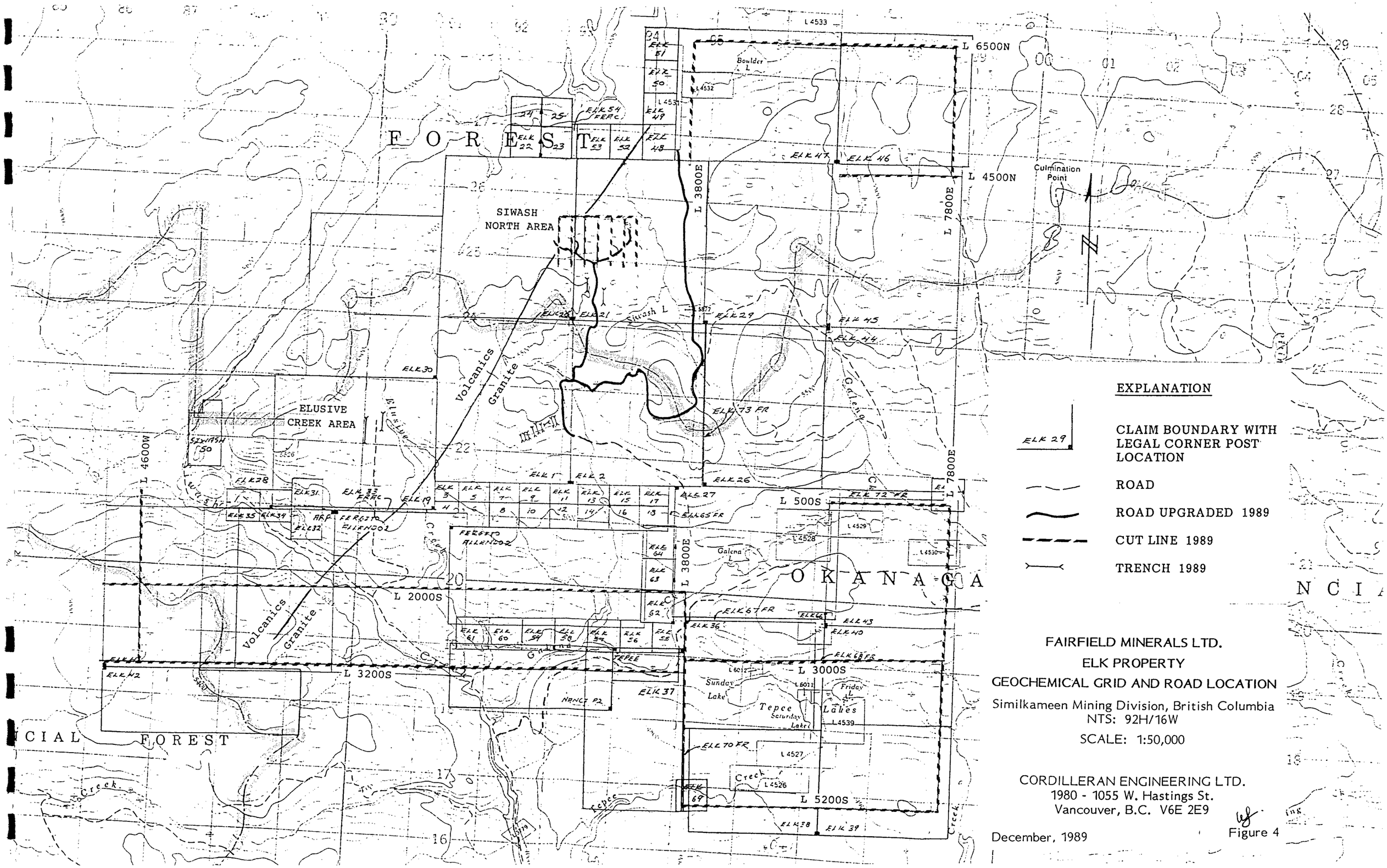
Andesite dykes are dark greyish green, fine grained and vary in thickness from 30 cm to 5 metres. They are commonly muscovite altered and brown weathering. Strong orange and blue clay alteration has also been noted in these rocks.

4.3 STRUCTURAL GEOLOGY (Figure 4)

Nicola Group rocks on the west side of the property dip approximately 60 degrees to the west forming the east limb of a syncline mapped by Rice. The syncline trends roughly north-south and its axis passes about five km west of the claims.

The Elk property topography defines several linear structures, the most prominent being the north to northeast trending features occupied by Siwash Creek, Elusive Creek and a parallel creek 2.5 kilometres to the east. Subtle northeast trends are evident on aerial photographs and are commonly associated with mineralization.

Deformation in the area of the property appears to be minimal.



EXPLANATION

ELK 29 — CLAIM BOUNDARY WITH LEGAL CORNER POST LOCATION

ROAD

ROAD UPGRADED 1989

CUT LINE 1989

TRENCH 1989

FAIRFIELD MINERALS LTD.

ELK PROPERTY

GEOCHEMICAL GRID AND ROAD LOCATION

Similkameen Mining Division, British Columbia
NTS: 92H/16W

SCALE: 1:50,000

CORDILLERAN ENGINEERING LTD.
1980 - 1055 W. Hastings St.
Vancouver, B.C. V6E 2E9

December, 1989

Figure 4

GEOLOGY Continued

4.4 MINERALIZATION

Significant gold mineralization has been discovered on the north part of the Elk property hosted in quartz veins and phyllic altered, pyritic granite.

Quartz vein hosted mineralization typically constitutes free gold associated with pyrite or pyritic boxworks in light to medium grey quartz. Veins occur mainly in argillic to phyllic alteration zones in the Similkameen granites but have been mapped cutting Tertiary andesite dykes and Nicola volcanics. They vary in width from 1 cm to 40 cm and generally trend east-northeast dipping to the south.

In the Elusive Creek area high gold levels, averaging 525 ppb Au, were returned from medium grained silicified granite dykes showing moderate epidote and potassic alteration. The best results were from samples of quartz veined or hematite stained granite. The majority of veins observed in this area trend southeasterly and average 2 cm in thickness.

****

5.0 GEOCHEMISTRY

5.1 INTRODUCTION (Figure 4)

During 1989, 3063 soil samples were collected on the Elk 19, 28, 31-42, 55-61, 66-70, Arp, Fergito Allendo I,II, Nanci P2 and Tepee claims and analyzed for gold. Sixty-three chip samples were collected from the Elusive Creek trenches and also analyzed for gold.

During the period 1986 to 1988, the Elk property was sampled with 5959 soils at 50 metre stations on 200 metre line intervals. Fill-in grids at 25m by 50m spacings, established around samples which contained greater than 50 ppb Au, added another 4238 for a total of 10,197 soil samples.

5.2 SOIL GEOCHEMISTRY

During 1989, 2396 soil samples were collected from 50 metre by 200 metre grids on the Elk South claims. Fill-in sampling on 50 metre by 50 metre spacings around samples containing greater than 20 ppb Au contributed another 667 samples.

Sample lines, located by hip chain and compass, were oriented north-south and stations were marked with numbered flagging tape. Samples were collected from the "B" soil horizon and placed in kraft paper bags numbered with grid coordinates.

Samples were partially dried in camp and shipped to Acme Analytical Laboratories in Vancouver for gold analysis. At the lab, soils were dried and sieved to obtain 10 grams of minus 80 mesh size fraction. This portion was then ignited to 600 degrees Celsius and digested with hot aqua regia. The metal was extracted by MIBK (methyl isobutyl ketone) and then analyzed for gold by graphite furnace atomic absorption.

GEOCHEMISTRY Continued

5.3 ROCK GEOCHEMISTRY

In Elusive Creek trenches EC88-1 and EC88-3 63 chip samples were collected to help outline the sources of strongly anomalous gold values from trench floor soil samples collected in 1988. Six continuous chip and 57 intermittent chip samples were taken over intervals averaging one metre, using a sledge hammer and cold chisel. Aluminum tags with inscribed sample number were nailed into the rock at either end of the sample location. Each sample, containing three to four kilograms of chips, ranging from sand size to five centimetres, was placed into a plastic sample bag and shipped to Acme Analytical Laboratories in Vancouver for gold analysis. At the lab, rocks were ground to minus 100 mesh and a 20 gm cut was separated and fused with a Ag inquart with fire assay fluxes. After cupulation, the dore bead was dissolved and analyzed by atomic absorption.

5.4 RESULTS

Gold values from 1989 soil sampling on the Elk South claims are plotted on Plates 1, 2 and 3. Values returned from chip sampling in the Elusive Creek trenches are plotted on Plate 4.

Numerous northeast and southeast anomalous gold trends were defined by soil sampling, with the highest concentration occurring between 400W and 4400E. The strongest results are located between 1400E and 2800E, from 500S to 1500S, and include values up to 2580 ppb Au. Fill-in sampling at 50m stations with 50m line spacing was completed between 1250E and 3350E, from 500S to 1500S, to help define the anomalous areas. A 750m long south-southeast trending zone with values greater than 20 ppb Au was delineated. The gold results within this anomaly average 217 ppb and include values of 2580, 590, 410 and 280 ppb. Initial sampling outlined another strong southeast trending zone 1 km in length with values up to 1660 ppb Au located 1.5 km to the southeast. Fill-in sampling at 50m spacing is required to confirm the continuity of the trend. All these anomalies overlie granitic rocks of the Similkameen intrusions. The density of anomalous soil stations decreases significantly in the area underlain by Nicola volcanics.

Results from trench rock sampling are discussed in Chapter 6.2 Trenching Results.

****

6.0 EXCAVATOR TRENCHING

6.1 INTRODUCTION

The Elusive Creek North area was trenched in 1988 to explore for the sources of strong northeast trending gold soil geochemical anomalies. East-northeast trending Jurassic granitic dykes cutting Triassic volcanic rocks were exposed. Gold mineralization (5.90 gm/t over .5m, .172 oz/t over 1.6 ft) was found to be associated with quartz "pods" up to 25 cm wide in granitic rocks. Above background gold values were also returned from argillic altered and silicified granitic dykes.

Soil profile samples were collected from the walls of the trenches over 50 cm intervals at 10m stations to determine the direction of transport of the gold through the overburden. A number of soil samples collected from the base of the trench wall returned high gold values for which no clear geological feature could be defined as a source. Sloughed material was removed from the trenches with an excavator in 1989 and the untested areas of anomalous soil results were sampled. Sixty-three chip and continuous chip samples were collected from trenches EC88-1 and EC88-2.

Sample locations and results are plotted on Plate 4. The majority of the samples are intermittent chips where fragments of rock were broken off at roughly 10 cm intervals along the sample length. These sample numbers have a "G" suffix (EC881-1G) to indicate that they are "grab" chips. Those numbered without a suffix (EC883-9) are continuous chips which were collected along the entire length of the outlined sample location. In both cases a three to five kilogram sample was collected.

Elusive Creek trenches EC88-1 to EC 88-5, totalling 1230 metres, were backfilled on completion of the sampling.

6.2 RESULTS

Three strings of contiguous one metre chip samples were collected from the north half of trench EC88-1. Samples EC881-1G to 11G were taken from a granitic dyke to test for the source of a 2720 ppb gold value in trench floor soil sample TS1157. Chip samples returned weak values up to 523 ppb Au. This indicates that the source was not within the zone spanned by the samples but may be associated with a .5cm quartz vein located seven metres to the south. A chip sample string of 11 samples, EC881-12G to 22G tested for the source of a

EXCAVATOR TRENCHING
Results Continued

1800 ppb Au value in trench floor soil sample TS1151. Chip sample EC881-21G returned 2402 ppb Au over an interval of 1.0 metre from fractured granite five metres to the north of the soil anomaly. The other samples in the sequence averaged 354 ppb Au, well above background. The third sample string, EC881-23G to 36G was taken to test for anomalous gold content in the granite. Above background results were returned averaging 322 ppb Au over 14 metres.

Fill-in chip sampling was also undertaken in trench EC88-3, 200 metres to the east of EC88-1 to test for the source of a 1420 ppb Au value in trench floor soil sample TS1216. Twenty-two chip samples and five continuous chip samples were taken from fine grained granitic and volcanic rocks centered around sample EC163, 85 metres from the north end of the trench. All samples except EC881-14G were taken across one metre intervals. Samples EC881-5G, 6G and 7G averaged 1868 ppb Au over three metres from granite adjacent to an andesite dyke. All samples in the string were above background and averaged 658 ppb Au over the 27.5 m length.

In summary, the sampling indicated that the medium to fine grained granite contains anomalous amounts of gold and, in conjunction with the small quartz veins, is probably responsible for the strongly anomalous gold soil geochemistry in the Elusive Creek area.

****

7.0 REFERENCES

RICE, H.M.A.:

1947: Geology and Mineral Deposits of the Princeton Map Area, British Columbia; G.S.C., Memoir 243.

CORDILLERAN ENGINEERING LTD:

1988: 1987 Geological, Geochemical and Prospecting (Assessment) Report on the Elk Claim Group, Similkameen Mining Division, B.C., for Fairfield Minerals Ltd.

1989: 1988 Geological, Geochemical and Trenching (Assessment) report on the Elk Property, Similkameen Mining Division, B.C. for Fairfield Minerals Ltd.

****

9.0 STATEMENT OF COSTS

SALARIES (Field)			
B.Brown, Cook	16 days x$108/d x $1.12*	1,935.36	
P.Conroy, Geologist	12.5 days x 108/d x 1.12	1,512.00	
S.Crawford,Sampler	3 days x 72/d x 1.12	241.92	
A.Mitchell, Sampler	23 days x 72/d x 1.12	1,854.72	
D.Morrison, Sampler	21.5 days x 72/d x 1.12	1,733.76	
S.Riley, Sampler	20 days x 84/d x 1.12	1,881.60	
J.Smith, Sampler	4 days x 72/d x 1.12	322.56	
C.Young, Sampler	13 days x 72/d x 1.12	1,048.32	$ 10,530.24
*Benefits factor			
TRANSPORTATION	Truck Rental	2,195.27	
	Fuel	498.83	2,694.10
CAMP SUPPORT	Groceries	3,795.30	
	Camp equipment rental	3,232.59	
	Radio telephone	1,554.26	
	Personnel travel	679.81	
	Hardware, field gear	1,428.93	10,690.89
LINECUTTING	35.55 Km		20,227.95
TRENCHING			
Excavator and operator	107 hrs x $82.50/hr	8,827.50	
Operator Travel Time	11 hrs x 25.00/hr	275.00	
Excavator mobilization	8 hrs x 100.00/hr	800.00	9,902.50
GEOCHEMICAL ANALYSIS			
3063 soil sample Au analysis	x $5.35/sample	16,387.05	
63 rock sample Au analysis	x 9.00/sample	567.00	16,954.05
LIABILITY AND ACCIDENT INSURANCE	.....		209.85
FREIGHT, EXPRESS, DELIVERY	.....		600.88
OFFICE SUPPLIES, PRINTING, PHOTOGRAPHY	.....		322.88
DRAFTING, COMPUTER PLOTTING	.....		292.30
	TOTAL EXPENDITURES		**$72,425.64**

W. Johnson

10.0 LIST OF PERSONNEL AND CONTRACTORS

PERSONNEL:

Name/address	Position	Field Dates Worked
B. Brown Vancouver, BC	Cook	May 15 - Aug 10, 1989
P. Conroy Burnaby, BC	Geologist	May 15 - Nov 4, 1989
S. Crawford N.Vancouver, BC	Sampler	Aug 25 - Nov 4, 1989
W. Jakubowski Vancouver, BC	Geologist/Supervisor	Jun 20 - Nov 5, 1989
A. Mitchell Vancouver, BC	Sampler	May 25 - Jul 14, 1989
D. Morrison Vancouver, BC	Sampler	May 26 - Aug 24, 1989
S. Riley Vancouver, BC	Sampler	May 26 - Sept 1, 1989
M.Stammers N.Vancouver, BC	Geologist/Supervisor	May 15 - Jun 13, 1989
J.Smith Vancouver, BC	Sampler	May 26 - Jun 16, 1989
C.Young Vancouver, BC	Sampler	Jun 20 - Sept 1, 1989

CONTRACTORS:

Gordon Clark & Associates Ltd. Whitehorse, Y.T.	Linecutting	5 men: May 28-Jul 1,1989
W. Dobbin Construction Ltd. Kelowna, B.C.	Excavator Trenching	1 man: Jul 24-Aug 15,1989

****

11.0 WRITER'S CERTIFICATE

I, Wojtek Jakubowski of Vancouver, British Columbia hereby certify that:

1. I am a geologist residing at #17 1435 West 10th Avenue and employed by Cordilleran Engineering Ltd. of 1980 - 1055 West Hastings Street, Vancouver, B.C.

2. I have received a B.Sc. degree in Geological Sciences from McGill University, Montreal, Quebec in 1979.

3. I have practiced my profession for 10 years in Quebec, Northwest Territories, Yukon Territory and British Columbia.

4. I am the author of this report and the supervisor of the field work conducted on the Elk South area claim group by Cordilleran Engineering Ltd. during the period June 1 to September 29, 1989.

CORDILLERAN ENGINEERING LTD.

W. Jakubowski

Wojtek Jakubowski, B.Sc.
Geologist

WJ/z
December, 1989.
Vancouver, B.C.

11.0 ANALYTICAL RESULTS

Trench Rock Samples

ACME ANALYTICAL LABORATORIES
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: JUL 28 1989
DATE REPORT MAILED: Aug. 4/89..

GEOCHEM PRECIOUS METALS ANALYSIS

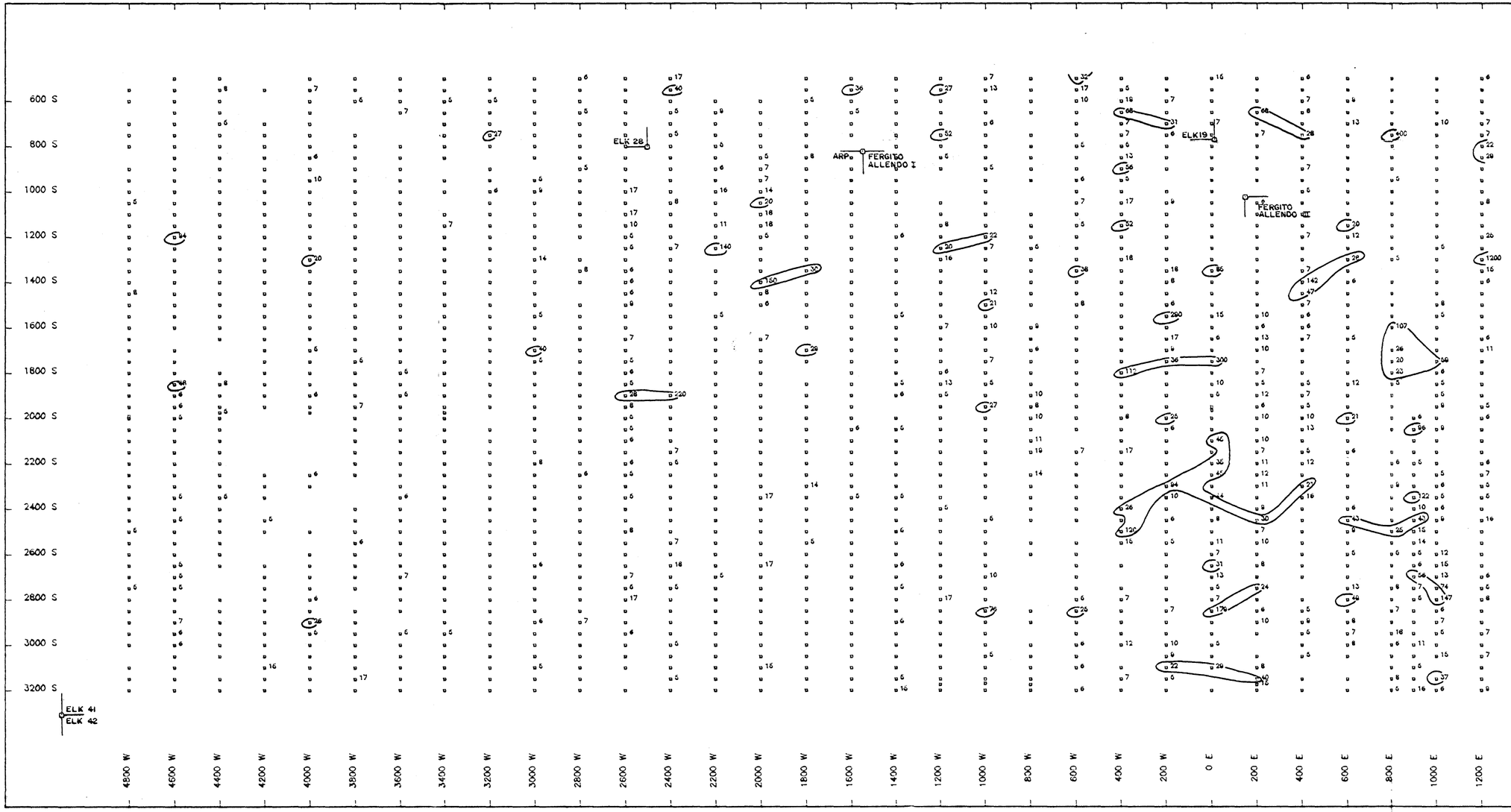
AU** ANALYSIS BY FA+AA FROM 20 GM SAMPLE.
- SAMPLE TYPE: ROCK

SIGNED BY.. C. Leong D.TOYE. C.LEONG. J.WANG: CERTIFIED B.C. ASSAYERS

CORDILLERAN ENGINEERING LTD. PROJECT ELK T89-10,11,12 FILE # 89-2534

SAMPLE#	Au** PPB
EC881-1G	10
EC881-2G	4
EC881-3G	8
EC881-4G	58
EC881-5G	9
EC881-6G	5
EC881-7G	9
EC881-8G	17
EC881-9G	523
EC881-10G	7
EC881-11G	10
EC881-12G	558
EC881-13G	312
EC881-14G	111
EC881-15G	350
EC881-16G	296
EC881-17G	768
EC881-18G	129
EC881-19G	89
EC881-20G	481
EC881-21G	2402
EC881-22G	444
EC881-23G	561
EC881-24G	279
EC881-25G	243
EC881-26G	392
EC881-27G	421
EC881-28G	468
EC881-29G	247
EC881-30G	336
EC881-31G	56
EC881-32G	150
EC881-33G	395
EC881-34G	265
EC881-35G	397
EC881-36G	305
EJ901R	280

SAMPLE#	Au** PPB
EC883-1G	294
EC883-2	656
EC883-3G	207
EC883-4G	640
EC883-5G	2198
EC883-6G	1478
EC883-7G	1929
EC883-8G	327
EC883-9	331
EC883-10G	127
EC883-11G	225
EC883-12G	364
EC883-13	201
EC883-14	611
EC883-15G	248
EC883-16	885
EC883-17	313
EC883-18G	990
EC883-19G	1046
EC883-20G	491
EC883-21G	96
EC883-22G	279
EC883-23G	157
EC883-24G	337
EC883-25G	1159
EC883-26G	354
EC883-27G	1825
SS894-45	49
SS894-46	13
SS894-47	23
SS894-48	10
SS894-49	4
SS894-50	4
SS894-51	17
SS894-52	4
SS894-53	1
SS894-54	8



19,489

SYMBOLS

AU PPB

FERGITO ALLENDO I — LEGAL CORNER POST

VALUES LESS THAN 5PPB AU NOT PLOTTED

AU CONTOURED AT 20PPB

REFER TO FIGURE 4 FOR LOCATION

FAIRFIELD MINERALS LTD.

ELK PROPERTY

ELK SOUTH AREA WEST HALF

AU SOIL GEOCHEM

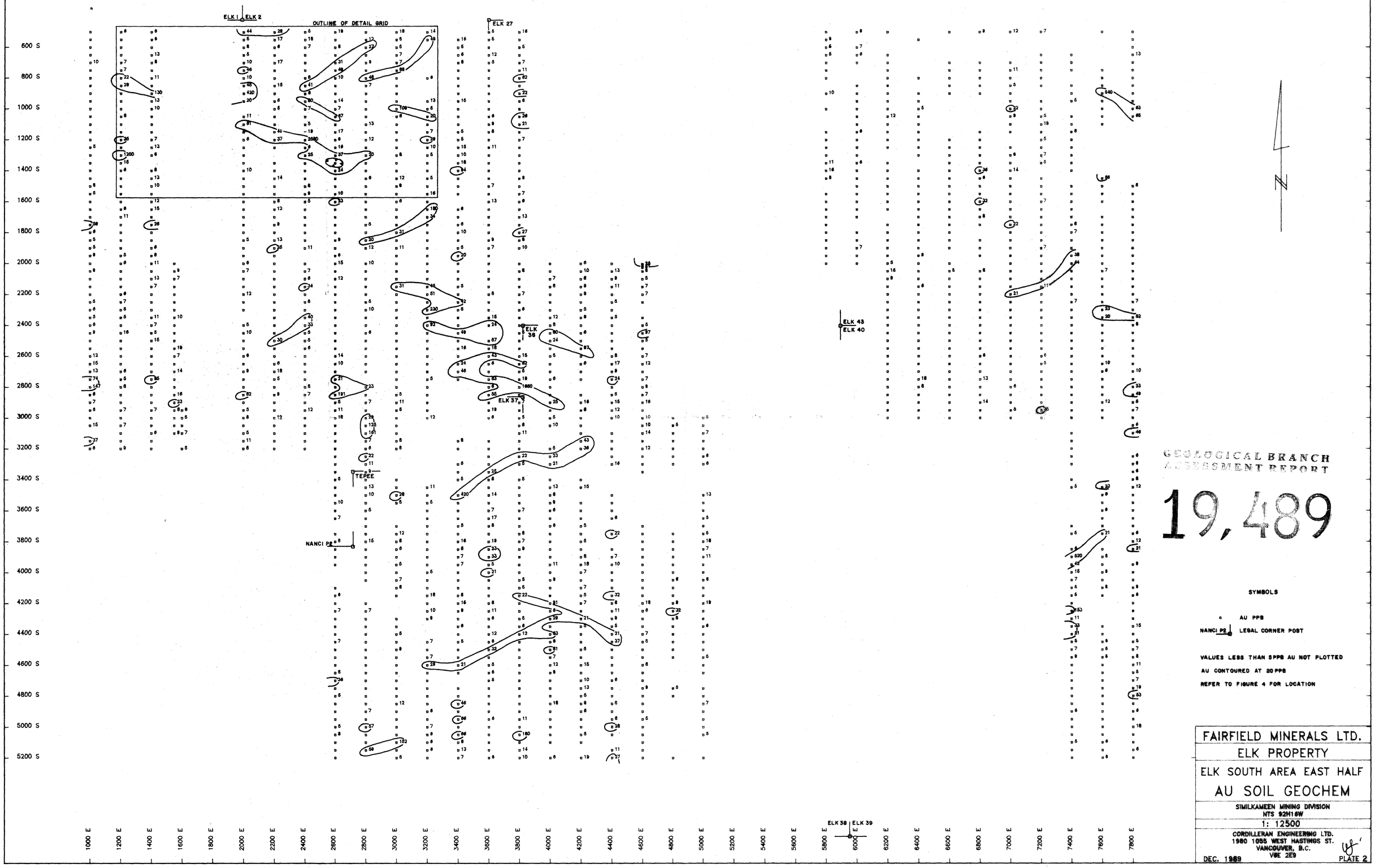
SIMILKAMEEN MINING DIVISION
NTS 92H16W

1:12500

CORDILLERAN ENGINEERING LTD.
1980 1055 WEST HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

DEC. 1989

PLATE 1



SYMBOLS

AU PPB

NANCI P2 LEGAL CORNER POST

VALUES LESS THAN 5PPB AU NOT PLOTTED

AU CONTOURED AT 20 PPB

REFER TO FIGURE 4 FOR LOCATION

FAIRFIELD MINERALS LTD.

ELK PROPERTY

ELK SOUTH AREA EAST HALF

AU SOIL GEOCHEM

SIMILKAMEEN MINING DIVISION
NTS 92H/8W

1: 12500

CORDILLERAN ENGINEERING LTD.
1980 1055 WEST HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

DEC. 1989

PLATE 2

TRENCH FLOOR SOIL SAMPLE RESULTS

Au ppb 2000.0 0.00

TRENCH EC88-1

TRENCH EC88-1
SIGNIFICANT RESULTS

SAMPLE No	INT(m)	Au ppb	Au oz/t
EC002	1.0	960	
EC003	1.6	920	
EC004	0.5	1750	0.042
EC005	1.0	380	
EC006	1.0	830	
EC007	0.5	5480	0.172
EC008	1.0	1020	0.036
EC285	1.0	1170	0.039
EC009	1.0	510	
EC010	0.7	1210	
EC011	1.2	660	
EC286	1.0	350	
EC013	1.0	1120	0.030
EC287	1.0	520	
EC024	1.1	1130	
EC030	1.4	1790	0.057
EC032	0.5	510	
EC037	1.0	310	
EC038	1.0	860	
EC039	0.7	1580	0.050
EC040	1.0	2830	0.081
EC288	1.0	400	
EC042	0.5	2460	0.067

1067 ppb / 3.1

1989 SAMPLING

EC881-1G	1.0	10	
-2G	1.0	4	
-3G	1.0	8	
-4G	1.0	58	
-5G	1.0	9	
-6G	1.0	5	
-7G	1.0	9	
-8G	1.0	17	
-9G	1.0	523	
-10G	1.0	7	
-11G	1.0	10	
-12G	1.0	558	
-13G	1.0	312	
-14G	1.0	111	
-15G	1.0	350	
-16G	1.0	296	
-17G	1.0	768	
-18G	1.0	129	
-19G	1.0	89	
-20G	1.0	481	
-21G	1.0	2402	
-22G	1.0	444	
-23G	1.0	561	
-24G	1.0	279	
-25G	1.0	243	
-26G	1.0	392	
-27G	1.0	421	
-28G	1.0	468	
-29G	1.0	247	
-30G	1.0	336	
-31G	1.0	56	
-32G	1.0	150	
-33G	1.0	395	
-34G	1.0	265	
-35G	1.0	397	
-36G	1.0	305	

TS1144 EC001 EC005 TS1145 EC006 EC881-36G QTZ "PATCH" EC008 EC285 EC009 TS1146 EC012 EC881-23G TS1147 EC286 EC013 EC287 TS1148 EC014 EC015 2cm QTZ VN EC020 TS1149 EC021 EC022 EC023 EC024 EC025 TS1150 EC026 EC881-22G EC028 TS1151 EC881-12G EC029 ANDESITE DYKE EC031 EC032 TS1152 EC033 2-1cm QTZ VN EC034 TS1153 EC040 EC288 1cm QTZ VN EC041 EC042 EC289 TS1154 TS1155 TS1156 EC881-1G TS1157 EC881-11G 5cm QTZ VN EC043 TS1158 EC044 TS1159 TS1160 EC045 TS1161 TS1162

21ppb + 700N 1100W; 6ppb + 675N 1100W; 30ppb + 650N 1100W; 67ppb + 625N 1100W; 225ppb + 600N 1100W; 108ppb + 375N 1100W; 81ppb + 550N 1100W; 39ppb + 525N 1100W

TRENCH FLOOR SOIL SAMPLE RESULTS

Au ppb 2000.00 0.00

TRENCH EC88-2

TRENCH EC88-2
SIGNIFICANT RESULTS

SAMPLE No.	INT(m)	Au ppb	Au oz/t
EC095	1.0	380	
EC309	0.5	930	
EC112	1.0	725	

13ppb + 625N 1050W; TS1184 Afp Ac Aa EC088 EC091 TS1185 TS1186 Afp TS1187 Ac EC092 EC094 TS1188 Ac EC095 EC096 13ppb + 575N 1100W; TS1189 Ae EC312 EC311 TS1205 Afp Ac A AeAk TS1206 Ak TS1190 Apr EC097 FEO EC099 EC300 TS1191 A EC100 EC105 152ppb + 525N 1050W; TS1192 EC310 TS1193 A(e) EC309 EC106 EC108 TS1194 106ppb + 500N 1050W; 2cm CARB-QTZ VN STRONG FeO MNO STAIN EC109 TS1195 EC115 EC116 EC118 EC119 EC121 TS1196 Apri EC299 138ppb + 475N 1050W; TS1197 EC308 TS1198 TS1199 44ppb + 450N 1050W; TS1200 1cm QTZ VN EC307 QTZ STRINGERS TS1201 EC306 EC304 EC303 EC122 EC124 EC301 TS1202 EC298 2mm QTZ CARB STRINGERS 37ppb + 425N 1050W; TS1203 EC292 EC125 EC127 TS1204 STRONG CA ALTERATION 16ppb + 400N 1050W; 110ppb + 375N 1050W

TRENCH FLOOR SOIL SAMPLE RESULTS

Au ppb 2000.00 0.00

TS1163 EC058 TS1164 EC046 TS1165 EC047 EC048 TS1166 EC054 TS1167 TS1168 EC55 EC57 TS1169 EC59 EC60 TS1170 N.S. TS1171 TS1172 TS1173 TS1174 TS1175 TS1176 TS1177 TS1178 EC61 TS1179 EC69 TS1180 EC80 TS1181 EC81 EC84 EC85 EC86 TS1182 TS1183

+ 475N 1100W 125ppb; 92ppb; + 400N 1100W 61ppb; + 375N 1100W 84ppb; + 350N 1100W 22ppb; + 325N 1100W 83ppb

TRENCH EC88-3

Au ppb 2000.0 0.00

53ppb + 825N 1000W

TRENCH EC88-3

SAMPLE No	INT	Au ppb	Au oz/t
EC140	0.5	445	
EC141	0.5	540	
EC144	0.8	1290	0.031
EC145	1.0	930	
EC146	0.9	330	
EC148	1.0	350	
EC149	1.0	555	
EC150	1.4	680	
EC151	1.1	950	
EC152	1.0	465	
EC153	1.0	1190	0.089
EC314	1.2	350	
EC154	0.5	780	
EC155	1.0	610	
EC156	0.85	650	
EC158	1.5	390	
EC159	0.5	420	
EC162	0.5	540	
EC163	0.5	640	

1989 SAMPLING

EC883-1G	1.0	294	
-2	1.0	656	
-3G	1.0	207	
-4G	1.0	640	
-5G	1.0	2198	
-6G	1.0	1478	Avg 1868 ppb / 3.0m
-7G	1.0	1929	
-8G	1.0	327	
-9	1.0	331	
-10G	1.0	127	
-11G	1.0	225	
-12G	1.0	364	
-13	1.0	201	
-14	1.5	611	
-15G	1.0	248	
-16	1.0	885	
-17	1.0	313	
-18G	1.0	990	
-19G	1.0	1046	
-20G	1.0	491	
-21G	1.0	96	
-22G	1.0	279	
-23G	1.0	157	
-24G	1.0	337	
-25G	1.0	1159	
-26G	1.0	354	
-27G	1.0	1825	

TS1207 TS1208 EC128 EC130 EC131 TS1209 EC135 TS1210 EC136 EC139 TS1211 EC140 EC142 TS1212 EC143 1cm QTZ VN EC152 TS1213 EC153 EC314 EC315 ANDESITE DYKE EC154 950N 10W + PACED LINE TS1214 EC883-1G EC160 EC161 ANDESITE DYKE EC162 TS1215 EC163 ANDESITE DYKE TS1216 EC883-27G TS1217 6mm QTZ VN TS1218 EC164 TS1219 EC165 EC167 TS1220 EC168 EC170 TS1221 EC171 TS1222 EC173 EC174 EC176 EC177 EC178 EC179 TS1223 EC180 EC182 EC183 EC185 EC186 TS1224 EC190 TS1225 EC191 EC192 TS1226 EC193 EC194 TS1227 TS1228 TS1229 TS1230 EC196 TS1231 EC201 EC202 EC204 EC205 EC207 EC208 TS1232 EC213 TS1233 TS1234

1ppb + 800N 900W; 3ppb + 800N 1000W; 185ppb + 775N 900W; 350ppb + 750N 900W; 625ppb + 725N 900W; 295ppb + 700N 900W; 35ppb + 675N 900W; 37ppb + 650N 900W; 21ppb + 625N 900W; 48ppb + 600N 900W; 840ppb + 575N 900W; 38ppb + 550N 900W

LEGEND

TERTIARY

Ad — ANDESITE DYKE: Dark greyish green, fine grained, occasionally contains trace disseminated pyrite.

CRETACEOUS – OTTER INTRUSIONS

FELDSPAR PORPHYRY: Syenitic, fine grained ground mass containing 2 to 30% feldspar phenocrysts 2 to 5mm in size.

JURASSIC – SIMILKAMEEN INTRUSIONS

GRANITE: Light pinkish to pink, medium to coarse grained, aplitic to equigranular.

QUARTZ MONZONITE: Medium pinkish grey, medium grained, massive to porphyritic with hornblende and biotite phenocrysts.

TRIASSIC – NICOLA GROUP

A — ANDESITE: Dark greyish green, fine grained, massive locally porphyritic A(p), containing 5 to 25% amphibole or pyroxene phenocrysts .3 to 1mm

ALTERATION AND TEXTURE CODES

The following letter codes appear as suffixes to the rock type codes
Brackets around the code letter indicates a weak feature

- i – Silicification
- k – Potassic alteration
- e – Epidote alteration
- s – Skarnification
- a – Argillic alteration
- ph – Phyllic alteration
- p – Propylitic alteration
- m – Brownish green alteration of Andesites with abundant muscovite
- b – Bleached
- c – Coarse grained
- pr – Porphyritic
- fp – Feldspar porphyry

SYMBOLS

- QUARTZ VEIN
- GEOLOGICAL CONTACT: OBSERVED, ASSUMED
- ALTERATION CONTACT
- FAULT
- EC031 EC034 — CHIP SAMPLE STRING LOCATION
- TS1080 — TRENCH WALL SOIL PROFILE LOCATION
- 37ppb + 425N 1050W — SURVEYED SOIL SAMPLE STATION WITH Au VALUE IN ppb
- ROAD
- 73/20 — STRIKE AND DIP

FAIRFIELD MINERALS LTD.

ELK PROPERTY

SIMILKAMEEN MINING DIVISION, BRITISH COLUMBIA
NTS 92H 16W

ELUSIVE CREEK
NORTH AREA

TRENCH PLAN

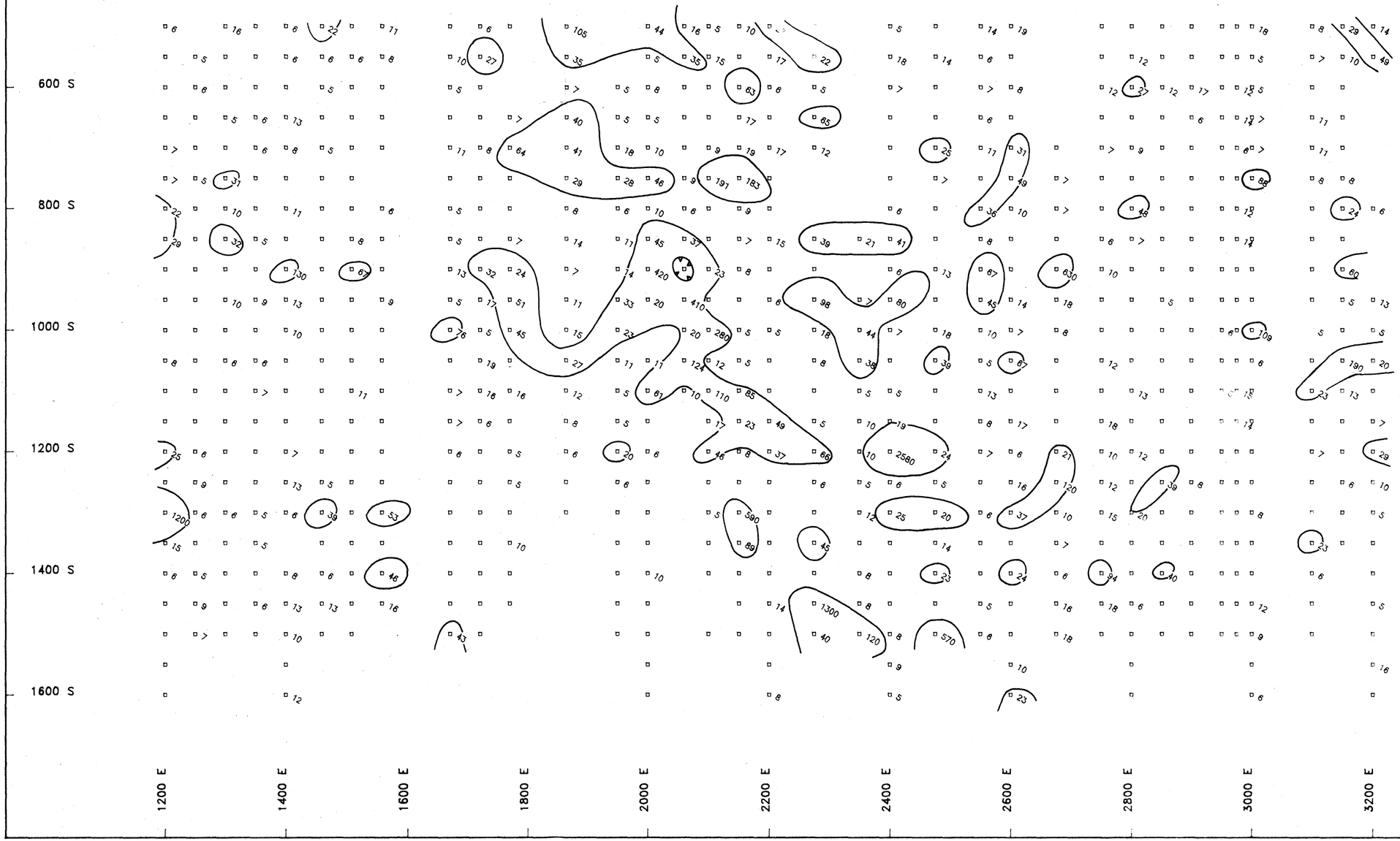
SCALE - 1:500

10 0 10 20 30 40 50 metres

CORDILLERAN ENGINEERING LTD.
1980-1055 W HASTINGS STREET
VANCOUVER, B.C. V6E 2E9

DECEMBER 1989

PLATE 4



N

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,489

SYMBOLS

AU PPB

VALUES LESS THAN 5PPB AU NOT PLOTTED

AU CONTOURED AT 20PPB

REFER TO PLATE 2 FOR LOCATION

FAIRFIELD MINERALS LTD.

ELK PROPERTY

ELK SOUTH AREA

DETAIL AU SOIL GEOCHEM

SIMILKAMEEN MINING DIVISION
NTS 92H16W

1: 5000

CORDILLERAN ENGINEERING LTD.
1980 1055 WEST HASTINGS ST.
VANCOUVER, B.C.
V6E 2E9

DEC. 1989

PLATE 3