HEAVY MINERALS GEOCHEMICAL ASSESMENT REPORT

On The FEN 1 & 2 MINERAL CLAIMS

Omineca M.D.
93L/2W

Latitude 54°10'N Longitude 126°55'W

June-July 1989

For Owner & Operator
Baril Developments Ltd.

Delta, B.C.
Nov., 1989

S. Zastavnikovich
Geochem. Consultant

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SUMMARY

The FEN Group of claims consists of the FEN 1 and FEN 2 mineral claims, Record numbers 9825 and 10873, totaling 20 units each, were staked Sept. 15th 1988 and June 25th 1989 respectively and are presently owned by Baril Developments Ltd. The claims are located in an area 4 km south of Morice River between Code and Fenton creeks, some 30 km southeast of Houston in the Omenica M.D. on NTS 93L/2W map sheet.

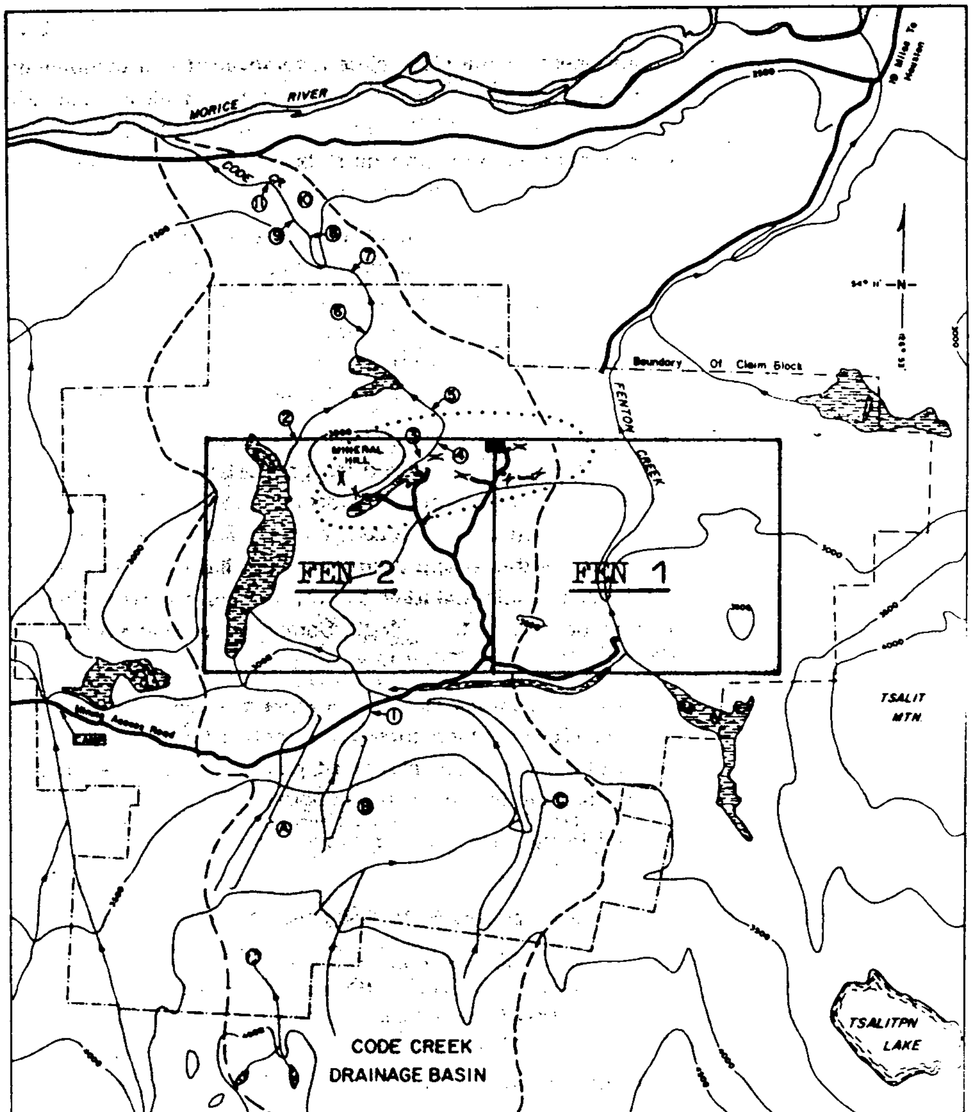
The physiography, history, general geology, mineralization and initial geochemistry for the claims area are summarized in GEM 1972 Annual Report by B.N. Church as quoted overleaf.

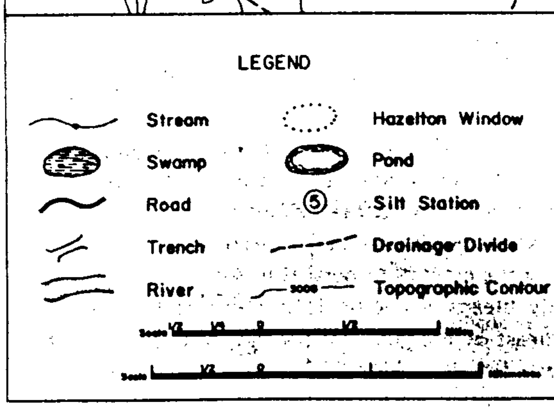
Since 1972, exploration work in the area was conducted by Vital Pacific Resources in 1976 as E.M., I.P., Radem and magnetometer surveys, geochemical sampling and drilling of two core holes, Assmt. Rep. 6320. During 1978-80 Mattagami Lake Mines carried out additional air and ground geophysical surveys and completed nine diamond drill holes totaling 745m, Assmt. Rep.s 7821, 8247, 8354, 9416, 9605, 9647, and 10003. Further drilling in 1981 resulted in 8 D.D.H. totaling 945m, Assmt. Rep.s 10156 and 10725. During 1982-84 Anaconda and Cominco performed additional I.P., magnetic, and E.M. surveys, culminating in 1410m of percussion drilling in 22 holes, Assmt. Rep.s 11286 and 13096. Finally, in 1985 Vital Pacific conducted more soil sampling, magnetometer, and VLF E.M. surveys and diamond drilled 6 holes totaling 824m, Assm.R.14029.

In an effort to identify and re-evaluate geochemically anomalous areas within the FEN 1 and 2 claims, the writer conducted reconnaissance geochemical sampling in summer 1989 based on fourteen stream sediment and twenty-three rock samples, most of which are float as outcrops are very scarce on the property. High quality stream sediments were obtained by wet-sieving in the field, while rocks exibiting sulfide mineralization, silicification, or rusty fracturing were selectively sampled. Both sediments and rock samples were processed for heavy minerals in order to enhance detection of precious metals while the regular -80 mesh fraction was analyzed for mercury and also for trace elements by ICP for comparison.

The analytical results indicate a very anomalous area in precious metals in the heavy minerals (H.M.) fraction in both rocks and sediments, centered on the prominent hill between the two branches of Code Creek in the northwest area of the claim group, as shown on Fig 4. In the rocks, gold and silver values in the H.M. fraction range up to 33,800 ppb and 70.2 ppm respectively, and are supported by elevated silver values of up to 88.7 ppm Ag in the regular -80 mesh fraction. Anomalous silver values of up to 6.9 ppm Ag are present in the H.M. fraction in the sediments. The anomalous

INDEX MAP





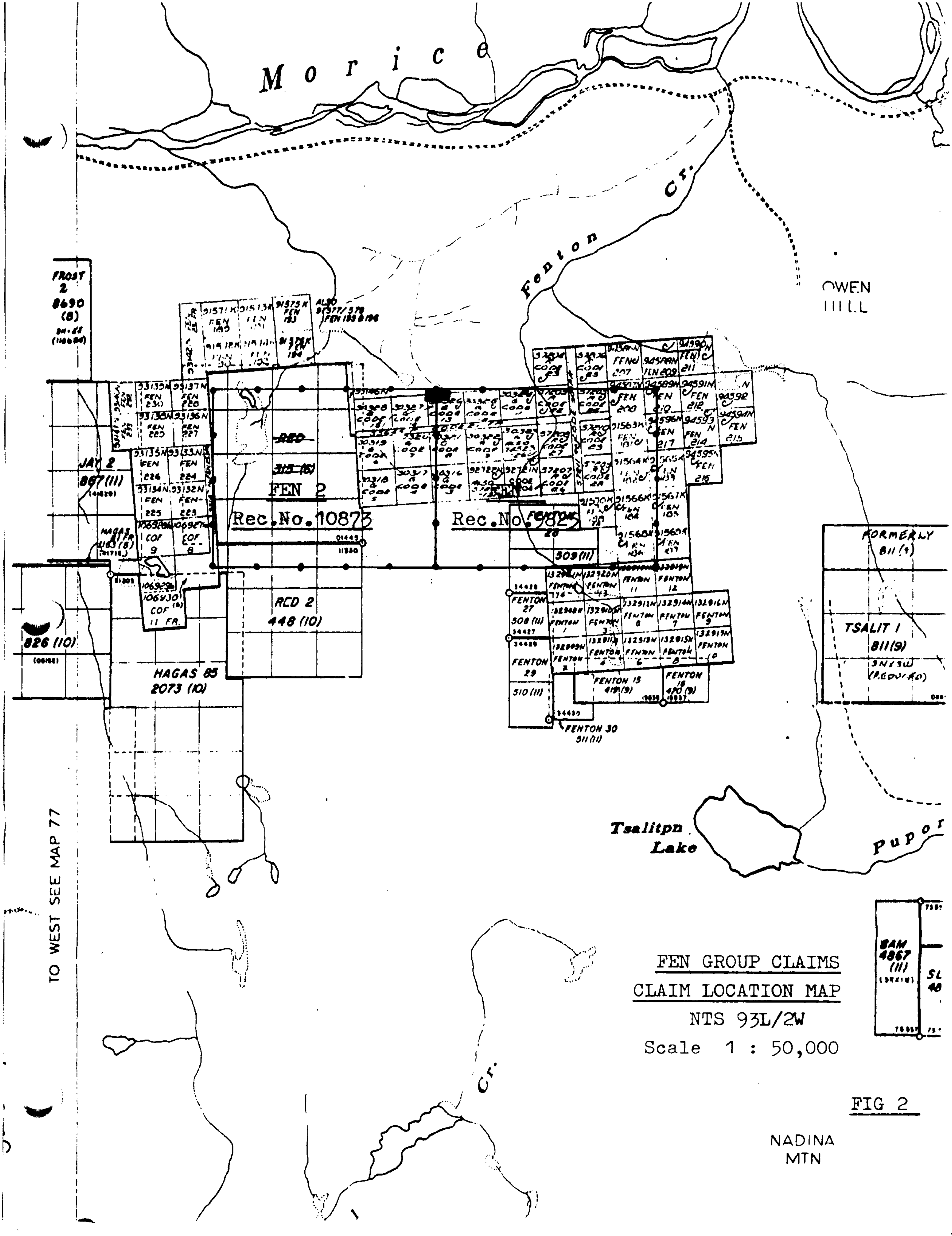
SILT ANALYSES

No.	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Mn ppm
1	0.8	40	21	95	600
2	1.0	24	25	136	1400
3	3.7	60	233	525	2800
4	4.1	80	216	500	1900
5	4.2	24	165	670	4700
6	1.3	24	28	178	1500
7	0.8	18	20	150	1500
8	0.6	17	12	100	1300
9	0.7	22	15	110	1500
10	0.7	22	14	106	1200
11	0.6	17	16	98	800
A	0.8	27	14	71	822
B	0.4	13	10	58	522
C	0.5	16	10	74	486

Analyses 1 to 11 inclusive by S. Metcalfe, British Columbia Department of Mines; A, B, and C are averages on 10, 4 and 11 samples respectively determined by Anaconda American Brass Limited

Figure 42. Analyses of silt samples taken in the Code Creek drainage basin.
(In Church, B.N., GEM, 1972)

FIG 1



FEN GROUP CLAIMS

CLAIM LOCATION MAP

NTS 93L/2W

Scale 1 : 50,000

FIG 2

precious metals values are supported by anomalous ICP geochemistry, particularly in arsenic, cadmium, manganese, lead, antimony, and zinc in the rocks, and barium as well in the sediments. Mercury values remain in the background in the sediments, but are more active in the rocks.

On Fenton Creek, a gold value of 392 ppb Au in sediments and 250 ppb Au in float in the H.M. fraction suggest the possibility of undiscovered precious metals mineralization in that area. A similar float sample of rhyolite from high up over the same hill carries highly anomalous mercury value of 1,400 ppb Hg, thus enhancing that area.

Additional stream sediment and rock sampling is needed for completion of the reconnaissance geochemical survey in the FEN group claims area.

From the 1972 GEM Annual Report, p 373-379, by B.N. Church on the FEN claims area:

CODE, FEN (No. 89, Fig. D) By B. N. Church

LOCATION:	Lat. 54° 10.2′ Long. 126° 57′ (93L/2W) OMINECA M.D. At approximately 3,000 feet elevation northwest of Nadina Mountain, 2 to 4 miles south of Morice River.
CLAIMS:	CODE, FEN, COF, totalling 148.
ACCESS:	By road from Houston, 25 miles.
OWNER:	Anaconda American Brass Limited.
OPERATOR:	HELICON EXPLORATIONS LIMITED, 1520 Alberni Street, Vancouver 5.
METALS:	Silver, lead, zinc.
DESCRIPTION:	

INTRODUCTION: A study of the geology of the Tsalit Mountain and the Code property, described in Geology, Exploration, and Mining in British Columbia, 1970, has been extended westward in response to an increase in exploration activity in the area. This report concerns the results of field work completed by the writer in the latter part of July and early August 1971 plus a brief visit to the area in the summer of 1972.

PHYSIOGRAPHY: The map-area is a 50-square-mile strip of sloping terrain of modest relief lying just south of Morice River (elevation about 2,200 feet) and east of Lamprey Creek (Fig. 40).

Code Creek, a small tributary of the Morice, springs from the low marshy central section of the map-area, the area of recent and current prospecting interest. This stream is paralleled just to the east by Fenton Creek which drains the westerly slopes of Owen Hill and Tsalit Mountain near the east boundary of the map-area. Tributaries of an unnamed stream drain the area west of Code Creek including the north slope of Pimpernel Mountain near the south boundary (the highest topographic feature with an elevation of about 5,000 feet).

The last pulse of regional Pleistocene glaciation moved easterly across the area scraping the high bedrock exposures leaving a mean striation direction of 094 degrees. Blankets of morainal debris accumulated in numerous small valleys and depressions. Granite boulders strewn westward from Owen Hill and Tsalit Mountain are believed to be the product of a period of local valley glaciation which postdated the last regional ice advance. Residual valley glaciers on the northerly slopes of Nadina and Tsalit Mountains at first drained westerly, as recorded by esker-like sand and gravel deposits near the headwaters of Code Creek, then northerly where meltwaters eventually carved a deep gully into outwash sands along the course of Fenton Creek.

A peculiar area of hummocky terrain noted near the 3,500 feet contour of Pimpernel Mountain does not appear to be due to glacial activity. This may be a side deposit resulting from a seismic event centred somewhere on the extensive fracture system known to traverse the region.

The area once heavily wooded below the 4,000-foot elevation level has been extensively logged in recent years. As a result the west-central and northeastern parts are clear cut in places and now provide excellent summer grazing land for wild animals.

PROSPECTING HISTORY: In June 1965 Julian Mining Co. Ltd. located a block of 20 claims in response to the discovery of a silver-lead-zinc geochemical anomaly on Code Creek. After some preliminary work the company was joined by Anaconda American Brass Limited, in the years 1966 to 1971, in an intensive investigation which included induced polarization and magnetometer surveys, a silt-soil geochemical programme, and geological mapping. Other supporting work includes line-cutting, bulldozer trenching, and construction of an extensive system of access roads.

In 1972 Helicon Explorations Limited resumed this investigation with detailed induced polarization and Afmag surveys and more geochemical sampling. This concluded with a diamond-drill programme of 25 holes totalling 11,000 feet in a target area in the north-central part of the property.

GENERAL GEOLOGY: The bedded units are mainly volcanic comprising rocks thought to be part of the Hazelton assemblage, and cover rocks equivalent to the Tip Top Hill, Buck Creek, and younger Tertiary formations. Igneous intrusions consist of a granite stock, a small gabbroic intrusion, and an assortment of dykes.

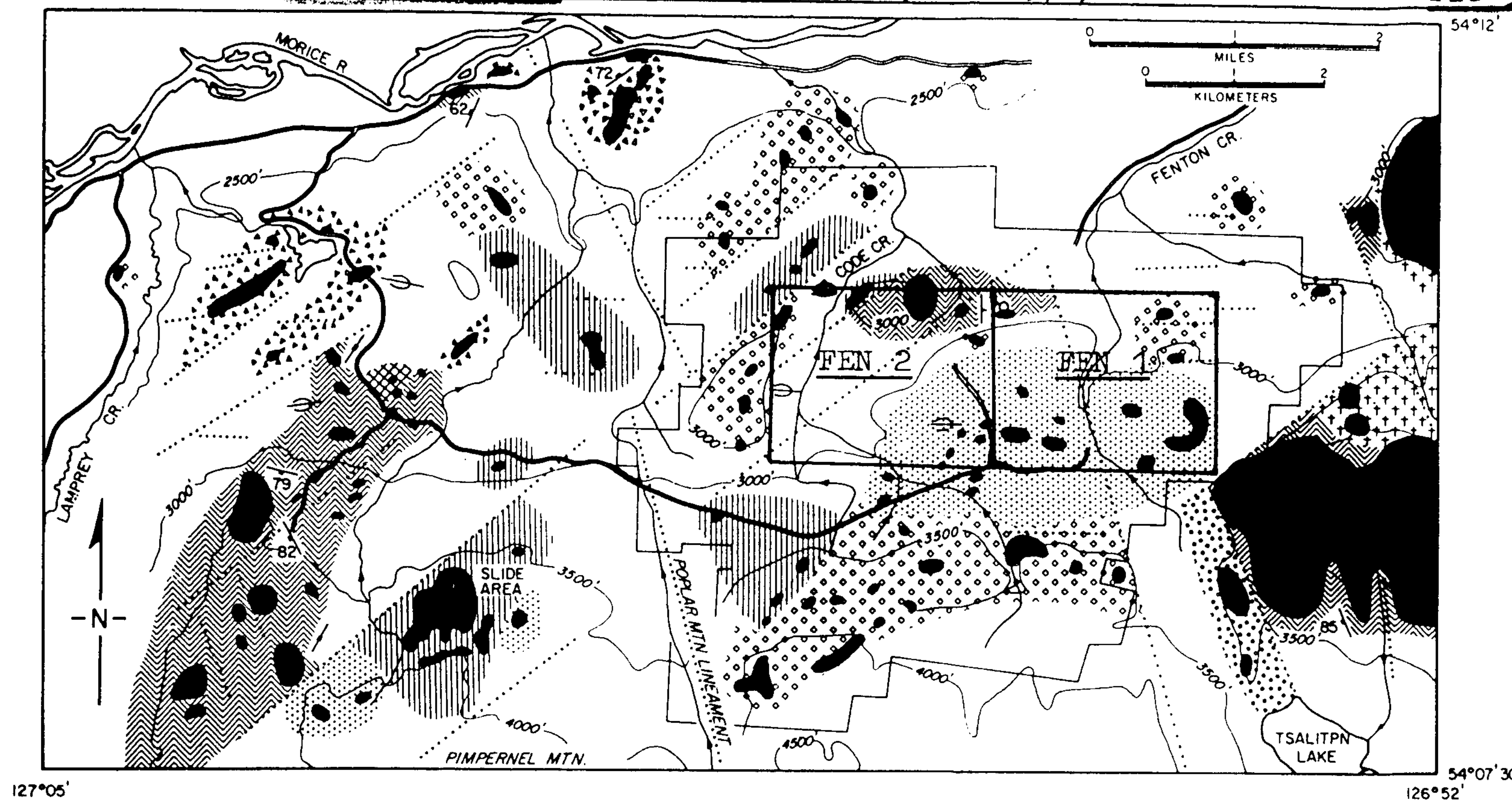
Bedded Rocks: Rocks believed to be part of the Hazelton Group crop out near the east boundary, mainly on Tsalit Mountain, in the west and northwest parts, and locally in the north-central part of the map-area. Most of these rocks are mottled greenish grey and epidote bearing. They display vestiges of primary volcanic structures such as amygdales and breccia textures. A distinctive brownish maroon pyroclastic phase, commonly charged with small feldspar laths was found on the ridges east of Lamprey Creek and near the main access roads in the northwest part of the map-area.

A frequency plot of artificially prepared glass from representative samples shows a broad composition range consisting of 35 per cent basalt, 20 per cent andesite, 20 per cent dacite, and 15 per cent rhyolite (Fig. 41).

Some shaly beds, apparently intercalations in the Hazelton volcanic pile, were reportedly intersected by drilling in the central area. On the whole, however, these sedimentary facies are rarely exposed.

Rocks thought to be the equivalent of Tip Top Hill lavas and pyroclastics (Upper Cretaceous) are seen on the bluffs and ridges in the south part of the Code-Fen property, on numerous knolls and low ridges near the northwest corner of the claim block, and to lesser extent on the northeast claims.

GENERAL GEOLOGY (In Church, B.N., GEM 1972) FIG 3



BEDDED ROCKS

TERTIARY

FENTON CREEK VOLCANIC ROCKS: RHYOLITE AND TRACHYTE BRECCIA AND GLASSY LAVA

BUCK CREEK VOLCANIC ROCKS?: MAINLY FRESH BROWN APHANITIC ANDESITE

UPPER MESOZOIC

TIP TOP HILL VOLCANIC ROCKS?: DACITIC PYROCLASTIC ROCKS AND LAVAS

SEDIMENTARY ROCKS; MAINLY SANDSTONE, LOCALLY RUST-COLOURED

LOWER OR MIDDLE MESOZOIC

HAZELTON GROUP: MAINLY MAROON AND BROWN ANDESITIC AND DACITIC PYROCLASTIC ROCKS AND/EPIDOTE-BEARING MOTTLED GREY-GREENISH ANDESITE AND BASALT AND MINOR RHYOLITE

IGNEOUS INTRUSIONS

TERTIARY

OWEN HILL GRANITE

MESOZOIC

SMALL GABBRO STOCK

SYMBOLS

BEDROCK EXPOSURE

BEDDING ATTITUDE

MAIN JOINT SET; VERTICAL, INCLINED

GLACIAL STRIAE

TOPOGRAPHIC LINEAMENT

BOUNDARY-CODE-FEN CLAIM BLOCK

TOPOGRAPHIC CONTOUR 4000'

SMALL STREAM

ROAD

Figure 40
GEOLOGY OF THE CODE CREEK AREA

Generally the rocks are light or medium brown, often somewhat rusted on weathered surfaces. The most common phase has numerous small feldspar laths 1 to 3 millimetres long mixed with a few hornblende prisms and biotite books. Arc fusion analysis performed on 15 samples shows that the rocks are essentially dacites having an average refractive index of 1.517.

A wedge of sedimentary rock, mainly brown quartz feldspar wacke, is exposed on a low ridge just northwest of Tsalitpn Lake at the western extremity of Tsalit Mountain. These rock are well indurated, however, unlike many Hazelton units there is little evidence of cataclasis. The relative stratigraphic position of these beds is in doubt. It appears that the material was initially deposited prior to the eruption of much volcanic debris in Late Cretaceous time. It seems clear from the petrography of this rock that the clastics were derived at least in part from a granitic provenance; a terrain soon to be covered with thick volcanic accumulations.

Tertiary volcanic rocks tentatively correlated with the Eocene Houston phase of the Buck Creek assemblage are exposed on scattered knolls in the central part of the map-area and on the slopes of Pimpernel Mountain to the south. These lavas and volcanic breccias are commonly medium or dark brown and aphanitic. In thin section the rocks are found to consist largely of tiny plagioclase microlites and clusters of small pyroxene crystals in a glassy matrix. X-ray analysis shows an average of less than 2 per cent quartz; this is in contrast with the older volcanic rocks of the area which range to as much as 40 per cent quartz in some cases. Arc fusion analysis of 10 samples shows that the rocks are typically andesitic having an average refractive index of 1.552.

The youngest formation, here tentatively named 'Fenton Creek volcanic rocks,' is found mainly in a 1.5 by 2.5-mile laterally elongated zone in the east-central part of the map-area. This unit consists of volcanic breccias, lava, tuff, and dykes, that are very fresh and probably of post-Miocene age. In places, especially east of Fenton Creek, the unit is mostly glassy rhyolite lava and breccia (*see* the accompanying chemical analysis); immediately to the northwest this volcanic complex changes to predominantly feldspar porphyry trachyte and to the south to quartz porphyry rhyolite. Arc fusion analysis of three samples of trachyte gives an average refractive index of 1.492.

A few scattered outliers of similar rocks possibly related to the trachyte are found on Pimpernel Mountain.

Intrusive Igneous Rocks: The Owen Hill granite, the largest intrusion in the map-area, outcrops at the east boundary where it cuts Hazelton volcanic rocks. This is a medium-grained leucocratic stock probably correlative with the young (Tertiary) plutonic bodies on Nadina Mountain.

Modal analysis of seven samples shows the following composition:

Quartz	29 per cent
Perthitic orthoclase	27 per cent
Plagioclase (zoned, mainly oligoclase)	39 per cent
Biotite Chlorite Magnetite Apatite	5 per cent

It is noted that if the albite component of the plagioclase is removed it will combine in roughly equal proportions with the orthoclase and quartz with total residuals less than 20 per cent. According to Tuttle and Bowen (1958, pp. 127, 128) such rocks which approach eutectic or thermal minimum composition must be unequivocably classed as true granites as distinguished from other rocks of the granite clan.

The only other intrusion worthy of description is a small fine to medium-grained gabbroic stock, about one-quarter mile in diameter, found cropping out just northeast of the main access logging road in the west-central part of the map-area. Thin section study of two samples of a feldspathic phase of this rock shows an average of 85 per cent plagioclase (An_{40} to An_{50}), 14 per cent pyroxene and equivalent alteration products, and 1 per cent magnetite and other accessories. A minor occurrence of chalcopyrite has been reported in the vicinity of this body.

STRUCTURAL GEOLOGY: The area is characterized by a reticulate pattern of small valleys and draws which evidently mark a system of important fractures. The so-called Poplar Mountain lineament which originates near the centre of the map-area is the most conspicuous regionally. This line can be traced approximately 15 miles to the southeast, striking about 165 degrees, to Tagetochlain Lake. It sharply defines the west side of Poplar Mountain which proves to be a large fault block. Somewhat weaker subparallel lineaments are observed near Tsalitpn Lake and Tsalit Mountain.

A second series of prominent lineaments coincides with a number of small but important faults trending about 050 degrees. Movement on these has chopped the geology in the northwest sector into a number of northeasterly elongated panels. Some offset in the northern extension of the Poplar Mountain lineament is also apparent.

Examination of the data gathered in the field shows the prevalence of minor fractures. The main attitudes are as follows:

Development	Attitude
(1) Very strong	strike 100 degrees, dip 90 degrees
(2) Strong	strike 140 degrees, dip 80 degrees southwest
(3) Intermediate	strike 025 degrees, dip 60 degrees northwest
(4) Weak	strike 065 degrees, dip 80 degrees northwest

The strongest direction (1) is parallel to a set of well-developed easterly trending lineaments. (These are readily confused with glacial grooves displayed by photographs.) The remaining fractures cannot be easily correlated with known lineament directions, possibly because of the extent of glacial cover in the area and limitations in photographic resolution.

MINERALIZATION: The zone of mineralization on the Code-Fen property is coincident with an elliptical window of Hazelton acid pyroclastic rocks about 0.5 mile wide extending 1.2 miles eastward from Mineral Hill and centred about 1.5 miles south of the Morice River road (Fig. 40). Owing to extensive till deposits in this region visible bedrock is restricted to trenches, a few areas near the crest of Mineral Hill, and along Code Creek. Where exposed the rocks are uniformly bleached dacitic tuffs and tuff breccias; these appear to be massive except just southeast of the gully on the east fork of Code Creek where a section of well-bedded tuff was found striking 005 degrees dipping 65 degrees easterly. Fine-grained pyrite and dark specks of sphalerite are widely disseminated accompanied by intense clay alteration, silicification in places, and manganese encrustation on cracks. A few narrow veinlets of dark sphalerite and pyrite are visible in some samples.

Knowledge of the nature and origin of the mineralization is incomplete. No igneous intrusion has been found in the immediate area that could be attributed as being the source of metal-bearing solutions. In fact the only intrusions known to cut Hazelton rocks are fresh Tertiary dykes that certainly postdate mineralizing events. (Scattered pyrite reported as occurring in the quartz porphyry phase of the Fenton Creek rhyolite is not considered part of or related to the main mineralization.)

SILT AND SOIL GEOCHEMISTRY: The results of a silt geochemical survey in the Code Creek drainage basin is shown on Figure 42. A total of 11 samples were collected by the writer and submitted for acid extraction treatment and atomic absorption analysis.

The determinations show a regular increase in silver passing upstream from a point near the mouth of Code Creek (station 11) to its east fork tributary approaching the Hazelton window (stations 3, 4, and 5). The behaviour of zinc is markedly similar to silver as is lead and manganese; copper is somewhat erratic. Average background readings established from stations on the upper reaches of Code Creek (Nos. 1, A, B, and C) are as follows: 0.6 ppm silver, 24 ppm copper, 14 ppm lead, 74 ppm zinc, and 608 ppm manganese. The highest values, all from stations 3, 4, and 5, are: 4.2 ppm silver, 80 ppm copper, 233 ppm lead, 670 ppm zinc, and 4,700 ppm manganese.

Detailed soil sampling in the area of the Hazelton window shows good geochemical coherence between lead and zinc and to a certain extent, silver. According to a company report the results of a total of 395 samples (normally taken from 'B' horizon) shows lead greater than 60 ppm and ranging to 1,000 ppm in 74 samples and zinc greater than 700 ppm and ranging to 2,000 ppm in 75 samples. Copper levels rarely exceed 75 ppm and are nowhere considered anomalous. The threshold level for silver has been set at 1.7 ppm in this area; in a few soil samples silver attains values in excess of 16 ppm.

WORK DONE: Surface workings mapped; induced polarization survey, 5 line-miles covering central area of the Code-Fen claims; Afmag survey, 2.5 line-miles covering the same claims; geochemical soil survey, 270 samples covering the same claims; surface diamond drilling, 25 holes totalling 11,000 feet on Code 6-9, 12, 13, 15, 21 Fraction and Fen 1.

REFERENCES: *Minister of Mines, B.C.* Ann. Rept., 1965, p. 81; 1967, p. 109; 1968, p. 139; *B.C. Dept. of Mines & Pet. Res.,* G.E.M., 1970, pp. 149, 150; 1971, p. 173; Assessment Reports 799, 1229, 2734, 3257, 3646; Tuttle, O. F. and Bowen, N. L., 1958, *Geol. Soc. Amer.,* Mem. 74, p. 153.

GEOCHEMICAL SURVEY

In order to enhance the detection of precious metals values, the writer conducted a limited reconnaissance scale geochemical heavy minerals survey last July by sampling stream sediments and rocks on the FEN group mineral claims.

As plotted on the 1:10,000 scale sample location map, in pocket, fourteen high quality stream sediments were collected using a specially constructed perforated pan and sieve to enhance the uniformity of sampled material. Twenty three rocks, most of which are float, as described in Appendix I, were collected over the predominantly overburden covered terrain. Siliceous rocks containing visible sulfide minerals, evidence of alteration, or rusty precipitates on fractures were selectively sampled, as all these are considered useful indicators of possible enhancement in precious metals values.

Both rock and sediment samples were processed with heavy liquids for their heavy minerals (H.M.) content at Min-En Laboratories in N. Vancouver, and analyzed for gold by geochemical fire-assay methods, and for 30 trace-elements by ICP. The regular -80 Mesh fraction was analyzed for mercury, and for the ICP trace elements for comparison. Complete analytical results are inscribed on the 1 : 10,000 scale geology and sample location map, Fig 4, and are also enclosed at the back of the report as Appendix IV.

Heavy Minerals Sediment Geochemistry

As the analytical results in Fig. 4 indicate, highly anomalous silver values in both branches of Code Creek have been established in the H.M. fraction in sediment samples SED 12, 13, 14, ranging up to 6.9 ppm Ag. These are strongly supported by barium in SED 12 and 14, and by cadmium, manganese, phosphorus, lead, zinc and mercury in SED 13.

On Fenton Creek, sample SED 18 yielded 392 ppb gold, in the H.M. fraction, which is strongly enriched in otherwise barren iron minerals, except for vanadium.

Poor correlation with the ICP trace element values in the regular -80 Mesh sediment fraction is evident, indicating differentiation during transport of the two fractions.

Heavy Minerals Rock Geochemistry

As indicated in Appendix I, most of the rock samples are float due to the scarcity of outcrops on the glacially mantled slopes on the property. Three rock samples, RF60 to 62, are strongly anomalous in gold in the H.M. fraction, ranging from 6,990 ppb to 11,000 ppb to 33,800 ppb Au. As shown in Fig. 4, the samples are located on the Code Creek Hill in an area of strong alteration, which likely leached the associated trace elements, leaving gold with the silica. Strong silver values of up to 70 ppm Ag in nearby rocks, supported by anomalous arsenic, as well as Cd, Cu, Mn, Pb, Sb, and Zn, are only weakly associated with gold values of up to 155 ppb Au, suggesting that the gold is present at some depth, but not at surface.

The silver rich rock samples RF64-66 are likewise strongly anomalous in silver in the -80 Mesh fraction, ranging up to 88.7 ppm Ag in RF64, which are similarly associated with strongly anomalous base metals trace element values. These rocks represent the source of the strong silver anomalies in the Code Creek sediments.

On Fenton Creek, rhyolite float sample RF54 has 250 ppb gold, and 1,172 ppm arsenic, as well as anomalous cu, Ni, Pb, W, and Cr. Over the same hill, sample RF72 of float rhyolite carries highly anomalous 1400 ppb mercury, warranting a closer examination of that area.

Unlike sediments, the rock samples exibit a high degree of correlation in trace elements between the H.M. and the -80 Mesh fractions. The heavy mineral fraction is clearly necessary for useful detection of analytical gold values on the property.

CONCLUSIONS

1. Highly anomalous gold values in the H.M. fraction have been located in rocks near Code Creek on the FEN property.

2. The source of stream sediment H.M. silver anomalies has been identified in both the H.M. and the regular -80 Mesh fractions in rocks in the Code Creek area.

3. Strong presence of iron minerals and a weaker gold value in the Fenton Creek sediments may represent a zone of enhanced precious metals values.

4. The H.M. fraction is necessary for meaningful detection of analytical gold values on the property.

REFERENCES

Church, B.N., Geology, Exploration and Mining in British Columbia, 1972, p. 373.

STATEMENT OF QUALIFICATIONS

I.- Sam Zastavnikovich, do hereby certify that:

1. I am a graduate of the University of Alberta with the Degree of B. Ed. in Physical Sciences, 1969.

2. I have been a practicing exploration geochemist with Falconbridge Ltd. of Toronto and Vancouver for thirteen continuous years as:

   1969-1975: Field geochemist, international.
   1975-1979: Project geologist-geochemist, B. C.
   1979-1982: Exploration geochemist, worldwide, where
   I was engaged in all aspects of geochemical exploration, including research and development of improved sampling techniques, and advanced geochemical interpretation, as well as the writing of final, budget, and assessment reports.

3. I am a voting member of the Association of Exploration Geochemists.

4. I am a consulting geochemist with offices at 5063 - 56th. St., Delta, B. C.

S. Zastavnikovich,
Expl. Geochemist

Appendix I   Rock Sample Notes

Sample No. -All samples are float except where noted as outcrop:

RF51 - chloritized, sheared, very siliceous rock with disseminated specks of pyrite and galena?
RF52 - siliceous volcanic breccia
RF53 - sheared rhyolite with rusty microfractures
RF54 - fractured rhy. with dark veinlets
RF55 - siliceous light-colored volcanic with rusty hairline fractures
RF56 - siliceous redish rusty breccia
RF57 - silicified volcanic breccia
RF58 - silicified volc. breccia with Mn stained fractures
RF59 - bleached volc. breccia with rusty specks
RF60 - siliceous dark volc. breccia with Mn, Fe on fractures
RF61 - bleached white volcanic, with Mn, Fe on fractures
RF62 - clay-altered, bleached, rusty on fractures
RF63 - bleached tuff?, Fe and Mn stained
RF64-66 - similar to RF63
RF67 - siliceous volcanic, rusty on fractures
RF68 - outcrop, rhyolite with rusty fractures
RF69 - bleached rhy., rusty fractures.
RF70 - outcrop, maroon volcanic, rusty fractures, siliceous
RF71 - bleached volcanic breccia, Mn on fractures
RF72 - flow-banded rhyolite, cross-cutting dark micro-veinlets
RF73 - sheared, siliceous volcanic

APPENDIX II.

STATEMENT OF EXPENDITURES

FEN Mineral Claims, July 6-10th. 1989

Fieldwork -	S. Zastavnikovich, Geochemist 5 field days @ 250	1,250	
	Food & Lodging, 5 days @ 70	350	
	Transport, 4x4 truck, 5 days @ 40	200	
	gas & mileage	190	
	Field supplies & Sample delivery	60	
			2,050
Analysis -	14 sediments, prep @ 1.00 /sample	14	
	23 rocks, prep. @ 3.00/sample	69	
	37 samples, H.M. prep @ 25	925	
	51 samples, ICP,fire-Au,mercury @18.25	930.75	
	23 samples, ICP,fire-Au @ 14.25	327.75	
			2,266.50
Report Preparation-			
	Writing, drafting, filing, 4 days @250	1000	
	Typing, maps, report reproduction	160	
	Mileage and parking	40	
			1,200
	Total Expenditure		$5,516.50

APPENDIX III.

Analytical Procedure - The samples were analyzed by Min-En Laboratories Ltd. of 705 West 15th St., N.Vanc, as follows:

The stream sediments were oven-dried in their original water-resistant kraft paper bags at 95°C and screened to obtain the minus 80 mesh fraction for analysis. The rock samples were crushed and pulverized in a ceramic-plated pulverizer.

A suitable weight og 5.0 or 10.0 grams is pretreated with HNO_3 and $HClO_4$ mixture.

After pretreatment the samples are digested with Aqua Regia solution, then taken up with 25% HCl to suitable volume and aliquot used for the 26 element ICP trace element analysis.

From the major remaining portion of the sample, Gold is preconcentrated by standard fire assay methods, then extracted with Methyl Iso-Butyl Ketone and analyzed by Atomic Absorption.

For Mercury analysis, 1 gram of sieved material is sintered at 90°c for 4 hours, then digested in HNO_3 and HCl acids mixture, and analyzed by the Hatch and Ott flameless AA method.

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* TYPE SOIL GEOCHEM *

SAMPLE NUMBER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CU PPM	FE PPM	K PPM	LI PPM	MG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	U PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR PPM	AU PPB	HG PPB
SED11	.1	7950	12	1	78	.6	2	2300	1.9	9	10	24580	500	1	4050	401	2	120	5	450	46	1	11	1	1	45.5	179	1	1	1	9	1	55
SED12	.1	9180	1	1	97	.6	3	3510	1.2	12	7	25740	570	1	5110	826	3	240	8	690	56	1	19	1	1	48.8	79	1	1	1	12	2	60
SED13	.1	7800	5	1	70	.7	2	2940	.6	10	9	22910	670	1	4130	613	3	210	7	630	25	1	13	1	1	41.7	137	1	1	1	10	3	60
SED14	.5	8890	7	1	225	.9	3	2900	1.7	13	16	28350	880	1	4240	965	3	110	6	560	125	1	12	1	1	45.1	108	1	1	1	9	2	45
SED15	.7	14070	14	1	117	1.0	4	3630	2.7	13	12	34620	1040	1	5080	1133	3	130	8	510	65	1	18	1	1	61.5	360	1	1	1	14	2	70
SED16	.7	16910	10	1	125	1.2	5	4340	2.3	17	20	38080	1120	1	7060	1414	4	200	11	630	57	1	18	1	1	77.6	203	2	1	1	17	1	70
SED17	.7	12040	20	1	107	1.1	4	4830	1.7	16	15	33270	1080	1	5790	1362	3	290	10	630	42	1	20	1	2	66.9	148	2	2	1	16	3	75
SED18	1.0	12060	13	1	88	1.3	7	6150	1.6	22	16	63960	1080	1	5380	1196	3	280	5	780	54	1	22	1	1	170.0	138	2	4	3	27	2	60
SED19	.5	13290	6	1	108	1.0	5	6080	2.0	20	17	42900	1130	1	6450	1681	4	410	11	760	36	1	21	1	1	103.0	124	2	2	2	20	21	55
SED20	.4	12890	4	1	139	1.1	4	5180	1.6	16	13	36500	1130	1	5130	1335	3	430	13	730	29	1	26	1	1	77.3	91	1	1	2	20	2	60
SED21	.6	14750	9	1	143	1.3	5	5690	2.8	20	14	41350	1070	1	6440	1924	4	440	19	860	112	1	26	1	1	83.0	101	2	1	2	24	4	55
SED22	.2	13590	2	1	155	.8	4	3550	.2	12	17	23980	1220	1	5750	507	3	450	9	480	11	1	22	1	1	59.1	59	1	1	1	18	3	55
SED23	3.1	13360	25	1	101	.9	3	2390	2.5	12	21	29020	1560	1	3680	1509	3	150	7	510	394	6	16	1	1	54.8	328	1	1	1	15	2	60
SED24	.7	15550	2	1	101	.9	4	6340	1.9	15	19	34270	1240	1	6730	852	3	340	9	640	29	1	20	1	1	78.7	112	1	1	1	18	1	45

* TYPE HEAVY MINERALS *

SAMPLE NUMBER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CU PPM	FE PPM	K PPM	LI PPM	MG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	U PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR PPM	AU PPB	HG PPB	HM %
SED11	.8	6300	22	1	350	1.1	6	6580	.3	16	10	57680	160	3	2840	327	1	30	1	730	31	1	19	1	1	155.8	79	1	2	1	1	1	50	3.22
SED12	6.9	5360	19	1	2600	1.1	6	5760	.3	16	25	54150	150	3	3210	867	2	50	1	790	17	3	16	1	1	117.3	86	1	2	1	1	1	30	4.04
SED13	2.7	6670	36	1	300	1.1	7	7820	2.8	16	19	49650	260	3	3400	1086	1	70	5	980	51	2	21	1	1	101.7	296	1	2	1	1	1	130	2.77
SED14	2.0	7560	25	1	22000	1.2	6	7670	.3	19	15	52060	320	3	3050	402	1	70	4	650	26	1	26	1	1	85.7	64	1	2	1	1	1	50	1.76
SED15	.5	8720	23	1	240	1.3	8	8550	.3	16	9	58730	240	4	3210	478	2	50	1	490	36	1	27	1	1	154.4	126	1	2	1	1	1	20	2.97
SED16	.1	8740	3	1	600	.8	5	6750	.3	12	8	30630	280	5	4140	553	1	80	4	390	15	1	20	1	1	80.4	69	1	1	1	1	1	5	1.79
SED17	.1	7590	39	1	450	1.4	8	7610	.3	19	13	67260	250	3	3260	571	1	80	1	600	31	1	22	1	1	169.6	92	1	2	1	1	1	30	3.31
SED18	.8	6400	34	1	200	2.1	12	7270	.3	28	18	112520	240	2	2790	701	1	60	1	900	38	2	19	1	1	296.7	110	2	3	1	1	392	5	9.35
SED19	.3	7760	44	1	240	1.7	8	7850	.3	19	12	76200	200	3	3570	557	1	70	1	740	26	3	21	1	1	186.6	87	1	3	1	1	2	5	5.87
SED20	.3	7210	34	1	400	1.7	9	7400	.3	22	12	80130	210	3	3030	709	2	70	1	920	23	1	21	1	1	197.8	103	1	2	1	1	16	5	3.61
SED21	.1	7770	19	1	280	1.3	7	7410	.3	19	24	63360	230	4	3530	707	2	110	1	740	23	1	21	1	1	144.2	66	1	2	1	1	3	20	3.56
SED22	.3	8460	17	1	400	.9	8	8380	.3	16	12	46310	230	3	3830	396	2	70	3	630	19	1	24	1	1	126.2	45	1	2	1	1	1	40	2.05
SED23	.8	8340	47	1	1600	1.3	7	7720	.3	17	15	60690	290	3	3030	682	2	40	1	650	81	5	24	1	1	139.3	179	1	2	1	1	2	90	1.54
SED24	.4	8760	16	1	1250	.7	6	9050	.3	14	13	42240	200	3	3650	501	2	90	2	560	15	1	25	1	1	114.9	56	1	2	1	1	1	40	2.91

APPENDIX IV.

FEN GROUP CLAIMS

SCALE: 1:10,000

DATE: SEP. 1989

Houston Area, B.C.

DRAWN BY S.Z.

GEOCHEMICAL H.M. SURVEY

Silts & Rocks

DRAWING NUMBER FIG. 4

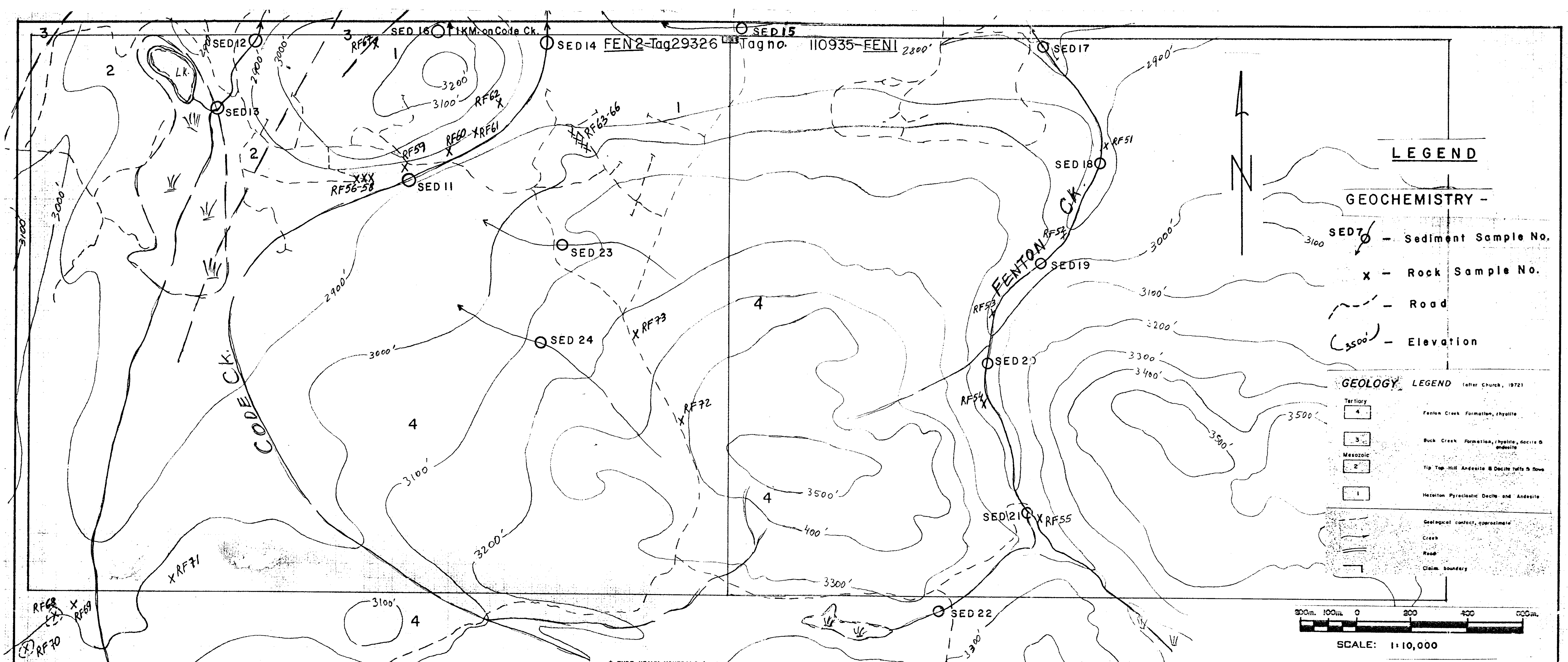
(X) RF70

* TYPE HEAVY MINERALS *

SAMPLE NUMBER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CU PPM	FE PPM	K PPM	LI PPM	MG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	U PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR PPM	AU PPB	HM %
RF51	3.2	810	42	1	259	.4	1	1000	.1	27	99	11750	750	1	330	138	11	530	49	140	634	1	13	1	1	6.0	154	1	1	5	593	10	.05
RF52	2.1	770	130	1	93	.7	5	420	.1	10	58	27350	600	1	280	231	7	190	33	90	262	1	3	1	1	8.0	111	1	1	14	2021	5	.07
RF53	4.2	1070	1	1	92	.1	1	1000	1.8	16	20	4530	1280	1	360	72	4	860	14	90	85	1	9	1	1	2.4	130	1	1	2	151	5	.07
RF54	3.3	400	1172	1	83	2.4	9	350	.1	55	171	163390	250	1	420	1109	35	90	177	230	129	15	12	1	1	38.7	227	3	4	93	13540	250	.08
RF55	1.8	230	890	1	76	1.4	11	190	.1	102	114	116390	290	1	350	888	37	90	147	190	81	10	10	1	1	30.5	236	3	2	76	10065	5	.06
RF56	2.1	560	588	1	140	2.1	7	5450	.1	34	89	103380	1180	1	1600	1607	23	410	102	2670	122	1	20	1	1	38.1	166	2	1	50	7173	5	.07
RF57	.9	620	289	1	111	1.2	1	3860	.1	23	45	55980	1510	1	3500	941	15	590	46	1560	48	1	14	1	1	21.6	328	1	1	25	3423	5	.09
RF58	2.1	850	344	1	90	.9	1	870	.1	20	62	59960	640	1	300	442	12	100	54	500	75	1	11	1	1	15.0	192	1	1	29	4109	5	.11
RF59	.7	240	62	1	40	.4	1	3650	.1	7	22	18890	290	1	650	279	4	70	14	1850	27	1	5	1	1	5.7	97	1	1	5	762	5	.09
RF60	2.8	690	340	1	119	1.4	6	8200	.1	23	84	68270	1300	1	3520	1201	15	260	70	4090	79	1	14	1	1	28.0	259	2	2	27	3795	6900	.06
RF61	10.8	1630	141	1	75	1.2	10	650	.1	12	64	52940	1450	1	360	377	6	100	19	960	80	10	29	1	1	12.0	267	1	1	7	1007	11000	.10
RF62	4.9	480	40	1	32	.4	1	200	2.8	6	43	18450	480	1	100	141	3	20	25	130	37	1	2	1	1	5.3	196	1	1	9	1270	33800	.06
RF63	3.6	3150	158	12	60	3.6	6	630	16.8	32	40	263140	1970	1	2660	5262	15	100	1	1600	297	59	10	1	1	15.0	5697	2	4	3	346	50	.36
RF64	70.2	120	1352	10	79	.1	1	660	124.7	31	133	390960	320	1	10	7821	1	10	1	720	1131	90	1	1	1	15.8	12235	1	1	1	1	155	3.32
RF65	59.7	2860	385	10	173	5.3	7	8680	6.6	85	215	271520	1200	1	1270	3337	31	50	30	7530	812	193	22	1	1	61.7	3138	2	5	5	702	50	.36
RF66	20.5	1530	139	11	2	.1	1	280	.1	81	150	293920	1160	3	80	251	1	60	1	880	191	16	6	1	1	24.1	587	1	2	1	1	94	1.73
RF67	3.3	1200	306	1	231	2.1	8	15680	.1	76	96	111990	410	2	820	782	13	180	62	8150	127	14	25	1	1	21.6	311	2	2	21	2943	5	.15
RF68	4.2	3690	251	1	90	3.0	6	71940	.1	72	64	142760	510	2	1670	3215	14	580	2	37380	95	8	109	3	2	78.3	449	3	3	3	359	25	.17
RF69	2.6	18190	818	7	382	6.4	13	12030	.1	58	45	355830	2480	1	3350	4839	67	860	1	8050	40	15	61	1	1	195.6	561	3	6	1	1	192	.28
RF70	1.6	1220	48	6	120	2.3	9	16290	.1	49	33	128480	180	1	14470	1749	6	210	39	2670	51	13	29	2	1	342.9	197	2	4	2	100	10	.76
RF71	3.6	2180	97	1	65	1.8	10	17850	.1	23	67	70690	660	1	1050	510	8	170	35	8730	29	1	26	1	1	242.1	442	2	2	8	1061	5	.19
RF72	.6	460	770	1	50	2.1	10	220	.1	69	164	108030	450	1	260	854	31	100	149	180	11	3	8	1	1	26.1	215	2	2	64	9151	5	.12
RF73	1.8	4700	1	1	352	.4	1	2540	.1	1	28	2460	2000	1	770	75	2	610	9	110	2	1	148	1	1	3.2	100	1	1	1	114	5	.07

* TYPE ROCK GEOCHEM *

SAMPLE NUMBER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CU PPM	FE PPM	K PPM	LI PPM	MG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	U PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR PPM	AU PPB	HG PPB
RF51	.5	7010	1	1	1040	.7	1	5630	1.1	2	4	1650	4040	1	1030	534	2	2930	3	30	145	1	91	1	1	3.5	22	1	1	1	19	1	110
RF52	1.1	4240	13	1	113	.4	1	120	.2	2	4	5160	2250	1	250	209	5	70	1	20	376	1	3	1	1	2.7	37	1	1	1	59	2	120
RF53	.4	6520	1	1	122	.7	1	3090	.1	1	1	2260	5010	1	900	229	1	3520	1	20	18	1	33	1	1	1.7	6	1	1	1	12	1	25
RF54	.2	2100	13	1	50	.2	1	80	.1	2	3	3110	1870	1	50	152	16	220	3	120	22	1	6	1	1	2.4	6	1	1	2	124	3	60
RF55	.1	1890	23	1	41	.1	1	10	.1	2	2	2860	2410	1	20	26	8	270	2	30	4	1	2	1	1	1.1	1	1	1	3	110	2	55
RF56	.2	3530	1	1	215	.6	1	2210	.9	5	4	19850	6190	1	1110	991	2	1650	1	550	11	1	26	1	1	12.1	29	1	1	1	68	1	155
RF57	.1	4410	1	1	207	.4	1	2930	.3	4	4	15440	6030	1	1710	704	4	2440	1	470	7	1	40	1	1	9.9	36	1	1	1	58	1	115
RF58	.3	3770	1	1	121	.2	1	600	.1	2	3	10950	1450	1	330	107	2	240	1	330	6	1	17	1	1	4.7	37	1	1	1	63	1	80
RF59	.2	4670	4	1	75	.6	1	1260	.3	4	6	17380	1690	1	450	430	3	270	1	670	14	1	7	1	1	10.0	168	1	1	1	39	2	60
RF60	.4	3720	1	1	204	.5	1	2410	1.2	4	2	13900	7960	1	1730	739	1	1560	1	440	6	1	29	1	1	12.2	61	1	1	1	48	3	25
RF61	.2	4720	10	1	123	.4	1	20	.5	3	3	10840	2720	1	320	492	3	110	1	360	17	1	15	1	1	3.7	29	1	1	1	43	4	120
RF62	.3	3530	15	1	72	.2	1	200	.1	1	2	5570	1740	1	160	38	4	20	1	170	34	1	5	1	1	2.2	24	1	1	1	54	2	20
RF63	1.8	3850	5	1	84	.6	1	10	3.6	4	3	24090	2670	1	300	507	2	20	1	220	88	1	6	1	1	1.8	615	1	1	1	33	6	185
RF64	88.7	3280	813	1	127	1.1	5	260	97.3	21	43	91550	1270	1	930	7248	5	10	3	840	1011	233	7	1	1	26.7	7763	1	2	1	29	42	115
RF65	5.0	3380	34	1	111	.8	1	710	5.0	12	23	31370	1550	1	350	2023	7	10	6	900	291	11	6	1	1	14.9	497	1	1	1	37	6	40
RF66	4.1	3720	26	1	187	.6	1	10	1.3	9	21	43180	2020	1	100	123	6	10	1	1030	278	3	10	1	1	10.9	195	1	1	1	35	5	205
RF67	.2	3520	1	1	78	.6	1	1250	.4	5	4	15790	720	1	550	577	3	310	2	500	7	1	8	1	1	14.1	34	1	1	1	51	2	75
RF68	.8	6590	76	17	86	.6	1	2290	2.0	12	8	18970	900	1	1280	308	4	470	1	1100	9	1	24	2	1	14.4	32	1	1	1	19	1	15
RF69	.6	10180	184	1	197	.7	2	850	4.6	8	2	37070	1240	1	910	271	18	720	1	760	9	1	50	1	1	20.4	36	1	1	1	22	2	10
RF70	1.2	8930	16	1	107	1.1	3	25310	3.1	27	13	46180	630	1	8380	1226	3	1730	32	2300	23	1	61	1	1	114.6	91	2	1	4	62	1	30
RF71	.8	7050	7	1	89	.3	2	2520	.7	6	15	12480	2030	1	1480	302	1	540	2	920	5	1	16	1	1	39.9	27	1	1	1	42	4	15
RF72	.2	2310	11	1	56	.1	1	10	.1	1	2	2140	2110	1	50	17	3	220	2	30	1	1	8	1	1	1.2	4	1	1	1	87	2	1400
RF73	.6	24110	1	1	1315	.7	1	9420	1.0	2	1	1300	6610	1	3030	255	2	1850	4	20	1	1	566	5	2	2.0	17	1	1	1	7	3	40



* TYPE HEAVY MINERALS *

SAMPLE NUMBER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CU PPM	FE PPM	K PPM	LI PPM	MG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	U PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR PPM	AU PPB	HM %
RF51	3.2	810	42	1	259	.4	1	1000	.1	27	99	11750	750	1	330	138	11	530	49	140	634	1	13	1	1	6.0	154	1	1	5	593	10	.05
RF52	2.1	770	130	1	93	.7	5	420	.1	10	58	27350	600	1	280	231	7	190	33	90	262	1	3	1	1	8.0	111	1	1	14	2021	5	.07
RF53	4.2	1070	1	1	92	.1	1	1000	1.8	16	20	4530	1280	1	360	72	4	860	14	90	85	1	9	1	1	2.4	130	1	1	2	151	5	.07
RF54	3.3	400	1172	1	83	2.4	9	350	.1	55	171	163390	250	1	420	1109	35	90	177	230	129	15	12	1	1	38.7	227	3	4	93	13540	250	.08
RF55	1.8	230	890	1	76	1.4	11	190	.1	102	114	116390	290	1	350	888	37	90	147	190	81	10	10	1	1	30.5	236	3	2	76	10065	5	.06
RF56	2.1	560	588	1	140	2.1	7	5450	.1	34	89	103380	1180	1	1600	1607	23	410	102	2670	122	1	20	1	1	38.1	166	2	1	50	7173	5	.07
RF57	.9	620	289	1	111	1.2	1	3860	.1	23	45	55980	1510	1	3500	941	15	590	46	1560	48	1	14	1	1	21.6	328	1	1	25	3423	5	.09
RF58	2.1	850	344	1	90	.9	1	870	.1	20	62	59960	640	1	300	442	12	100	54	500	75	1	11	1	1	15.0	192	1	1	29	4109	5	.11
RF59	.7	240	62	1	40	.4	1	3650	.1	7	22	18890	290	1	650	279	4	70	14	1850	27	1	5	1	1	5.7	97	1	1	5	762	5	.09
RF60	2.8	690	340	1	119	1.4	6	8200	.1	23	84	68270	1300	1	3520	1201	15	260	70	4090	79	1	14	1	1	28.0	259	2	2	27	3795	6900	.06
RF61	10.8	1630	141	1	75	1.2	10	650	.1	12	64	52940	1450	1	360	377	6	100	19	960	80	10	29	1	1	12.0	267	1	1	7	1007	11000	.10
RF62	4.9	480	40	1	32	.4	1	200	2.8	6	43	18450	480	1	100	141	3	20	25	130	37	1	2	1	1	5.3	196	1	1	9	1270	33800	.06
RF63	3.6	3150	158	12	60	3.6	6	630	16.8	32	40	263140	1970	1	2660	5262	15	100	1	1600	297	59	10	1	1	15.0	5697	2	4	3	346	50	.36
RF64	70.2	120	1352	10	79	.1	1	660	124.7	31	133	390960	320	1	10	7821	1	10	1	720	1131	90	1	1	1	15.8	12235	1	1	1	1	155	3.32
RF65	59.7	2860	385	10	173	5.3	7	8680	6.6	85	215	271520	1200	1	1270	3337	31	50	30	7530	812	193	22	1	1	61.7	3138	2	5	5	702	50	.36
RF66	20.5	1530	139	11	2	.1	1	280	.1	81	150	293920	1160	3	80	251	1	60	1	880	191	16	6	1	1	24.1	587	1	2	1	1	94	1.73
RF67	3.3	1200	306	1	231	2.1	8	15680	.1	76	96	111990	410	2	820	782	13	180	62	8150	127	14	25	1	1	21.6	311	2	2	21	2943	5	.15
RF68	4.2	3690	251	1	90	3.0	6	71940	.1	72	64	142760	510	2	1670	3215	14	580	2	37380	95	8	109	3	2	78.3	449	3	3	3	359	25	.17
RF69	2.6	18190	818	7	382	6.4	13	12030	.1	58	45	355830	2480	1	3350	4839	67	860	1	8050	40	15	61	1	1	195.6	561	3	6	1	1	192	.28
RF70	1.6	1220	48	6	120	2.3	9	16290	.1	49	33	128480	180	1	14470	1749	6	210	39	2670	51	13	29	2	1	342.9	197	2	4	2	100	10	.76
RF71	3.6	2180	97	1	65	1.8	10	17850	.1	23	67	70690	660	1	1050	510	8	170	35	8730	29	1	26	1	1	242.1	442	2	2	8	1061	5	.19
RF72	.6	460	770	1	50	2.1	10	220	.1	69	164	108030	450	1	260	854	31	100	149	180	11	3	8	1	1	26.1	215	2	2	64	9151	5	.12
RF73	1.8	4700	1	1	352	.4	1	2540	.1	1	28	2460	2000	1	770	75	2	610	9	110	2	1	148	1	1	3.2	100	1	1	1	114	5	.07

* TYPE ROCK GEOCHEM *

SAMPLE NUMBER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CU PPM	FE PPM	K PPM	LI PPM	MG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	U PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR PPM	AU PPB	HG PPB
RF51	.5	7010	1	1	1040	.7	1	5630	1.1	2	4	1650	4040	1	1030	534	2	2930	3	30	145	1	91	1	1	3.5	22	1	1	1	19	1	110
RF52	1.1	4240	13	1	113	.4	1	120	.2	2	4	5160	2250	1	250	209	5	70	1	20	376	1	3	1	1	2.7	37	1	1	1	59	2	120
RF53	.4	6520	1	1	122	.7	1	3090	.1	1	1	2260	5010	1	900	229	1	3520	1	20	18	1	33	1	1	1.7	6	1	1	1	12	1	25
RF54	.2	2100	13	1	50	.2	1	80	.1	2	3	3110	1870	1	50	152	16	220	3	120	22	1	6	1	1	2.4	6	1	1	2	124	3	60
RF55	.1	1890	23	1	41	.1	1	10	.1	2	2	2860	2410	1	20	26	8	270	2	30	4	1	2	1	1	1.1	1	1	1	3	110	2	55
RF56	.2	3530	1	1	215	.6	1	2210	.9	5	4	19850	6190	1	1110	991	2	1650	1	550	11	1	26	1	1	12.1	29	1	1	1	68	1	155
RF57	.1	4410	1	1	207	.4	1	2930	.3	4	4	15440	6030	1	1710	704	4	2440	1	470	7	1	40	1	1	9.9	36	1	1	1	58	1	115
RF58	.3	3770	1	1	121	.2	1	600	.1	2	3	10950	1450	1	330	107	2	240	1	330	6	1	17	1	1	4.7	37	1	1	1	63	1	80
RF59	.2	4670	4	1	75	.6	1	1260	.3	4	6	17380	1690	1	450	430	3	270	1	670	14	1	7	1	1	10.0	168	1	1	1	39	2	60
RF60	.4	3720	1	1	204	.5	1	2410	1.2	4	2	13900	7960	1	1730	739	1	1560	1	440	6	1	29	1	1	12.2	61	1	1	1	48	3	25
RF61	.2	4720	10	1	123	.4	1	20	.5	3	3	10840	2720	1	320	492	3	110	1	360	17	1	15	1	1	3.7	29	1	1	1	43	4	120
RF62	.3	3530	15	1	72	.2	1	200	.1	1	2	5570	1740	1	160	38	4	20	1	170	34	1	5	1	1	2.2	24	1	1	1	54	2	20
RF63	1.8	3850	5	1	84	.6	1	10	3.6	4	3	24090	2670	1	300	507	2	20	1	220	88	1	6	1	1	1.8	615	1	1	1	33	6	185
RF64	88.7	3280	813	1	127	1.1	5	260	97.3	21	43	91550	1270	1	930	7248	5	10	3	840	1011	233	7	1	1	26.7	7763	1	2	1	29	42	115
RF65	5.0	3380	34	1	111	.8	1	710	5.0	12	23	31370	1550	1	350	2023	7	10	6	900	291	11	6	1	1	14.9	497	1	1	1	37	6	40
RF66	4.1	3720	26	1	187	.6	1	10	1.3	9	21	43180	2020	1	100	123	6	10	1	1030	278	3	10	1	1	10.9	195	1	1	1	35	5	205
RF67	.2	3520	1	1	78	.6	1	1250	.4	5	4	15790	720	1	550	577	3	310	2	500	7	1	8	1	1	14.1	34	1	1	1	51	2	75
RF68	.8	6590	76	17	86	.6	1	2290	2.0	12	8	18970	900	1	1280	308	4	470	1	1100	9	1	24	2	1	14.4	32	1	1	1	19	1	15
RF69	.6	10180	184	1	197	.7	2	850	4.6	8	2	37070	1240	1	910	271	18	720	1	760	9	1	50	1	1	20.4	36	1	1	1	22	2	10
RF70	1.2	8930	16	1	107	1.1	3	25310	3.1	27	13	46180	630	1	8380	1226	3	1730	32	2300	23	1	61	1	1	114.6	91	2	1	4	62	1	30
RF71	.8	7050	7	1	89	.3	2	2520	.7	6	15	12480	2030	1	1480	302	1	540	2	920	5	1	16	1	1	39.9	27	1	1	1	42	4	15
RF72	.2	2310	11	1	56	.1	1	10	.1	1	2	2140	2110	1	50	17	3	220	2	30	1	1	8	1	1	1.2	4	1	1	1	87	2	1400
RF73	.6	24110	1	1	1315	.7	1	9420	1.0	2	1	1300	6610	1	3030	255	2	1850	4	20	1	1	566	5	2	2.0	17	1	1	1	7	3	40

* TYPE SOIL GEOCHEM *

SAMPLE NUMBER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CU PPM	FE PPM	K PPM	LI PPM	MG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	U PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR PPM	AU PPB	HG PPB
SED11	.1	7950	12	1	78	.6	2	2300	1.9	9	10	24580	500	1	4050	401	2	120	5	450	46	1	11	1	1	45.5	179	1	1	1	9	1	55
SED12	.1	9180	1	1	97	.6	3	3510	1.2	12	7	25740	570	1	5110	826	3	240	8	690	56	1	19	1	1	48.8	79	1	1	1	12	2	60
SED13	.1	7800	5	1	70	.7	2	2940	.6	10	9	22910	670	1	4130	613	3	210	7	630	25	1	13	1	1	41.7	137	1	1	1	10	3	60
SED14	.5	8890	7	1	225	.9	3	2900	1.7	13	16	28350	880	1	4240	965	3	110	6	560	125	1	12	1	1	45.1	108	1	1	1	9	2	45
SED15	.7	14070	14	1	117	1.0	4	3630	2.7	13	12	34620	1040	1	5080	1133	3	130	8	510	65	1	18	1	1	61.5	360	1	1	1	14	2	70
SED16	.7	16910	10	1	125	1.2	5	4340	2.3	17	20	38080	1120	1	7060	1414	4	200	11	630	57	1	18	1	1	77.6	203	2	1	1	17	1	70
SED17	.7	12040	20	1	107	1.1	4	4830	1.7	16	15	33270	1080	1	5790	1362	3	290	10	630	42	1	20	1	2	66.9	148	2	2	1	16	3	75
SED18	1.0	12060	13	1	88	1.3	7	6150	1.6	22	16	63960	1080	1	5380	1196	3	280	5	780	54	1	22	1	1	170.0	138	2	4	3	27	2	60
SED19	.5	13290	6	1	108	1.0	5	6080	2.0	20	17	42900	1130	1	6450	1681	4	410	11	760	36	1	21	1	1	103.0	124	2	2	2	20	21	55
SED20	.4	12890	4	1	139	1.1	4	5180	1.6	16	13	36500	1130	1	5130	1335	3	430	13	730	29	1	26	1	1	77.3	91	1	1	2	20	2	60
SED21	.6	14750	9	1	143	1.3	5	5690	2.8	20	14	41350	1070	1	6440	1924	4	440	19	860	112	1	26	1	1	83.0	101	2	1	2	24	4	55
SED22	.2	13590	2	1	155	.8	4	3550	.2	12	17	23980	1220	1	5750	507	3	450	9	480	11	1	22	1	1	59.1	59	1	1	1	18	3	55
SED23	3.1	13360	25	1	101	.9	3	2390	2.5	12	21	29020	1560	1	3680	1509	3	150	7	510	394	6	16	1	1	54.8	328	1	1	1	15	2	60
SED24	.7	15550	2	1	101	.9	4	6340	1.9	15	19	34270	1240	1	6730	852	3	340	9	640	29	1	20	1	1	78.7	112	1	1	1	18	1	45

* TYPE HEAVY MINERALS *

SAMPLE NUMBER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CU PPM	FE PPM	K PPM	LI PPM	MG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	U PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR PPM	AU PPB	HG PPB	HM %
SED11	.8	6300	22	1	350	1.1	6	6580	.3	16	10	57680	160	3	2840	327	1	30	1	730	31	1	19	1	1	155.8	79	1	2	1	1	1	50	3.22
SED12	6.9	5360	19	1	2600	1.1	6	5760	.3	16	25	54150	150	3	3210	867	2	50	1	790	17	3	16	1	1	117.3	86	1	2	1	1	1	30	4.04
SED13	2.7	6670	36	1	300	1.1	7	7820	2.8	16	19	49650	260	3	3400	1086	1	70	5	980	51	2	21	1	1	101.7	296	1	2	1	1	1	130	2.77
SED14	2.0	7560	25	1	22000	1.2	6	7670	.3	19	15	52060	320	3	3050	402	1	70	4	650	26	1	26	1	1	85.7	64	1	2	1	1	1	50	1.76
SED15	.5	8720	23	1	240	1.3	8	8550	.3	16	9	58730	240	4	3210	478	2	50	1	490	36	1	27	1	1	154.4	126	1	2	1	1	1	20	2.97
SED16	.1	8740	3	1	600	.8	5	6750	.3	12	8	30630	280	5	4140	553	1	80	4	390	15	1	20	1	1	80.4	69	1	1	1	1	1	5	1.79
SED17	.1	7590	39	1	450	1.4	8	7610	.3	19	13	67260	250	3	3260	571	1	80	1	600	31	1	22	1	1	169.6	92	1	2	1	1	1	30	3.31
SED18	.8	6400	34	1	200	2.1	12	7270	.3	28	18	112520	240	2	2790	701	1	60	1	900	38	2	19	1	1	296.7	110	2	3	1	1	392	5	9.35
SED19	.3	7760	44	1	240	1.7	8	7850	.3	19	12	76200	200	3	3570	557	1	70	1	740	26	3	21	1	1	186.6	87	1	3	1	1	2	5	5.87
SED20	.3	7210	34	1	400	1.7	9	7400	.3	22	12	80130	210	3	3030	709	2	70	1	920	23	1	21	1	1	197.8	103	1	2	1	1	16	5	3.61
SED21	.1	7770	19	1	280	1.3	7	7410	.3	19	24	63360	230	4	3530	707	2	110	1	740	23	1	21	1	1	144.2	66	1	2	1	1	3	20	3.56
SED22	.3	8460	17	1	400	.9	8	8380	.3	16	12	46310	230	3	3830	396	2	70	3	630	19	1	24	1	1	126.2	45	1	2	1	1	1	40	2.05
SED23	.8	8340	47	1	1600	1.3	7	7720	.3	17	15	60690	290	3	3030	682	2	40	1	650	81	5	24	1	1	139.3	179	1	2	1	1	2	90	1.54
SED24	.4	8760	16	1	1250	.7	6	9050	.3	14	13	42240	200	3	3650	501	2	90	2	560	15	1	25	1	1	114.9	56	1	2	1	1	1	40	2.91

FEN GROUP CLAIMS

SCALE: 1:10000

DATE: SEP. 1989

Houston Area, B.C.

DRAWN BY S.Z.

GEOCHEMICAL H.M. SURVEY

Silts & Rocks

DRAWING NUMBER FIG. 4