82-#958 -

12 #10979

FRAN PROPERTY

GREENWOOD MINING DIVISION

GEOCHEMISTRY AND GEOPHYSICS

N.T.S. 82E/6E

GEOLOGICAL BRANCH ASSESSMENT REPORT

10,979

JANUARY 1983

J.C. Ridley, B.Sc.

A.G. Troup, P.Eng.

CLAIMS

GROUP NAME	CLAIM NAME	RECORD NUMBER	ANNIVERSARY DATE
Rumford	Fran	1886	November 23
	Wombat	2586	December 22
	Rumford	2587	December 22
	Kid 1	3046	April 6
	Kid 2	3047	April 6

Location: 49°25'N, 119°05'W

Owner: Canstat Petroleum Corporation

Operator: Canstat Petroleum Corporation

Consultant: A.G. Troup, P.Eng., Archean Engineering

Project Geologist: J.C. Ridley, B.Sc., Mark Management

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SUMMARY

The Fran property is a silver-lead-zinc and gold-copper prospect located in south central British Columbia. The property is comprised of fifteen claims and one crown grant totalling 230 units.

In 1982 Canstat Petroleum Corp. of Vancouver, B.C. carried out geological mapping, geochemistry and geophysics over the Rumford claim group of 134 units.

The results of work on the May, Kid 1 and Kid 2 claims suggest that silver-lead-zinc and occasionaly copper mineralization occurs along the contacts between granodiorite and younger intrusives.

On the Wombat claim a $40m^2$ gold-copper showing was found near a granodiorite - alaskite contact. An extensive copper anomaly in soils extends to the southeast suggesting that mineralization may be wide spread.

On the Fran Claim and Goldrop Crown Grant several silver-lead-zinc veins were found during previous surveys. Lead, zinc and silver soil anomalies and VLF conductors found in the vicinity of these showings suggest that additional veins remain to be discovered.

Additional exploration entailing detailed geological mapping, geochemical and geophysical surveys, trenching and diamond drilling is recommended.

FRAN PROPERTY
GREENWOOD MINING DIVISION
GEOCHEMISTRY AND GEOPHYSICS

1. INTRODUCTION

This report covers the Rumford claim group within the Fran property. The property is a lode silver-lead-zinc and gold-copper prospect located in south-central British Columbia.

A two-person field crew was stationed at the community of Beaverdell from June 28 to July 28, 1982, to carry out geological, geophysical, geochemical and physical work over the property.

The purpose of the project was to investigate mineralized showings, geophysical conductors and geochemical soil anomalies delineated by the 1981 field programmes.

The programme was supervised by Mark Management project geologist, J.C. Ridley under the direction of Archean Engineering consulting geologist, A.G. Troup.

1.1 LOCATION AND ACCESS

The Fran property is situated in the Greenwood Mining District in southern British Columbia. (Fig.1.1).

The Rumford group covers an area of 26.5 square kilometres on the southwest slope of Wallace Mountain, 4 kilometres southeast of the community of Beaverdell. The group is centred on latitude 49°25'N and longitude 119°05'W.

Access to the Rumford group is provided by a network of logging haul roads that intersect the Rock Creek - Beaverdell Highway at several points.

1.2 PHYSIOGRAPHY

The Rumford group is situated over a rolling plateau-like area on the southwest slope of Wallace Mountain and extends across the valley of the West Kettle River. The mean elevation of the group is 3,500 feet (1,067 metres) and maximum relief is on the order of 2,000 feet (610 metres). The area is drained by the southwest flowing West Kettle River and its westward and eastward flowing tributaries.

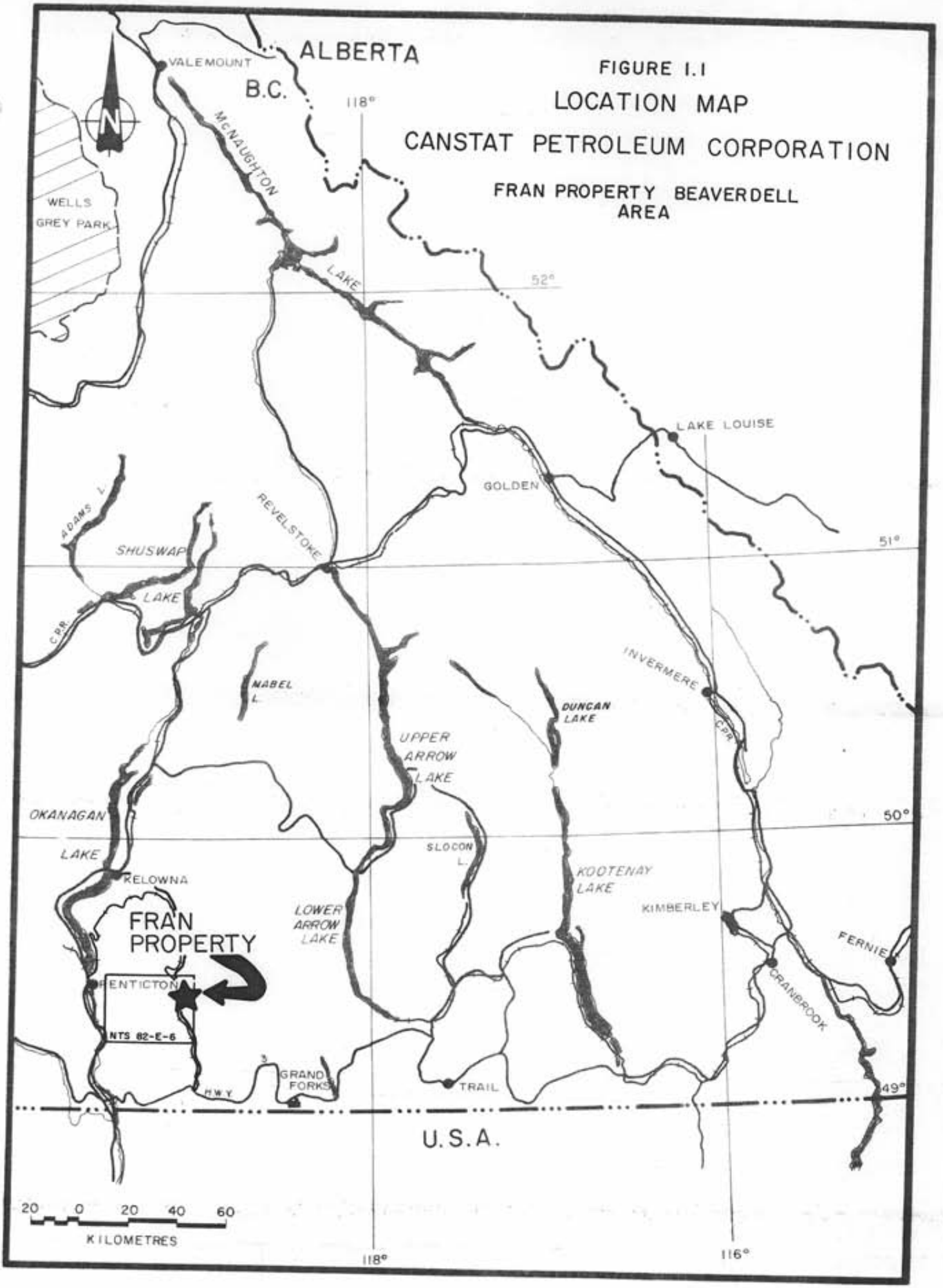


FIGURE 1.1
LOCATION MAP
CANSTAT PETROLEUM CORPORATION
FRAN PROPERTY BEAVERDELL AREA
ALBERTA
B.C.
VALEMOUNT
McNAUGHTON LAKE
WELLS GREY PARK
118°
52°
LAKE LOUISE
GOLDEN
REVELSTOKE
ADAMS L.
SHUSWAP LAKE
C.P.R.
51°
NABEL L.
INVERMERE
DUNCAN LAKE
UPPER ARROW LAKE
OKANAGAN LAKE
50°
SLOCON L.
KOOTENAY LAKE
KELOWNA
KIMBERLEY
FERNIE
FRAN PROPERTY
LOWER ARROW LAKE
PENTICTON
NTS 82-E-6
CRANBROOK
GRAND FORKS
TRAIL
HWY 3
49°
U.S.A.
20 0 20 40 60
KILOMETRES
118°
116°

Vegetation on the Rumford group consists predominantly of open bush, mostly tamarack, fir and ponderosa pine trees. There is some heavier bush consisting of larch, lodge pole pine and minor spruce. Black spruce and alder are found along stream channels.

1.3 CLAIM INFORMATION

The Rumford group (Fig.1.3) consists of two two-post mineral claims and five modified grid claims; four of 20 units, two of 18 units and one of 15 units. The claims are held by Canstat Petroleum Corp. Two of the modified grid claims, Babe and Fran, and the two two-post claims are held by Canstat under an option agreement with the owner of the claims, J. Kucherhan of Penticton, B.C.

Record numbers and expiry dates for the claims are given in Table 1.3.

TABLE 1.3

CLAIM STATUS

GROUP NAME	CLAIM NAME	UNITS	RECORD NO	EXPIRY DATE
RUMFORD	Wombat	18	2586	22/12/87
	Babe	18	1870	16/11/84
	Fran	20	1886	23/11/84
	Jay 2	1	34615	18/12/89
	Jay 3	1	34616	18/12/88
	Rumford	20	2587	22/12/85
	May	15	1557	1/06/84
	Goldrop (Crown Grant)	1	1195S	--
	Kid 1	20	3046	6/04/85
	Kid 2	20	3047	6/04/84
DEER	Deer 1	18	2686	7/05/83
	Deer 2	20	2687	7/05/83
	Tick 1	15	2685	7/05/83
	Tick 2	20	2697	11/05/83
	Grouse 1	14	2695	11/05/83
	Grouse 2	9	2696	11/05/83

1.4 History

The Fran property covers an area which has been worked intermittently since 1916. Surface trenching, underground drifting and soil sampling was carried out during the years of 1916-1918, 1959-60 and 1971-73. This work exposed two silver-lead-zinc bearing quartz veins and associated shear zones. A six-ton bulk sample of ore shipped from one adit yielded 10,885 gm of silver, 200 kg of lead and 380 kg of zinc.

The property was optioned by Canstat Petroleum Corporation from J. Kucherhan in 1980. During 1980 and 1981 Canstat conducted soil sampling, rock chip sampling, a magnetometer survey and a VLF-EM-16 survey over the property. Several Cu, Pb, Zn and Ag anomalies in soils and VLF conductors were outlined. A Gossan containing chalcopyrite assaying 0.876 oz./ton Au (27.2 gm/tonne) was discovered. Peripheral claims were staked following these results. (See 1981 Assessment Report for details).

1.5 Work by Canstat Petroleum 1982

In 1982, field work was conducted by Canstat Petroleum Corp. from June 28 to July 28. During this period the following surveys were completed:

1) Detailed geological mapping (1:5,000 scale) over areas of interest on the May, Kid 1, Wombat and Fran Claims.

2) Reconnaissance geological mapping (1:5,000 on the Kid 2 Claim and the Goldrop Crown Grants.

3) Follow-up VLF-EM lines on the May, Wombat and Fran grids.

4) Detailed soil sampling (3 metre intervals) over exposed Ag-Pb-Zn veins on the Fran claim.

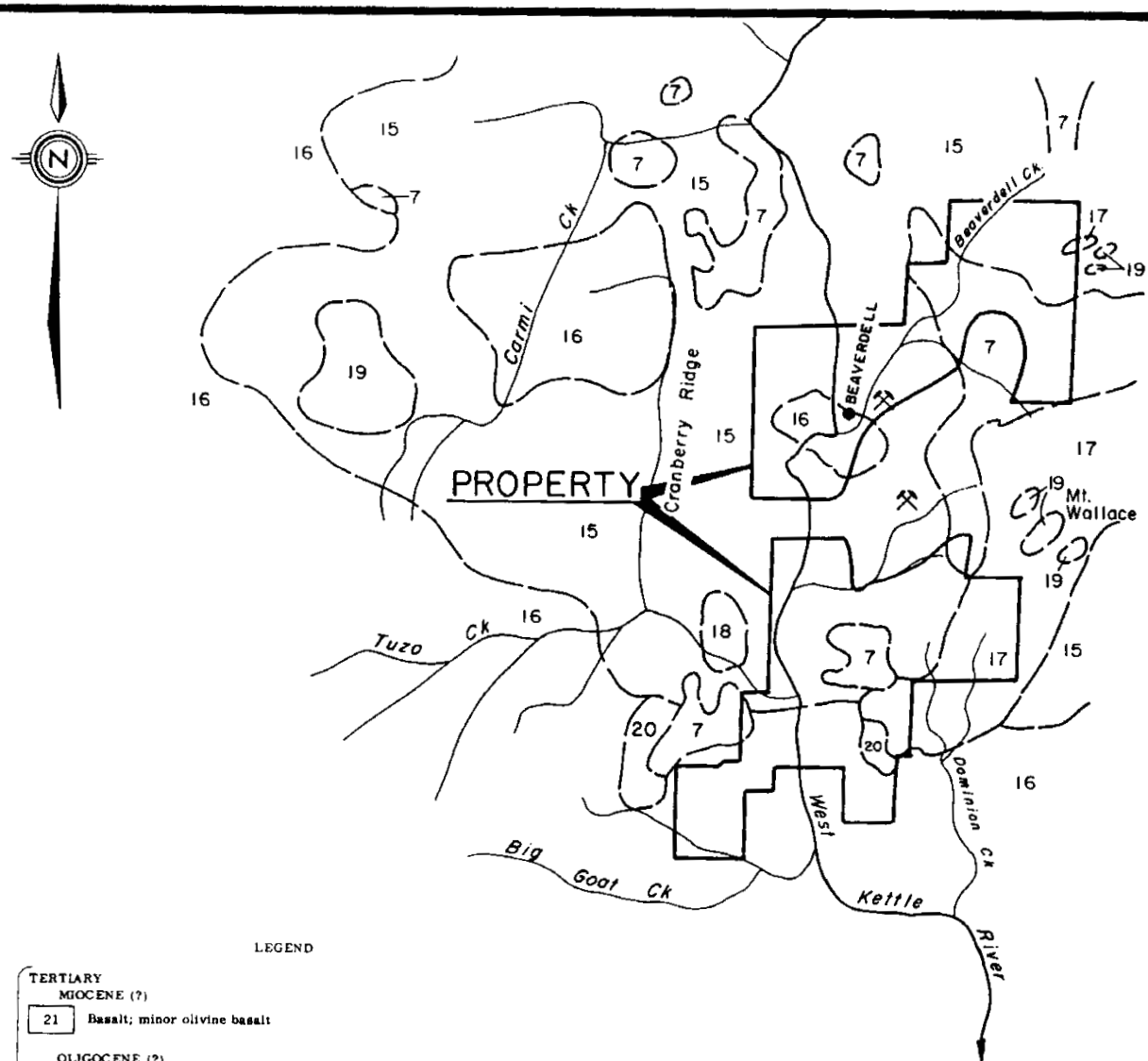
5) Rock chip sampling over all mineralization, gossans, quartz veins and silicified zones.

2. GEOLOGY

2.1 General Geology

The geology of the Beaverdell area was mapped by Little of the Geological Survey of Canada in 1958-59 (Fig.2.1).

The Rumford claim group is underlain by Cretaceous age Nelson plutonic rocks (Unit 15) comprised of granodiorite, quartz diorite and alaskite porphyry. The younger alaskite porphyry crosscuts the older dioritic intrusives in several dykes and small stocks. At the southern edge of the property a younger granite porphyry, of the Valhalla plutonic complex (Unit 16),intrudes all of the Nelson plutonic rocks. Andesitic, dioritic and microdioritic dykes of Eocene or Oligocene age crosscut all three of the intrusive bodies (Unit 19). (Maps 2.1.1 to 2.1.3).



LEGEND

CENOZOIC

TERTIARY

MIOCENE (?)

21 Basalt; minor olivine basalt

OLIGOCENE (?)

20 CORYELL PLUTONIC ROCKS: syenite, granite; minor monzonite and shonkinite

EOCENE OR OLIGOCENE

19 Andesite, trachyte, minor basalt; locally, interbedded tuff and shale; 19a, andesite and trachyte flows and agglomerate; 19b, conglomerate, sandstone, shale, tuff; minor agglomerate and breccia; coal; 19c, andesite and trachyte; 19d, agglomerate and conglomerate

PALEOCENE OR EOCENE

18 Porphyritic granite and rhyolite

17 Conglomerate, sandstone, shale, tuff

MESOZOIC

CRETACEOUS (?)

16 VALHALLA PLUTONIC ROCKS: granite, granodiorite

15 NELSON PLUTONIC ROCKS: granodiorite, quartz diorite, diorite; granite, quartz monzonite, syenite, monzonite

PERMIAN AND/OR TRIASSIC

ANARCHIST GROUP

7 Greenstone, quartzite, greywacke, limestone; locally paragneiss

Canstat Petroleum Corporation

FRAN GROUP - BEAVERDELL AREA

GREENWOOD MINING DIVISION - B.C. NTS 82-E-6E

REGIONAL GEOLOGY MAP

SCALE 1: 155,342

Feb. 16, 1983

J.C.R. /r.w.r.

FIGURE 2.1

2.2 Mineralization

Two stages of mineralization have been found on the Fran property.

Silver bearing galena and sphalerite mineralization in quartz veins occur on the Fran mineral claim and Goldrop crown grant. Some of these veins also contain some gold and copper.

Over the Wombat claim group gossans containing chalcopyrite and pyrite occur in silicified granodiorite often near a contact with one of the intruding dykes or small stocks. Samples from these zones assay up to 2.57 oz./ton gold.

On the May and Kid 1 and 2 claims silver bearing galena, specular hematite, magnetite, malachite, azurite, chalcopyrite, pyrite and fluorite mineralization occurs in the silicified and sausseritized granodiorite near contacts with younger rocks.

3. GEOCHEMISTRY

3.1 Soil Sampling

3.1.1 Sampling, Sample Preparation and Analytical Procedures.

Soil sampling was carried out at 3 metre intervals on the 26 + 50 E line over the silver-lead-zinc veins and adits on the Fran claim. The purpose of this was to delineate other mineralized veins.

Soil samples were also taken at 10 metre intervals along line 19 + 30 N between two silver-lead-zinc showings: Sample station numbers 034 and 035 on the Fran claim.

All soil samples were collected from the 'B' soil horizon with the aid of a lightweight mattock. The samples were sent to Chemex Labs. Ltd. in North Vancouver for analysis.

In the laboratory, samples were oven-dried at approximately 60^{o}C. The dried samples were sieved to minus 80 mesh and oversized material discarded. The minus 80 mesh fraction was analyzed for the elements Ag, Cu, Pb and Zn by atomic absorption spectrometer after digestion with hot concentrated nitric and hydrochloric acids.

3.1.2 Treatment and Presentation of Results

In assessing the geochemical results, graphic statistical methods were used to separate background from anomalous metal concentration. Threshold and anomalous levels were then determined at the mean plus two standard deviations (x + 2s) and mean plus three standard deviations (x + 3s), respectively, from log probability plots prepared for each element. This data is given in Table 3.1.2.

Sample locations and analytical results are shown on Maps 3.1.2.1 to 3.1.2.5 which accompany this report (Scale - 1:1,500).

Results for all four elements have been contoured at threshold (x + 2s) and anomalous (x + 3s) levels.

TABLE 3.1.2

MEAN, THRESHOLD AND ANOMALOUS METAL

IN 'B' HORIZON SOIL

Values over the Fran Property

Metal	Mean (x)	Threshold (x + 2S)	Anomalous (x + 3S)
Ag	0.055 ppm	0.3 ppm	0.78 ppm
Cu	13 ppm	25 ppm	35 ppm
Pb	9.25 ppm	24.5 ppm	40 ppm
Zn	112 ppm	225 ppm	320 ppm

3.1.3 Discussion of Results

Several anomalous silver and silver-lead and a few anomalous copper and zinc values were obtained on line 26 + 50 E. The largest silver-lead anomalies occur between 17 + 83 N to 17 + 95 N and 18 + 46 N to 18 + 61 N. These two zones are 12m and 15m wide, respectively. The highest silver values in this area occur between 18 + 49 N and 18 + 61 N while the highest lead and zinc values occur between 17 + 86 N to 17 + 95 N. These geochemical anomalies should be investigated further.

3.2 Lithogeochemistry - Rock Chip Sampling

3.2.1 Sampling, Sample Preparation and Analytical Procedures

Rock chip samples were collected from all mineralized showings, gossans, quartz veins and silicified zones, discovered during the survey.

Channel samples were taken across the width of veins, chip samples were taken at regular intervals across the width of gossanous or silicified zones and grab samples were taken where outcrop exposure was poor. The samples were placed in numbered plastic bags and sent to Chemex Labs Ltd. in North Vancouver for analysis.

In the laboratory, samples were put through primary and secondary jaw crushers and a tertiary cone crusher. A sub-sample of approximately 250 gm was then pulverized in a rotary pulverizer. Pulp for precious metal analysis was screened to minus 100 mesh and examined for 'metallics'. The pulp was then fire assayed. All samples were assayed for Au, Ag and Cu. Galena-sphalerite showings were also assayed for lead and zinc.

3.2.2 Presentation and Discussion of Results

Assay results, locations and descriptions of samples are given in Table 3.2.2 and on Maps 2.1.1 to 2.1.3. The association between elements suggests two sets of mineralization: silver-lead-zinc and gold-copper.

Important gold and copper assays were obtained from a showing at station 020. This showing is located immediately northeast of an extensive copper soil anomaly suggesting that similar mineralization may be wide spread.

Table 3.2.2

Assay Results, Locations and Descriptions of Lithogeochemical Samples

Claim	Sample	Location		Cu%	Pb%	Zn%	Ag oz/ton	Au oz/ton	Description
Wombat	020AA	8+45mE	20+80mN	0.04	-	-	0.01	0.003	Quartz pod above silicified granodiorite.
	020A	"	"	0.08	-	-	0.02	0.028	Silicified granodiorite with malachite above massive sulphides.
	020B	"	"	7.00	-	-	4.34	2.572	Massive chalcopyrite, bornite, pyrite in silicified granodiorite 9m x 4.5m on dip slope.
	020C	"	"	0.41	-	-	0.21	0.112	Silicified granodiorite below massive sulphides
	020Z	"	"	0.05	-	-	0.02	0.005	Gossan with chalcopyrite and pyrite in granodiorite.
	061	9+57mE	17+85mN	0.04	-	-	0.07	0.003	Gossan with chalcopyrite and pyrite in granodiorite - .3m^2
	063	8+35mE	20+05mN	0.01	-	-	0.01	0.003	A zone of Several gossans with chalcopyite and pyrite, in granodiorite extending 15m N-S and .25 to .6m at fluctuating heights within the 1.5m high trench.

	078A	12+50mE 17+00mN	0.01	-	-	0.03	0.003	Quartz veins in Fe-stained microgranodiorite dyke- gosan is 20m x 15m.
	078D	" "	0.01	-	-	0.02	0.003	Silicified granodiorite.
Fran	034A	26+90mE-26+83mE 19+30N	0.02	0.97	0.28	6.62	0.003	Chip sample over .7 metre quartz vein containing galena and sphalerite.
	034B	" "	0.54	10.50	24.00	154.91	0.022	Chip sample over .2 metres of massive galena and sphalerite in the above quartz vein.
	035	25+86mE 19+29mN	0.04	1.07	4.60	2.12	0.003	Gossan with quartz stockwork containing galena and sphalerite - .75m^2
	036R	25+70mE 18+95mN	0.11	-	-	0.44	0.018	Gossan in siliceous granodiorite containing chalcopyrite and pyrite
	036W	" "	0.03	-	-	0.06	0.14	Granodiorite wall rock to above
	085	26+50mE 19+30mN	0.01	0.01	0.01	0.01	0.003	Silicified granodiorite
	086	26+50mE 19+30mN	0.01	0.01	0.01	0.02	0.003	Silicified granodiorite

Goldrop Crown Grants	GLDP U	32+50mE	27+30mN	0.93	15.00	16.80	176.96	0.003	Pit - 10 metres deep massive sphalerite and galena in quartz vein in granodiorite
	GLDP L	"	"	0.56	2.17	2.13	55.74	0.006	Trench-below above pit 7 cm quartz vein with sphalerite, galena, chalcopyite malachite and pyrite
	080	30+40mE	24+80mN	0.01	-	-	0.04	0.010	Trench - quartz breccia float
	081	34+80mE	27+60mN	0.01	-	-	0.06	0.003	2 Trenches - Fe-stained quartz vein 9 cm wide - in granodiorite
	082	33+30mE	31+50mN	0.01	-	-	0.65	0.003	Gossan in argillite and granodiorite $25m^2$
May	043	7+50mE	6+00mN	0.02	0.20	0.33	2.38	0.003	Gossan at contact between Granite porphyry, alaskite porphyry, granodiorite and quartz monzonite porphyry
	050	7+80mE	6+50mN	0.01	0.12	0.15	1.42	0.003	Gossan with pyrite in silicified granodiorite above contact with granite porphyry
	052	5+50mE	4+00mN	0.01	0.08	0.4	0.66	0.003	Gossan with pyrite in silicified and sausseritized granodiorite
	087	10E	11+25mN	0.96	0.02	0.40	0.34	0.003	Malachite stained granodiorite with minor pyrite.

4. GEOPHYSICS

4.1 VLF-EM Survey

4.1.1 Instrument and Survey Techniques

A Geonics EM-16 unit was used to carry out follow-up VLF-EM lines over the Fran, Wombat and May grids. The 24.8kHz Seattle, Washington submarine transmitting station was used throughout the survey with in-phase and quadrature readings taken in a northwesterly direction (345^{O}) to insure that south dips would be indicated as negative readings by the instrument. The in-phase dip angle readings were later converted by means of the Fraser filtering techniques (Fraser, 1969) to data which could be contoured.

On the May claim four follow-up lines were run over the large conductor in the southern half of the claim in an attempt to correlate the conductor with the contact between the granite porphyry and the older intrusives. Readings were taken at 10 or 25 metre stations depending on geology.

VLF lines on the Fran and Wombat claims were run over the main mineralized showings 020 and 034 - 035 to investigate the conductivity of these zones and if possible to extend them.

4.1.2 Presentation and Discussion of Results

The results of the VLF-EM surveys are shown on Maps 4.1.2.1 and 4.1.2.2. These maps show the in-phase dip angle and filtered dip angle results (Fraser, 1969) with the filtered data contoured at a 10% contour interval.

The 1982 data on the May claim required recontouring as the large southern conductor was found to parallel and coincide with the contact between the granite porphyry and the older intrusives (Map 4.1.2.1).

On the Wombat claim three intermediate VLF lines, the 9 + 50 E, 8 + 45 E and 7 + 50 E, were run over the area of the 020 gold-copper zone. A conductor extending from 20 + 10 N to 21 + 00 N and passing through the 020 showing was detected on all three lines. This conductor coincides with an east-west striking alaskite porphyry dyke which intrudes the granodiorite from at least 13 + 50 E to 7 E. This suggests that the mineralized zone found at station 020 may follow the contact between the alaskite and the granodiorite.

On the Fran Claim a north-south line run directly over the 034 silver-lead-zinc showing indicated a weak conductor with a fraser filter value of +5. A parallel line 40 metres to the west, between showings 034 and 035, gave only background readings.

5. CONCLUSIONS

The following conclusions have been drawn from the results of the present program:

On the May, Kid 1 and Kid 2 claims, mineralization consisting of fine grained silver bearing galena, specular hematite, magnetite, malachite, azurite, chalcopyrite, pyrite and fluorite occurs in silicified and sausseritized granodiorite adjacent to contacts with younger intrusives. Follow-up VLF lines outlined a major conductor along the contact between the granite porphyry, and the older granodiorite and alaskite intrusive. The abrupt southern termination of anomalous lead, zinc, silver and copper values in soils (1981 data) along this contact suggests that the zone of mineralization is limited to this contact zone and the overlying hanging wall rocks.

Several gossans containing gold bearing chalcopyrite occur in silicified granodiorite on the Wombat claim. These zones usually occur near contacts with younger dykes or small stocks. A VLF conductor coinciding with the gold - copper showing at station 020 follows an alaskite dyke suggesting that mineralization may be controlled by geologic contacts. Widespread copper anomalies (1981 data) in soil over this area suggest potential for extensive gold - copper mineralization.

The Fran claim and Goldrop Crown Grant are underlain by granodiorite cut by quartz veins mineralized with silver bearing galena, sphalerite and some copper and gold. This mineralization and geologic environment is similar to that found at the Highland Bell Mine 4 km to the north.

6. RECOMMENDATIONS

The following work is recommended for the property:

A. On the May claim:

1. Detailed geological mapping of the contact between the granite porphyry and older intrusives.

2. Detailed VLF over the granite porphyry contact.

3. Detailed soil sampling over the granite porphyry contact.

4. Trenching and/or diamond drilling of the VLF conductor and coinciding geochemical anomalies at 17 N, 10 E and of any important targets defined by recommendations 1 through 3 above.

B. On the Wombat claim:

1. Detailed soil sampling over the northern contact between the alaskite dyke and the granodiorite.

2. Detailed geological mapping over all copper soil anomalies.

3. Trenching of the 020 gold-copper showing.

C. On the Fran claim and Goldrop Crown Grant.

1. Detailed geological mapping over the entire area.

2. Detailed soil sampling over areas of known mineralization.

3. Trenching or diamond drilling of all important soil anomalies and surface showings.

Respectfully submitted,

J.C. Ridley, B.Sc.

A.G. Troup, P.Eng.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA A. G. TROUP

References

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Little, H.W. 1961 — Geology Kettle River (West Half) British Columbia. G.S.C. Map 15-1961

Troup, A.G. — Fran property, Geochemistry and Geophysics, 1980.

Troup, A.G. & Ridley, J.C. — Fran property, Geochemistry and Geophysics, 1981.

STATEMENT OF QUALIFICATIONS

J.C. RIDLEY, B.SC.

Academic

1978	B.A. Geography	University of Western Ontario
1981	B.Sc. Geology	University of British Columbia

Practical

1981 - Present	Mark Management Ltd. Vancouver, B.C.	Project Geologist. Involved with geological, geochemical and geophysical aspects of precious metals exploration in B.C.
1980 - 1981	Utah Mines Vancouver, B.C.	Temporary Summer and part-time Winter Geologist in Charge of mapping and diamond drilling of a coal property in N.E. B.C. logging of rotary drilling chip samples on another coal property in N.E. B.C.
1979	Utah Mines Vancouver, B.C.	Temporary Summer. Reconnaissance and detailed mapping, logging of diamond drill core on coal properties in N.E. B.C.

STATEMENT OF QUALIFICATIONS

A. TROUP, P.ENG.

ACADEMIC

1967	B.Sc. Geology	McMaster University, Ontario
1969	M.Sc. Geochemistry	McMaster University, Ontario

PRACTICAL

1981 -	#45-4100 Salish Dr. Vancouver, B.C.	Consulting Geologist with Archean Engineering Ltd.
1977 - 1980	Geological Survey of Malaysia	Project Manager on a CIDA supported mineral exploration survey over peninsular Malaysia.
1969 - 1977	Rio Tinto Canadian Exploration Ltd. Vancouver, B.C.	Geologist involved in all aspects of mineral exploration in B.C., the Yukon and N.W.T.
1968	McMaster University Dept. of Geology Hamilton, Ontario	M.Sc. thesis work. Reconnaissance mapping and geochemical study, Lake Shubenicadia area, Nova Scotia.
1967 (summer)	Canex Aerial Exploration Ltd. Toronto, Ontario	Geologist in charge of detailed mapping and reconnaissance geochemical program in Gaspe, Quebec
1966 (summer)	Mcmaster University Dept. of Geology Hamilton, Ontario	Detailed and reconnaissance mapping in Northern Ontario.
1965 (summer)	International Nickel Co. of Canada Thompson, Manitoba	Detailed mapping in the Thompson area, Manitoba.
1964 (summer)	Geological Survey of Canada Ottawa, Ontario	Regional geochemical survey in the Keno Hill area, Yukon.

COSTS STATEMENT
BEAVERDELL AREA CLAIMS
GEOLOGY, GEOPHYSICS AND GEOCHEMISTRY
27 JUNE - 1 AUGUST 1982

GENERAL COSTS

Food and Accommodation		
3 persons, 60 man days @ $19.70		$ 1,181.83
Supplies		1,382.12
Fuel		840.12
Rental EQUIPMENT		
Gabriel 4WD Bronco, 36 days @ $40	$1,440.00	
1947 km @ $0.15	292.05	
Mark Management 4WD Blazer, 2 days @ $40	80.00	
1080 km @ $0.15	162.00	
Gabriel Field Equipment, 60 man days @ $6	360.00	2,334.05
Repairs		1,613.70
Consultant's Fees		
Archean Engineering		900.00
Report Preparation		2,755.00
TOTAL GENERAL COSTS		$11,006.82

GEOCHEMISTRY COSTS

Salaries and Wages		
2 persons, 27 Jun - 1 Aug, 22 man days @ $67		$ 1,474.00
Benefits @ 20%		294.80
Supplies (Bondar-Clegg Pb Test Kit)		20.80
Analyses (Chemex Labs)		
2 Rocks for AG,AU,CU,MO,PB,ZN @ $12.40	$ 24.80	
7 Rocks for AG,AU,CU @ $10.15	71.05	
1 Rock for AG,AU,CU,SB	13.90	
2 Rocks for AG,AU,CU,PB,ZN @ $12	24.00	
14 Pulp for AU @ $5	70.00	
Assays (Chemex Labs)		
10 Rocks for AG,AU,CU,PB,ZN @ $28.75	287.50	
9 Rocks for AG,AU,CU @ $18.75	168.75	660.00
General Costs Apportioned		
22/58 man days X $11,006.82		4,175.00
TOTAL GEOCHEMISTRY COSTS		$ 6,624.60

GEOPHYSICS COSTS

Salaries and Wages	
2 persons, 27 Jun - 1 Aug, 8 man days @ $67	$ 536.00
Benefits @ 20%	107.20
Rental Equipment	
Gallant Gold Mines EM-16, 32 days @ $25	800.00
General Costs Apportioned	
8/58 man days X $11,006.82	1,518.18
TOTAL GEOPHYSICS COSTS	$ 2,961.38

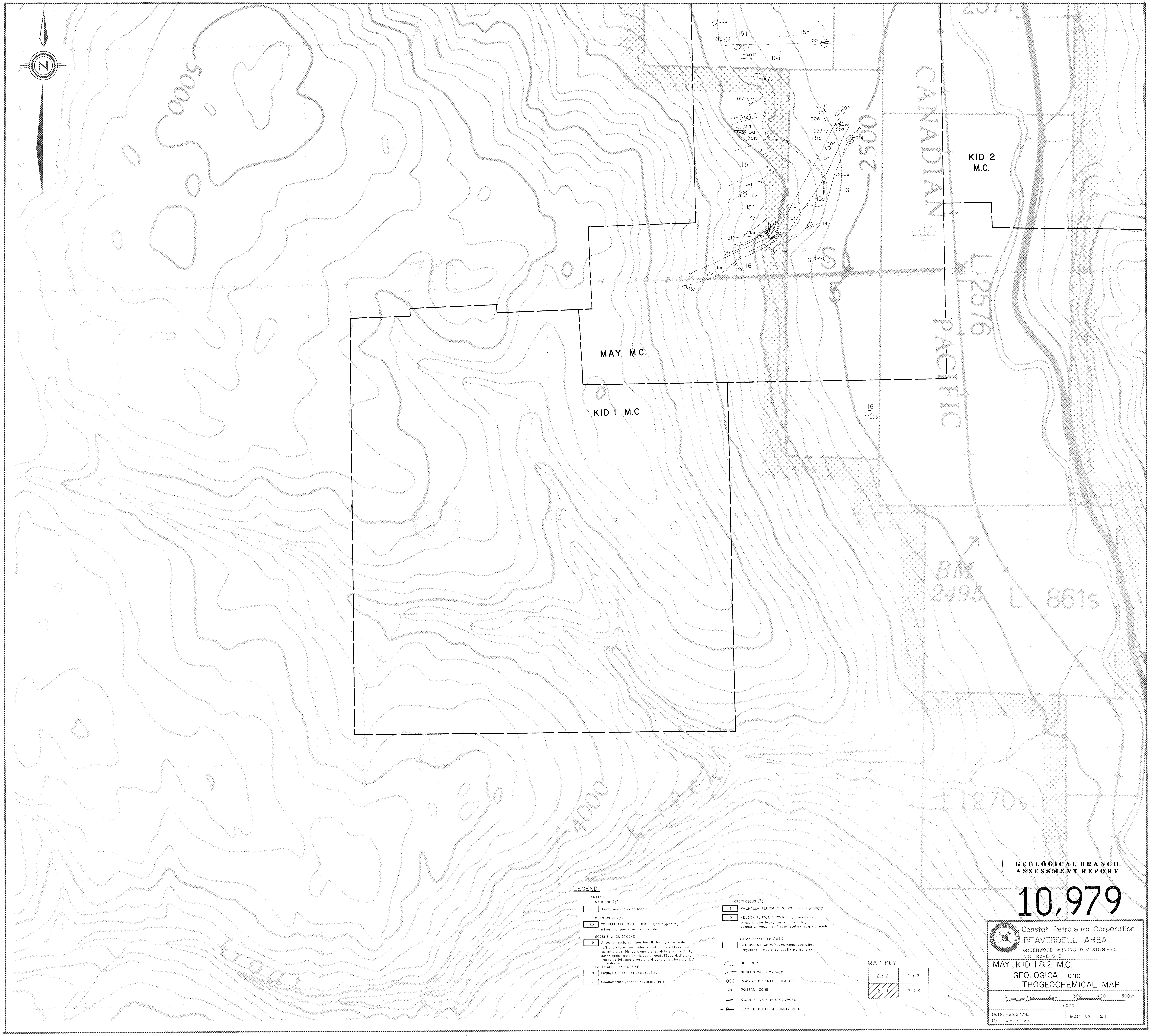
GEOLOGY COSTS

Salaries and Wages	
2 persons, 27 Jun - 1 Aug, 28 man days @ $67	$ 1,876.00
Benefits @ 20%	375.20
General Costs Apportioned	
28/58 man days X $11,006.82	5,313.64
TOTAL GEOLOGY COSTS	$ 7,564.84

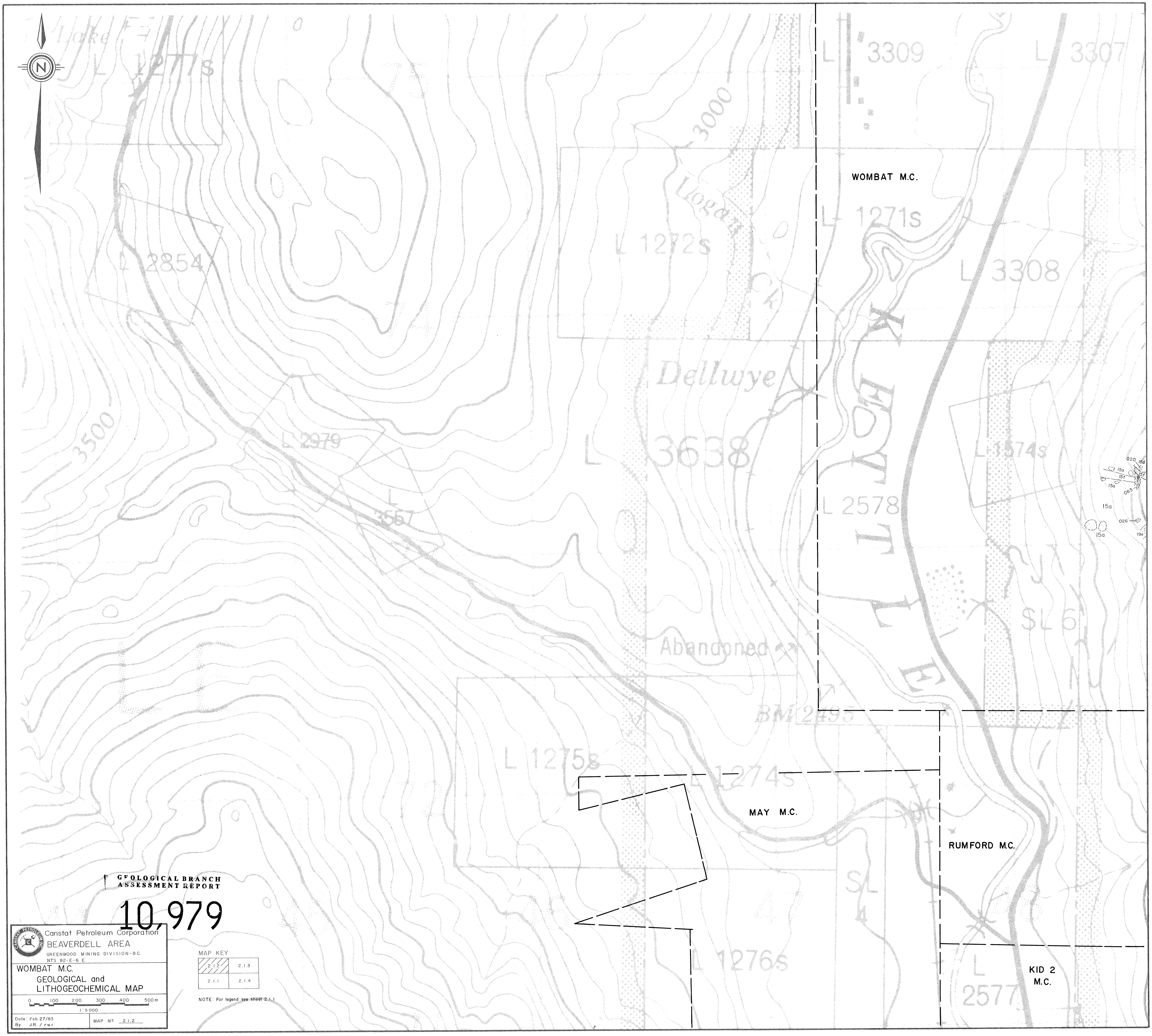
COSTS APPORTIONED TO CLAIMS

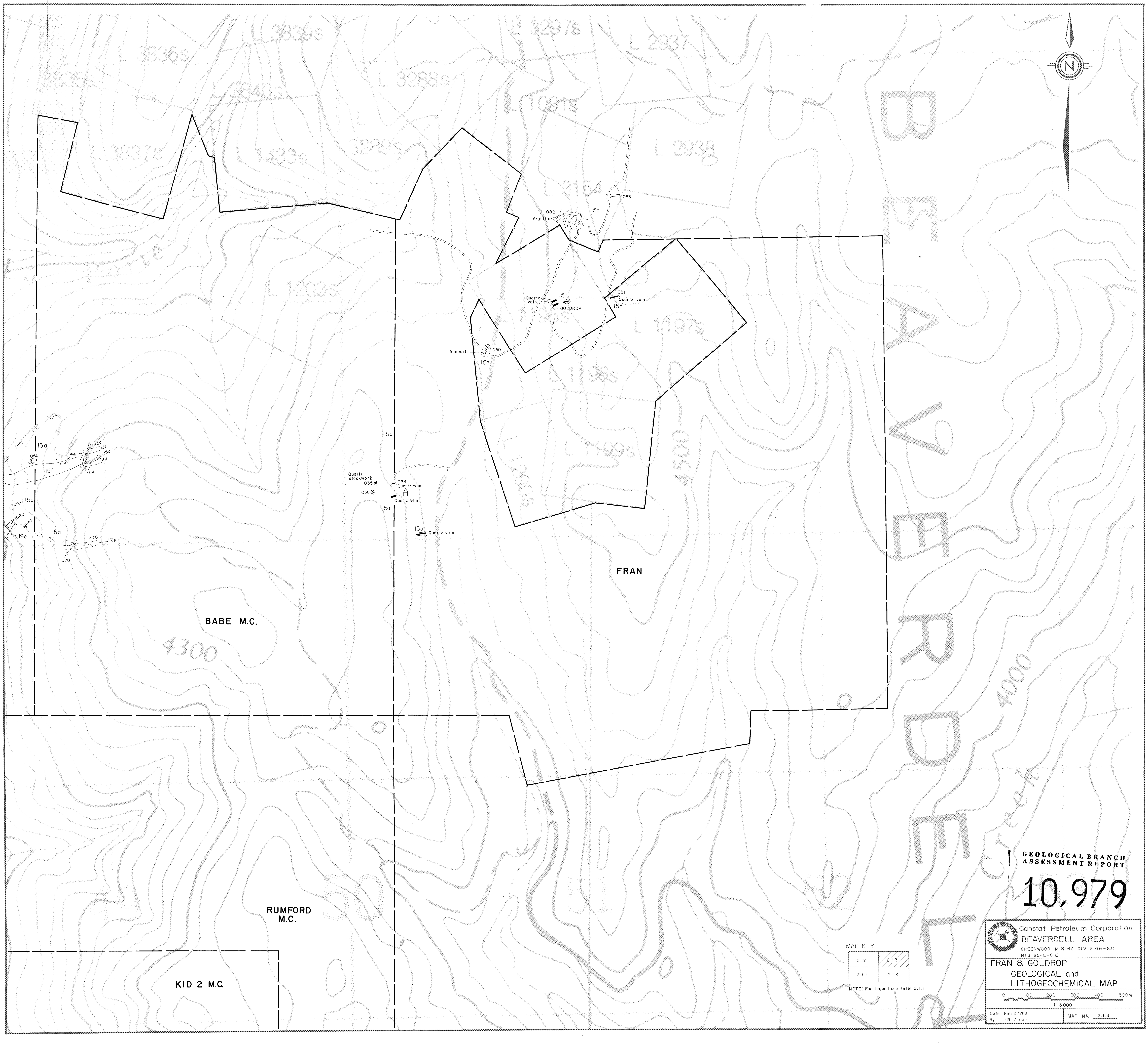
CLAIM	GEOLOGY	GEOPHYSICS	GEOCHEMISTRY	TOTAL
Wombat	$ 1,917.85	$ 750.77	$ 1,679.48	$ 4,348.10
May	1,598.21	625.64	1,399.56	3,623.41
Babe	1,917.84	750.78	1,679.48	4,348.10
Fran	2,130.94	834.19	1,866.08	4,831.21
	$ 7,564.84	$ 2,961.38	$ 6,624.60	$17,150.82

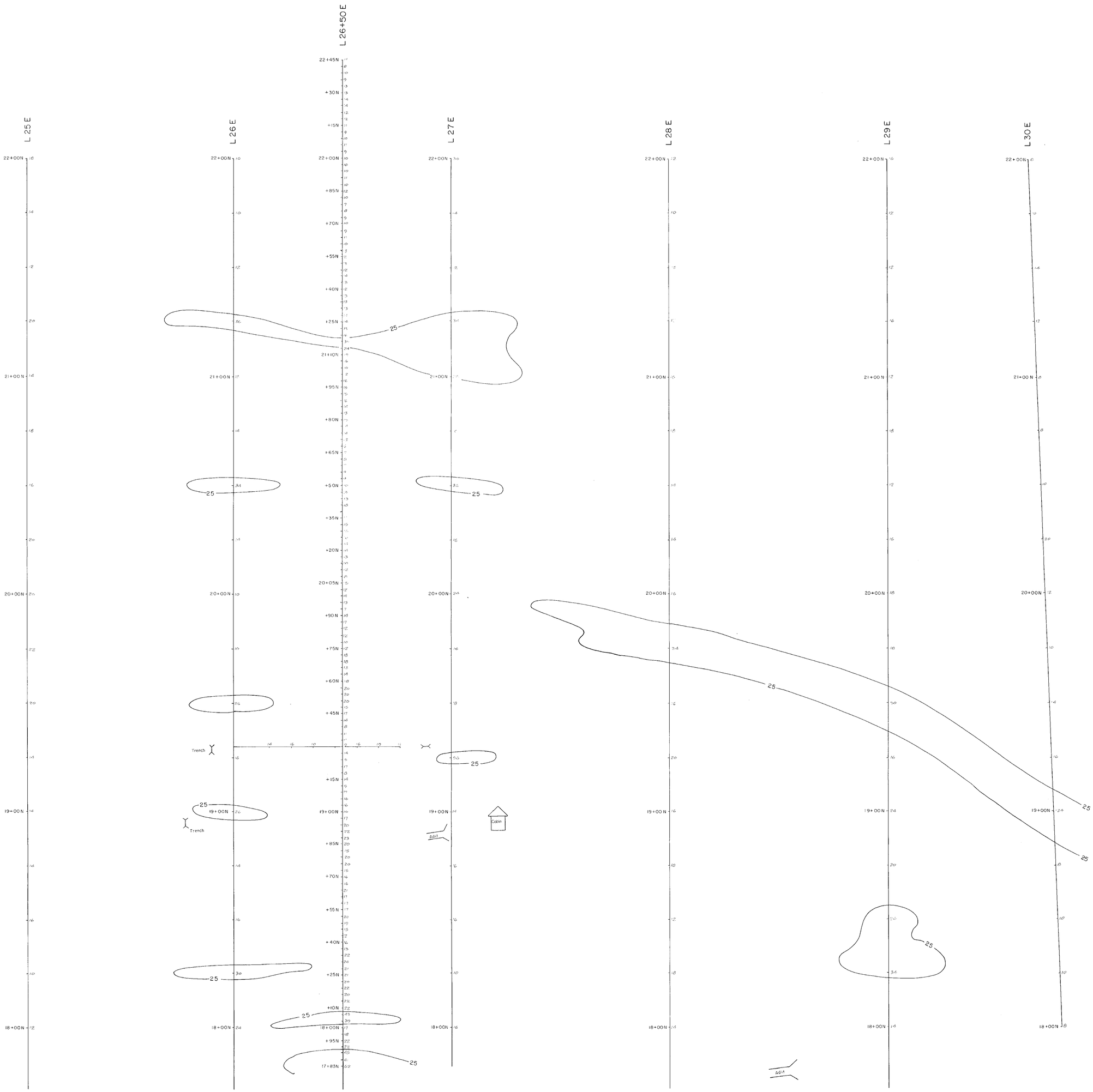
119°00'
49°25'
PROVINCIAL FOREST
CRANBERRY RIDGE
KETTLE PROVINCIAL FOREST
BEAVERDELL
WEST KETTLE
RIVER
CANADIAN PACIFIC
CURRY MTN
MOUNT WALLACE
GOAT PEAK
Beaverdell
Beaverdell Airfield
HIGHLAND BELL MINE
DEER 1
DEER 2
TICK 1
TICK 2
GROUSE 1
GROUSE 2
WOMBAT
BABE
FRAN
GOLD DROP C.G.
RUMFORD
MAY
KID 1
KID 2
LEGEND:
MINERALIZED SHOWING
Di. DIORITE-MICRODIORITE
AND. ANDESITE
Gr. Por. GRANITE PORPHYRY
//// ALASKITE PORPHYRY
GRANODIORITE, DIORITE
ADIT
HIGHLAND BELL PROPERTY
CANSTAT PROPERTY
GEOLOGICAL BRANCH
ASSESSMENT REPORT
10,979
Canstat Petroleum Corporation
BEAVERDELL PROPERTIES
GREENWOOD MINING DIVISION - B.C.
NTS 82-E-6 E
PROPERTY MAP SHOWING -
GEOLOGY & MINERALIZATION OF THE
HIGHLAND BELL MINE & FRAN PROPERTY.
500 0 500 1000 1500 2000 m
1: 25,000
Date SEPT. 1982
By J.R. / r.w.r.
FIG. No. 1.3



N
5000
4000
2500
CANADIAN
PACIFIC
KID 2
M.C.
MAY M.C.
KID I M.C.
L 2576
BM
2495
L 861s
L 1270s
15a
15f
16
LEGEND:
TERTIARY
MIOCENE (?)
21 Basalt; minor olivine basalt
OLIGOCENE (?)
20 CORYELL PLUTONIC ROCKS: syenite, granite, minor monzonite and shonkinite
EOCENE or OLIGOCENE
19 Andesite, trachyte, minor basalt; locally interbedded tuff and shale; 19a, andesite and trachyte flows and agglomerate; 19b, conglomerate, sandstone, shale, tuff; minor agglomerate and breccia; coal; 19c, andesite and trachyte; 19d, agglomerate and conglomerate; e, diorite / microdiorite.
PALEOCENE or EOCENE
18 Porphyritic granite and rhyolite
17 Conglomerate, sandstone, shale, tuff
CRETACEOUS (?)
16 VALHALLA PLUTONIC ROCKS: granite porphyry
15 NELSON PLUTONIC ROCKS: a, granodiorite; b, quartz diorite; c, diorite; d, granite; e, quartz monzonite; f, syenite, alaskite; g, monzonite
PERMIAN and/or TRIASSIC
7 ANARCHIST GROUP: greenstone, quartzite, greywacke, limestone; locally paragneiss
OUTCROP
GEOLOGICAL CONTACT
020 ROCK CHIP SAMPLE NUMBER
GOSSAN ZONE
QUARTZ VEIN or STOCKWORK
090 60 STRIKE & DIP of QUARTZ VEIN
MAP KEY
2.1.2
2.1.3
2.1.1
2.1.4
GEOLOGICAL BRANCH
ASSESSMENT REPORT
10,979
Canstat Petroleum Corporation
BEAVERDELL AREA
GREENWOOD MINING DIVISION - B.C.
NTS 82-E-6 E
MAY, KID I & 2 M.C.
GEOLOGICAL and
LITHOGEOCHEMICAL MAP
0 100 200 300 400 500 m
1:5 000
Date: Feb. 27/83
By J.R. / r.w.r.
MAP No. 2.1.1


N
Lake
L 1277s
3000
WOMBAT M.C.
L 3309
L 3307
Logan Ck
L 1272s
L 1271s
L 2854
L 3308
KETTLE
Dellwye
3500
L 2979
L 3638
L 1574s
L 3567
L 2578
SL 6
Abandoned
BM 2495
L 1275s
L 1274s
MAY M.C.
RUMFORD M.C.
SL 4
L 1276s
KID 2 M.C.
L 2577
GEOLOGICAL BRANCH
ASSESSMENT REPORT
10,979
Canstat Petroleum Corporation
BEAVERDELL AREA
GREENWOOD MINING DIVISION-B.C.
NTS 82-E-6 E
WOMBAT M.C.
GEOLOGICAL and
LITHOGEOCHEMICAL MAP
0 100 200 300 400 500m
1:5000
Date: Feb. 27/83
By J.R. / r.w.r.
MAP Nº. 2.1.2
MAP KEY
2.1.2 2.1.3
2.1.1 2.1.4
NOTE: For legend see sheet 2.1.1


N
L 3839s
L 3836s
L 3297s
L 2937
L 3288s
L 3840s
L 1091s
L 3837s
L 1433s
L 3289s
L 2938
L 3154
083
082
Argillite
15a
L 1203s
Quartz vein
15a
GOLDROP
081
Quartz vein
15a
L 1197s
Andesite
080
15a
L 1196s
4500
L 1199s
15a
15a
065
15f
19e
15a
15f
Quartz stockwork
035
034
Quartz vein
036
Quartz vein
15a
15a
Quartz vein
15a
060
061
19e
15a
076
19e
078
FRAN
BABE M.C.
4300
4000
RUMFORD M.C.
KID 2 M.C.
MAP KEY
2.1.2
2.1.3
2.1.1
2.1.4
NOTE: For legend see sheet 2.1.1
GEOLOGICAL BRANCH
ASSESSMENT REPORT
10,979
Canstat Petroleum Corporation
BEAVERDELL AREA
GREENWOOD MINING DIVISION - B.C.
NTS 82-E-6 E
FRAN & GOLDROP
GEOLOGICAL and
LITHOGEOCHEMICAL MAP
0 100 200 300 400 500m
1:5000
Date: Feb. 27/83
By J.R. / r.w.r.
MAP №. 2.1.3



GEOLOGICAL BRANCH
ASSESSMENT REPORT

10,979

LEGEND
25 = Contour of 25 ppm Copper value

Canstat Petroleum Corporation
FRAN GRID
GREENWOOD MINING DIVISION - B.C.
NTS 82-E-6 E

GEOCHEMICAL SURVEY
COPPER RESULTS in p.p.m.

0 50 m 100 m 150 m
1 : 1,500

Date : Feb. 19/83
By J.R. / r.w.r

MAP Nº 3.1.2.1

GEOLOGICAL BRANCH
ASSESSMENT REPORT

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L 25 E

L 26 E

L 26+50 E

L 27 E

L 28 E

L 29 E

L 30 E

Trench

Trench

Adit

Cabin

LEGEND:

≥ 225 ppm. = Anomalous Zinc value

Canstat Petroleum Corporation

FRAN GRID

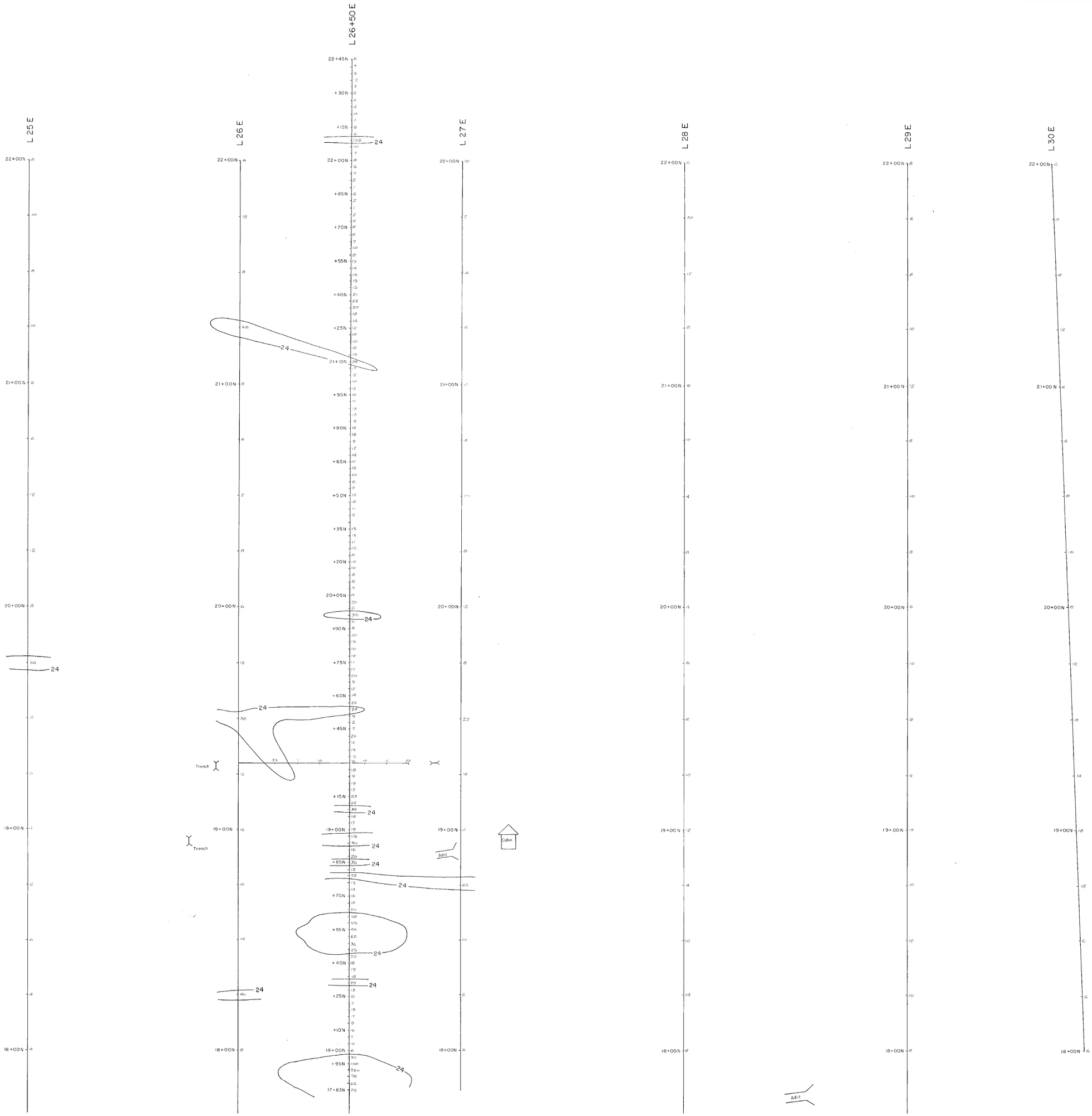
GREENWOOD MINING DIVISION - B.C.
NTS 82-E-6 E

GEOCHEMICAL SURVEY
ZINC RESULTS in p.p.m.

0 50 m 100 m 150 m
1 : 1,500

Date : Feb. 19 /83
By J.R. / r.w.r

MAP Nº 3.1.2.3



GEOLOGICAL BRANCH
ASSESSMENT REPORT

10,979

LEGEND:

≥24 p.p.m. = Anomalous Lead value

Canstat Petroleum Corporation

FRAN GRID

GREENWOOD MINING DIVISION - B.C.
NTS 82-E-6 E

GEOCHEMICAL SURVEY
LEAD RESULTS in p.p.m.

0 50 m 100 m 150 m
1" = 1,500

Date: Feb. 19/83
By: J.R. / r.w.r

MAP No. 3.1.2.2

L 25 E

L 26 E

L 26+50 E

L 27 E

L 28 E

L 29 E

L 30 E

22+00N

21+00N

20+00N

19+00N

18+00N

22+45N

+30N

+15N

+85N

+70N

+55N

+40N

+25N

21+10N

+95N

+80N

+65N

+50N

+35N

+20N

20+05N

+90N

+75N

+60N

+45N

+15N

+70N

+55N

+40N

+25N

+10N

+95N

17+85N

0.3

Trench

Trench

Adit

Cabin

Adit

LEGEND:

≥ 0.3 ppm = Anomalous Silver value

GEOLOGICAL BRANCH
ASSESSMENT REPORT

10,979

Canstat Petroleum Corporation

FRAN GRID

GREENWOOD MINING DIVISION - B.C.
NTS 82-E-6 E

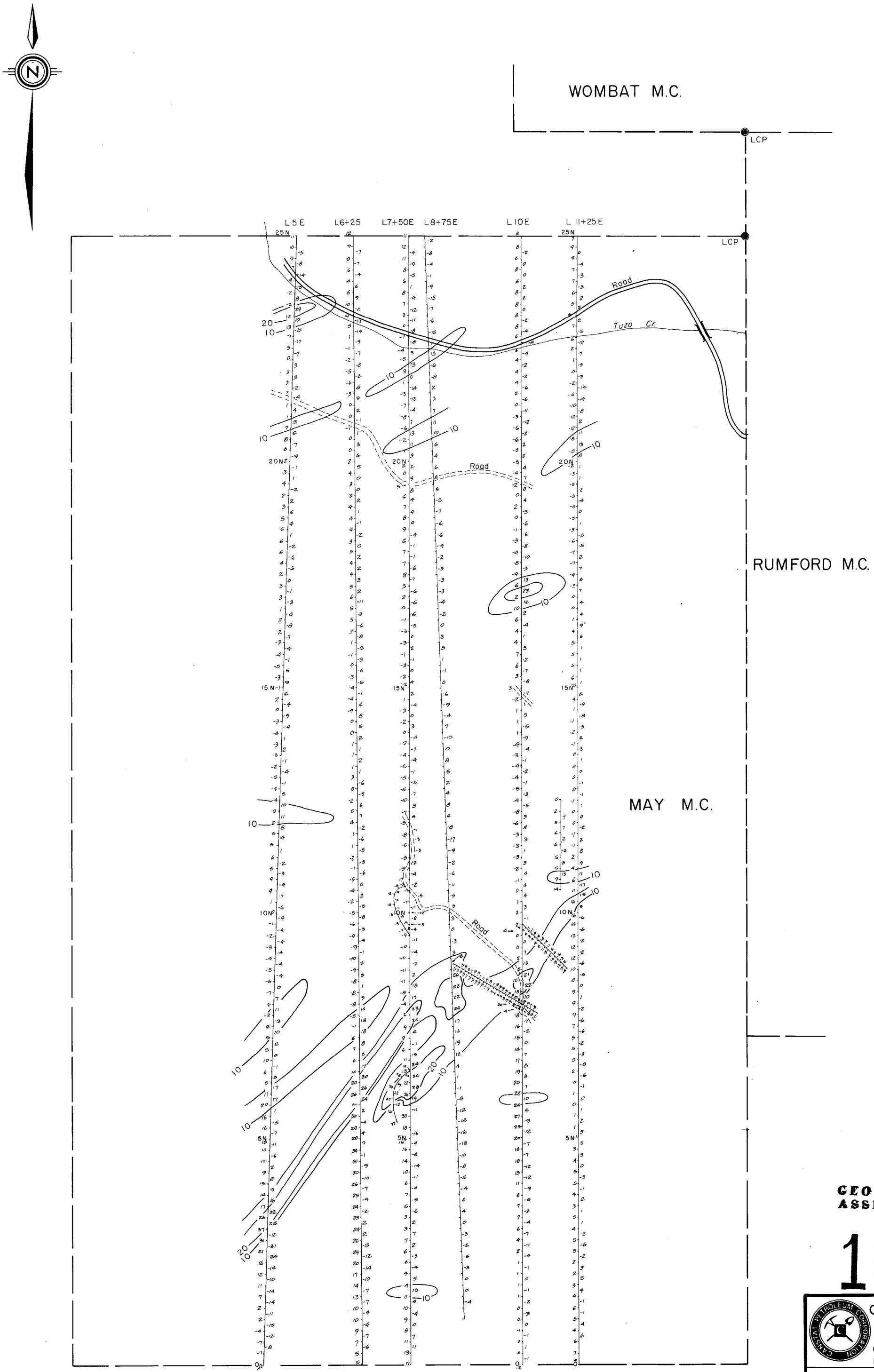
GEOCHEMICAL SURVEY
SILVER RESULTS in p.p.m.

0 50 m 100 m 150 m

1 : 1,500

Date: Feb. 19 /83
By J.R. / r.w.r

MAP Nº. 3.1.2.4



LEGEND:

INPHASE | FRASER FILTER RESULT (%)
2 | 7
10 | 13
18 | 21
20 | 10
18 |

CONTOUR INTERVAL 10 & 20 %

INSTRUMENT: GEONICS EM-16

GEOLOGICAL BRANCH ASSESSMENT REPORT

10,979

Canstat Petroleum Corporation

MAY MINERAL CLAIM

GREENWOOD MINING DIVISION - B.C.

NTS 82-E-6 E

VLF-EM SURVEY

CONTOURS OF FRASER FILTER RESULTS (%)

0 100 200 300 400 500

1:5,000

Date: ~~Dec. 13/81~~ Rev. Feb. 13/83

By J.R. /r.w.r.

MAP Nº 4.1.2.1

WOMBAT M.C.

BABE M.C.

FRAN M.C.

MAY M.C.

RUMFORD M.C.

SHAFT

LAPORTE CREEK

WEST KETTLE RIVER

HWY. 33

GULLEY

CLIFF

GULLEY

CLIFF

Building

LCP

VLF-EM
DETAIL LINES
(1:2000)

SYMBOLS

- Road
- Adit
- Test Pit or Trench
- Located Claim Post
- Approximate Claim Line
- Stream

Inphase Reading / Fraser Filter Result (%)

Contour interval = 10, 20 & 30 %

Instrument : Geonics EM-16

GEOLOGICAL BRANCH
ASSESSMENT REPORT

10,979

Canstat Petroleum Corporation

RUMFORD, WOMBAT, BABE & FRAN M.C.

GREENWOOD MINING DIVISION - B.C.
NTS 82-E-6 E

VLF-EM SURVEY

CONTOURS OF FRASER FILTER RESULTS (%)

0 100 200 300 400 500

1 : 5,000

Date : Dec. 19/81 rev. Mar. 82
By A.G.T./rwr

MAP Nº. 4.1.2.2