

85-771-13960

8/86

PROSPECTING AND GEOLGOY REPORT

KNOLL CLAIMS

OMINECA MINING DISTRICT

HAZELTON MAP AREA 93M/6 127° 08' 55⁰ 15'

AUGUST, 1985

Owner, operator, author

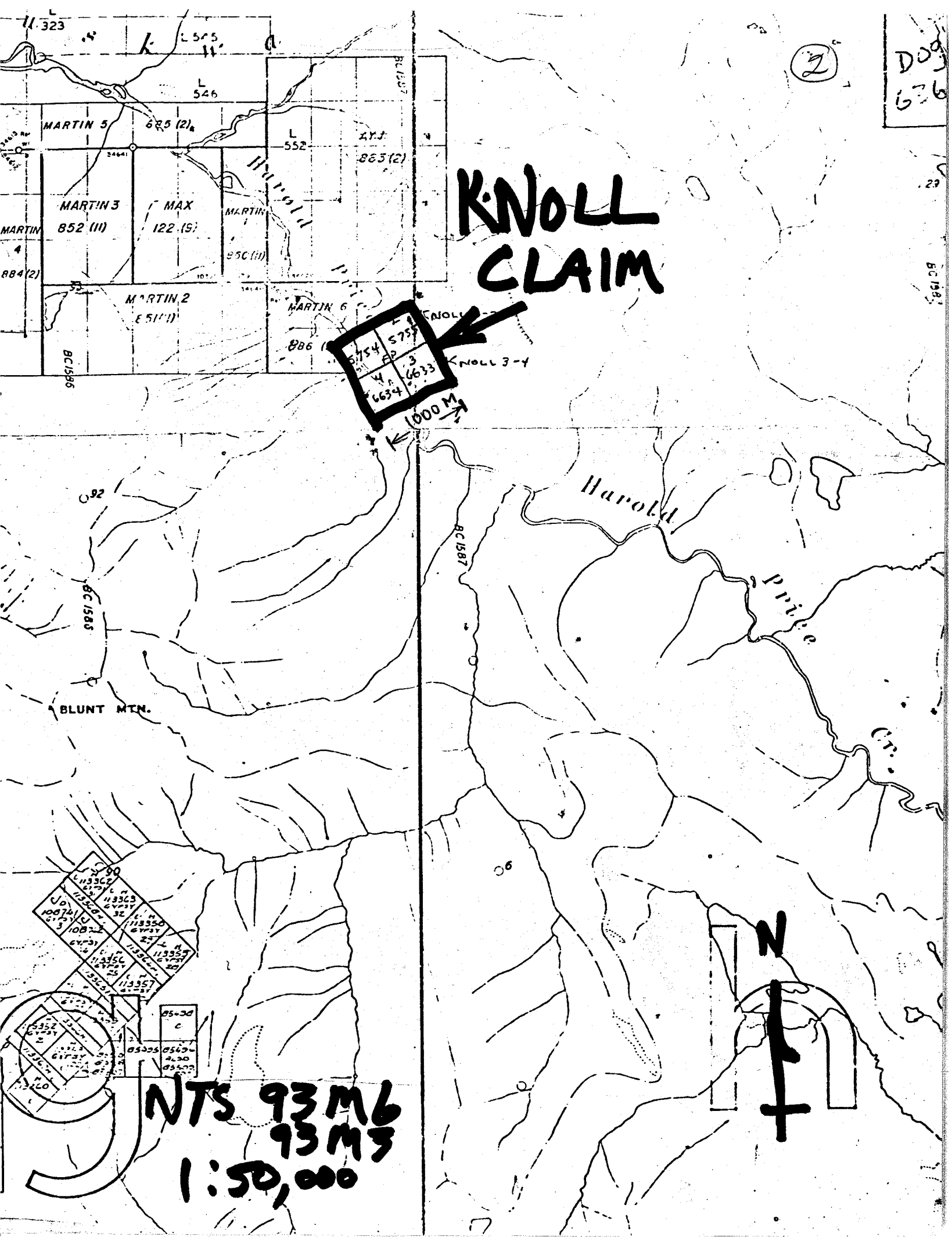
Dan Ethier
Box 211
New Hazelton, B.C.
VOJ 2J0

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,960

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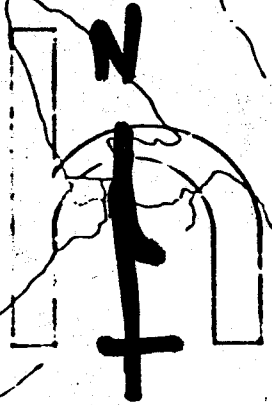
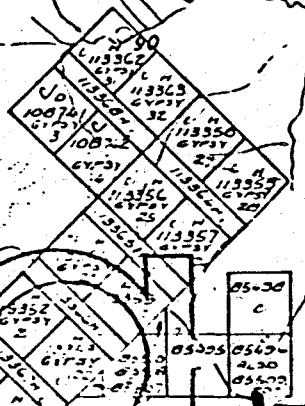
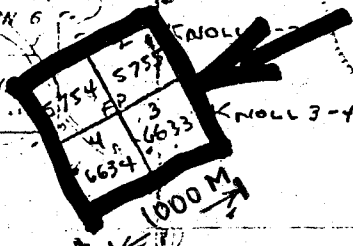
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KNOLL CLAIM



LOCATION

The Knoll Claim is located in the Hazelton area of the Omineca Mining Division in the Northwest of British Columbia NTS map 93M/6 titled Suskwa River. It is 22 miles (35km) east of Old Hazelton by air and 28 miles (48km) by road. The Knoll is situated along the Harold Price Creek between Netazul Mt. and Blunt Mt.

ACCESS

Access from New Hazelton is east along highway #16 for 8 miles (13km) to the Suskwa River Forestry Road. Travel ENE along the Forestry Road for 10 miles (17km). The junction heads east on this back road for approximately 6 miles (10km) this road is limited to a 4x4 with standard pick-up clearance and it will take you to the junction of the Suskwa River and the Harold Price Creek. From New Hazelton to the river junction takes approximately 2 hrs. travel time. From this point there is a 2 mile walk eastward along a good trail. Allow three hours travel time.

PHYSIOGRAPHY

The Knoll Claim is four units in a square along the Harold Price Creek. A 200 foot high hill rises abruptly from the valley floor. An intrusion along a fault zone.

Blunt Mt. is to the south and Netazul Mt. is north. There is a creek on the west border. There is an exposed cliff face but generally the knoll is covered with overburden and forest of pine, spruce and hemlock; ample timber available as well as water.

PROPERTY HISTORY

First discovered in May 1983 the property was staked in November '83 when two units were acquired.

Geochemical reports were favourable towards Pb Zn Ag. On August 12, 1984 units # 3 and 4 were staked. The Knoll claim is owned and operated by D. Ethier.

WORK HISTORY

After staking and establishing a trail the following prospecting trips occurred:

August 20, 1984. Traveled along Netazul Mt. foothills at 2,000'-2,500 feet, seeking the extent of volcanic intrusions and possible mineral zones related to the Knoll property.

Reconnaissance did not occur on the specific units but fell within a 2 mile radius of the property. Bands of black calcite and altered rocks were common.

July 1st, 1985. Geologist T.A. Richards and prospectors B..Holden and D..Ethier evaluate Knoll property, 12 samples taken.

July 7, 1985. Samples sent for analysis.

July 8, 1985. Concentrating on west side, discovery of shear zone between intrusion and shale three feet wide, heavy pyrite zone in carbonates.

July 14, 1985. Ives Bernier and myself prospect with metal detector especially on known veinlets determining length.

bn
6411-6418
⑥

REGIONAL GEOLOGY

KNOLL CLAIMS



diarite
MARTIN 5
MARTIN 852 (II)

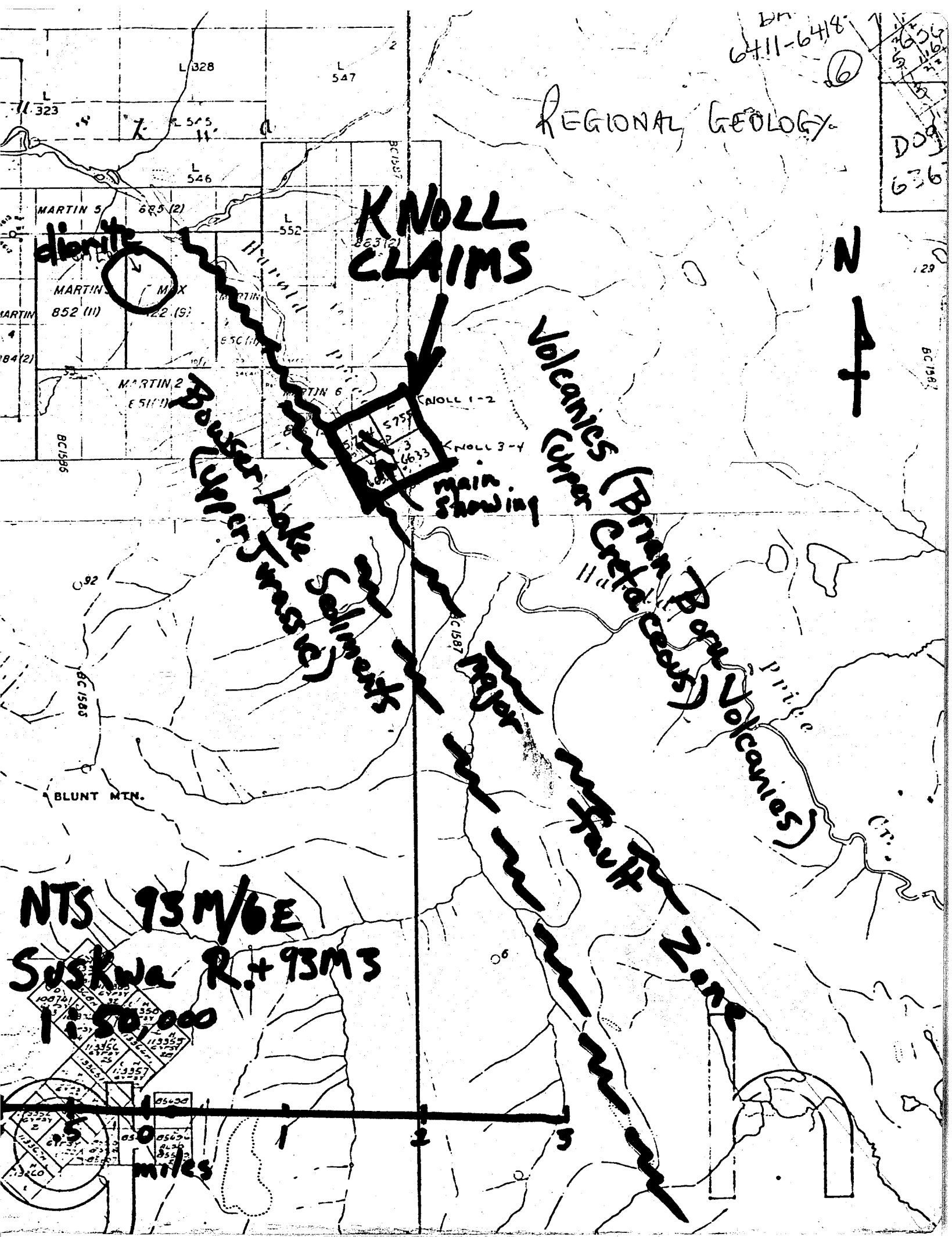
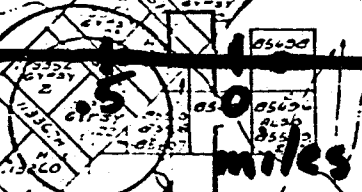
Rocky Mt. Front
St. Lawrence
Salmon
Traverse
River

KNOLL 1-2
KNOLL 3-4
main showing

Volcanics (Brian Point)
Volcanics (Copper Hat)
Volcanics (Sawtooth)

BLUNT MTN.

NTS 93M/6E
Suskwa R. + 93M3
1:50,000



GEOLOGY

REGIONAL SETTING OF THE CLAIMS

The Knoll Claims are located on the north shore of Harold Price Creek, 3 km. upstream from its influence with the Suskwa River.

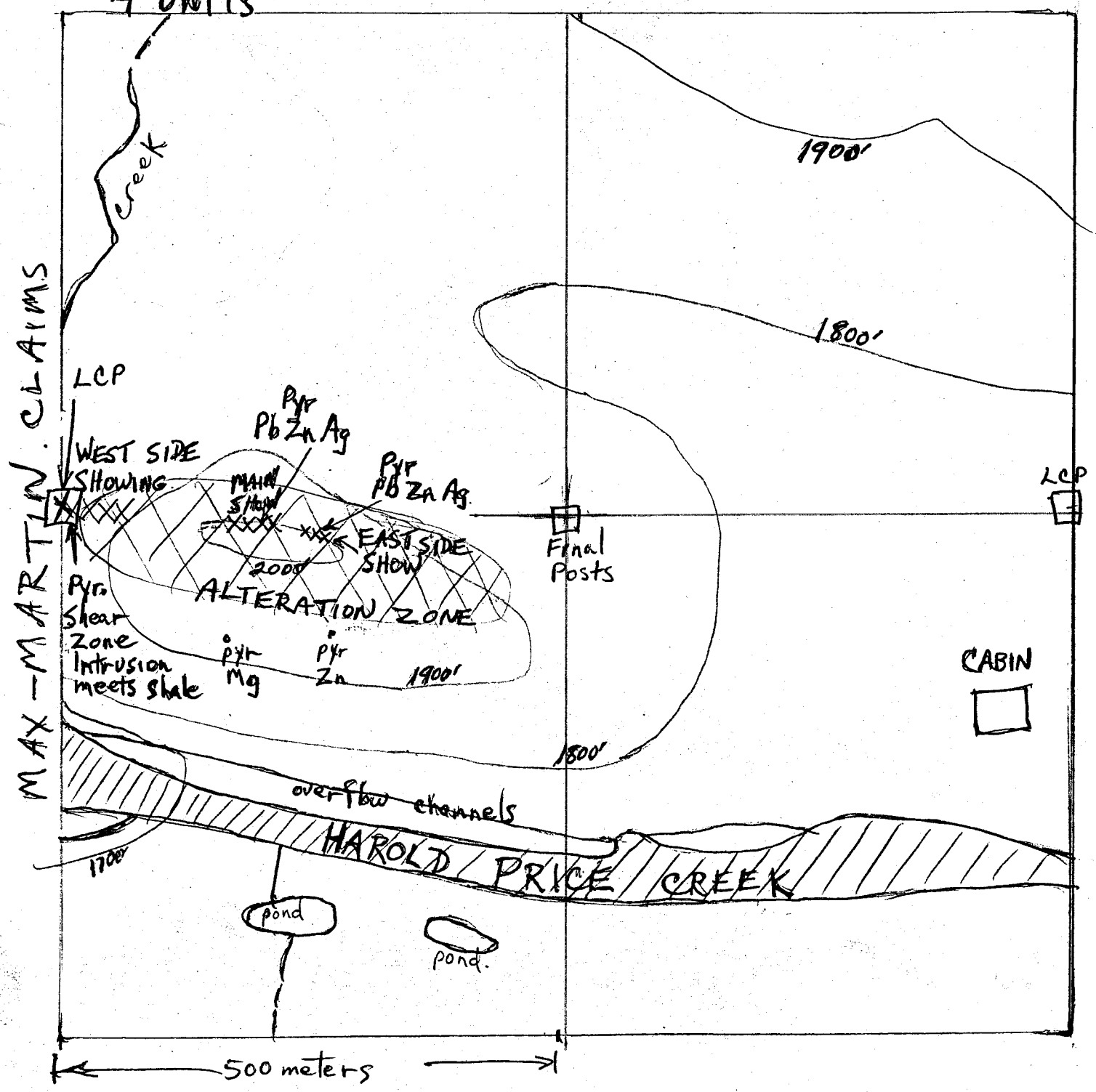
The claims are located at the boundary between the Upper Jurassic sediments of the Bowser Lake Group and Upper Cretaceous Volcanics of the Brian Boru (kasalka) Volcanics. The boundary separating these two units is tectonic in nature, and represents a major north westerly trending fault now marked by the path of Lower Harold Price Creek.

The Brian Boru Volcanics of the Upper Suskwa River and Harold Price Creek were deposited in a down-drop volcanic basin (caldera) and cover some 300 square kilometers area. They are a suite of massive bedded feldspar porphyry, hornblende-feldspar porphyry, dacite and rhyolite flows, breccias, lapilli tuff and coeval high-level intrusive bodies. The volcanics are fault bounded to the north, against Netalzul Mountain and to the south, against Blunt Mountain. Both these mountain blocks are underlain by Upper Jurassic sediments of the Bowser Lake Group and by granodioritic stocks of the Bulkley Intrusions. The Bulkley Intrusions, at these localities, are unroofed feeders for the Brian Boru Volcanics. The northwest boundary of the caldera structure is obscured by extensive cover in the Upper Suskwa River valley, but is likely fault controlled. The southeastern boundary of the volcanic basin appears open, with the volcanic rocks resting with apparent conformity on Lower Cretaceous Skeena sedimentary rocks.

GEOLOGY OF THE CLAIMS

The claims are underlain by a complex of andesitic to rhyolitic rocks that occupy a low, prominent knob immediately north of Harold Price Creek. Rhyolitic rocks comprise fine-grained, light coloured felsite, massive highly fractured quartz and feldspar porphyry and flow-banded units. Locally vertical oriented flow-banding suggests the units underlying the hill comprise an intrusive complex of high-level characteristics.

KNOLL CLAIM
AVG 85.
D. ETHIER.
4 UNITS



MAX - MARTIN CLAIMS

LCP

WEST SIDE SHOWING

Pyr Pb Zn Ag

MAIN SHOWING

Pyr Pb Zn Ag

EAST SIDE SHOWING

ALTERATION ZONE

Pyro Shear Zone Intrusion meets shale

Pyr Mg

Pyr Zn

1900'

Final Posts

CABIN

overflow channels

HAROLD PRICE CREEK

pond

pond.

500 meters

LCP

1700'

1800'

1900'

1800'

MINERALIZATION

The hill or knoll ha been caused by a volcanic intrusion in the Bowser Lake sediments. The rocks are altered with iron carbonates near the contact with the shale; iron sulphates giving a yellow stain to the pyrite zones in the main showing which is occuring at the top of the knoll. Limonite of course is strongly present.

Disseminated pyrite occurs throughout the rhyolite units. Galena and Sphalerite occurs as disseminated mineral and fracture coatings. Breccia fillings of an unidentified grey, fine-grained sulfide.

Main Showing

On top of the hill is a cliff face with talus slope beneath. The rock face has a wide band of pyrite along one side. This band of pyrite is set in a green sandy like rock which is hard, fist sized pockets have been eroded out by water, ~~and a yellow~~ Galena and Sphalerite are present in small amounts; Maganeses is more noticeable on the western part of the face.

East Side Showing

Of the main shows small veins 1" - 2" wide run along the hillside. Rusty corroded veinlets mainly of pyrite with galena and sphalerite getting stronger. Occasional pockets of sulfides are seen at surface. These sulfides assay at better than 2oz. silver.

West Side Showing

Of the main show a recent discovery uncovered a three foot wide vein or shear zone at the contact of the shale and intrusion. This carbonate zone has heavy concentrates of pyrite and pyrrotite.

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VANGEOCHEM LAB LIMITED

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NORTH VANCOUVER, B.C. V7P 2S3
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE
1630 PANDORA ST.
VANCOUVER, B.C. V5L 1L6
(604) 251-5656

REPORT NUMBER: 85-75-002

JOB NUMBER: 85154

MR. TOM RICHARDS

PAGE 1 OF 1

SAMPLE #	Ag oz/st	Au oz/st
KNOLL - 1	2.32	<.005
KNOLL - 2	.62	<.005



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PAGE 1 OF 2

SAMPLE #	Au oz/st	Au ppb
DE 1R	--	5
DE 2R	--	<5

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 BRANCH OFFICE: 1630 PANDORA ST. VANCOUVER B.C. V5L 1L6 PH: (604) 251-5656

ICAP GEOCHEMICAL ANALYSIS

A .5 GRAM SAMPLE IS DIGESTED WITH 5 ML OF 3:1:3 HCL TO HNO3 TO H2O AT 95 DEG. C FOR 90 MINUTES AND IS DILUTED TO 10 ML WITH WATER.
 THIS LEACH IS PARTIAL FOR SN, MN, FE, CA, P, CR, MG, BA, PD, AL, NA, K, W, PT AND SR. AU AND PD DETECTION IS 3 PPM.
 IS= INSUFFICIENT SAMPLE, ND= NOT DETECTED, -- NOT ANALYZED

COMPANY:
 ATTENTION:
 PROJECT:

REPORT#: 85-75-002
 JOB#:
 INVOICE#:

DATE RECEIVED: 85/07/06
 DATE COMPLETED: 85/07/10
 COPY SENT TO:

PAGE 1 OF 1

W. Reims

SAMPLE NAME	AG PPM	AL %	AS PPM	AU PPM	BA PPM	BI PPM	CA %	CD PPM	CO PPM	CR PPM	CU PPM	FE %	K %	MG %	MN PPM	MO PPM	NA %	NI PPM	P %	PB PPM	PD PPM	PT PPM	SB PPM	SN PPM	SR PPM	U PPM	W PPM	ZN PPM
KNOLL 1	85.5	.29	939	ND	54	9	.22	114.0	1	57	145	4.38	.14	.07	2262	5	.01	466	.01	21962	ND	ND	9855	7	11	8	ND	6532
KNOLL 2	25.2	.41	30707	ND	89	46	.04	36.9	19	27	66	5.55	.15	.03	1193	6	.01	8	.01	3238	ND	ND	873	2	8	21	ND	3812

Suskwa River

VANGEOCHEM LAB LIMITED

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ICAP GEOCHEMICAL ANALYSIS

A .5 GRAM SAMPLE IS DIGESTED WITH 5 ML OF 3:1:3 HCL TO HNO3 TO H2O AT 95 DEG. C FOR 90 MINUTES AND IS DILUTED TO 10 ML WITH WATER.
 THIS LEACH IS PARTIAL FOR SN, MN, FE, CA, P, CR, MG, BA, PD, AL, NA, K, W, PT AND SR. AU AND PD DETECTION IS 3 PPM.
 IS= INSUFFICIENT SAMPLE, ND= NOT DETECTED, -- NOT ANALYZED

COMPANY:
 ATTENTION:
 PROJECT:

REPORT#: 85-75-003 A
 JOB#:
 INVOICE#:

DATE RECEIVED: 85/07/15
 DATE COMPLETED: 85/07/17
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ANALYST *W. Reims*

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SAMPLE NAME	AG PPM	AL %	AS PPM	AU PPM	BA PPM	BI PPM	CA %	CD PPM	CO PPM	CR PPM	CU PPM	FE %	K %	MG %	MN PPM	MO PPM	NA %	NI PPM	P %	PB PPM	PD PPM	PT PPM	SB PPM	SN PPM	SR PPM	U PPM	W PPM	ZN PPM
DE-1R	.2	1.50	38	ND	57	3	.55	.1	7	51	44	2.60	.10	.62	767	1	.09	7	.05	7	ND	ND	ND	ND	16	ND	ND	49
DE-2R	4.0	.30	100	ND	69	3	.02	6.5	13	66	160	3.04	.07	.04	39	9	.01	8	.01	255	ND	ND	71	ND	7	ND	ND	1385

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VANGEOCHEM LAB LIMITED
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PREPARED FOR: DAN ETHIER

NOTES: nd = none detected
: — = not analysed
: is = insufficient sample

REPORT NUMBER: 84-01-052

JOB NUMBER: 84239

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SAMPLE #	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Mn ppm	As ppm
DE #1	4	13	5100	3050	12.6	11	3400	50
DE #2	4	11	235	112	2.1	10	1670	80
DE #3	7	940	29	38	2.2	44	400	2
DETECTION LIMIT	1	1	2	1	0.1	1	1	2

VANGEOCHEM LAB LIMITED
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North Vancouver B.C. V7P 2S3
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PREPARED FOR: MR. DAN ETHIER

NOTES: nd = none detected
: — = not analysed
: is = insufficient sample

REPORT NUMBER: 84-01-082

JOB NUMBER: 84456

PAGE 1 OF 1

SAMPLE #	Au ppb
DE #1	nd
DE #2	nd
DE #3	35
DETECTION LIMIT	5

INTERPRETATION

The volcanic intrusion into the Bowser Lake sediments in this area commonly host Pb Zn Ag mineralization. The Max claim on Blunt Mt. is one and a half miles to the northwest of the Knoll property and the Netal claim on Netazul Mt. is five miles to the northeast. Both Max and Netal properties are rich in Ag content. There is simialarity between the Max and Knoll properties in rock types and mineralization of carbonate zones. I suspect they are of the same system. Due to overburden exploration is becoming more difficult, geochemical soil analysis and/or a small portable drill are considered for the future.

AUTHORS RESUME

D. Ethier

I began prospecting in 1979 under Dr. Tom Richards tutelage and have continued with an active interest since. The most concentrated form of formal education in the subject was Tom Richards Geology Course at the Northwest Community College in Hazelton in early 1984.

I have worked as a prospector for companies on several occasions but most of my work has been independant.

Sir

I'll be gone for 6 months out of the country -

If there is any problem could it wait until Spring?

If not please contact Dr. T. A. Richards -

Thanks.

D. Ethier

Appendix

I spent one day on the claims on July 1, 1985.

I wrote the section on regional setting of the claims and geology of the claims.

I received my PhD from the University fo B.C. in 1971, and am a Fellow of the Geologic Association of Canada.

T.A. Richards

ITEMIZED COST STATEMENT

Total number of hours prospecting - 68 hrs. @ \$15/hr. x 68 hrs.	\$1,020.00
Geologist - Tom Richards	300.00
Geochemical Analysis	210.00
Transportation	200.00
Food	200.00
Report Preparation	100.00
TOTAL	<u>\$2,030.00</u>