

84-#582 - 12655

GEOLoGICAL, GEOCHEMICAL, GEOPHYSICAL
ASSESSMENT REPORT
BLACKROCK CLAIMS
NELSON MINING DIVISION

LAT: 49° 08' Long: 117° 12'

OWNER: GREENWICH RESOURCES, INC.

OPERATOR: GREENWICH RESOURCES, INC.

CONSULTANT CONTRACTOR: ROBERTSON RESEARCH CANADA LIMITED

BY

DAVID S. EVANS, Ph.D., P. Geol.,

Consultant to

ROBERTSON RESEARCH CANADA LIMITED

GEOLOGICAL BRANCH
ASSESSMENT REPORT

12 655

ROBERTSON
RESEARCH

JULY 1984

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1. SUMMARY

Twelve rock samples from outcrop, old trenches and float and 103 soil samples have been collected from the Blackrock Claim Group.

Significant Zn, Ag, and Hg values have been identified in outcrop and several old trenches. Sulphide mineralization is characterized as discontinuous replacement bandings in Reeves Limestone or, as fracture fillings in a indurated buff dolomite. Pyrite and sphalerite mineralization has been observed in outcrop over a length of 15 metres. Weak Zn and Ag soil anomalies are present.

Assay results and geological observations made during the short reconnaissance exploration program on the Blackrock claims indicate the promise for silver-bearing massive sulphide replacement deposits and veins.

Further mapping, prospecting and geochemical sampling is recommended.

2. INTRODUCTION

2.1 Location and Access

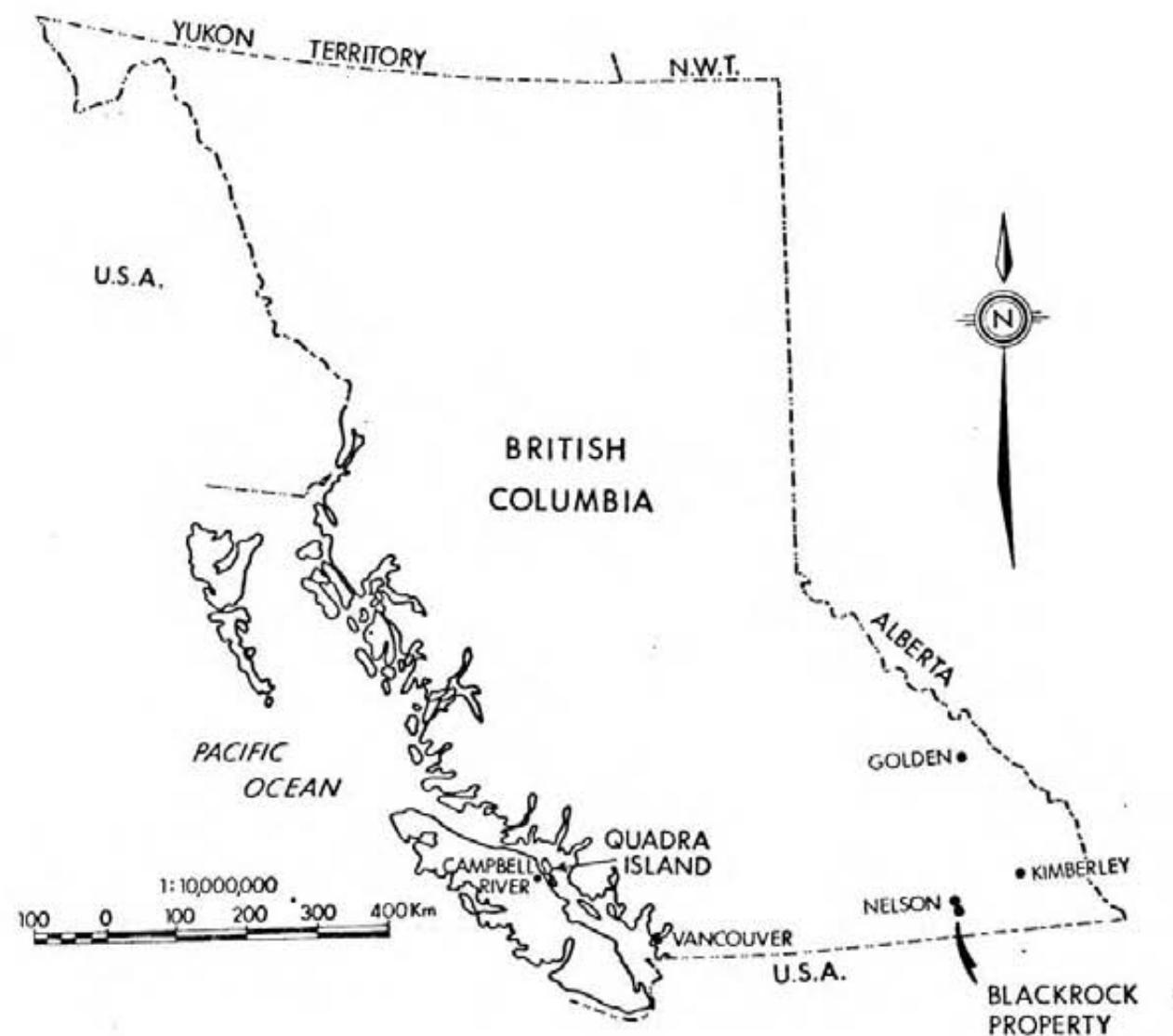
The Blackrock Claim area is located in the Nelson Mining Division of southeastern British Columbia, approximately 37km south-southeast of the City of Nelson (Fig. 1).

The property is easily accessible by both the old Emerald Mine road and the Sheep Creek Forestry Road leading from Provincial Highway #6/3 south south of Salmo B.C.

TABLE 1

Mineral Claims

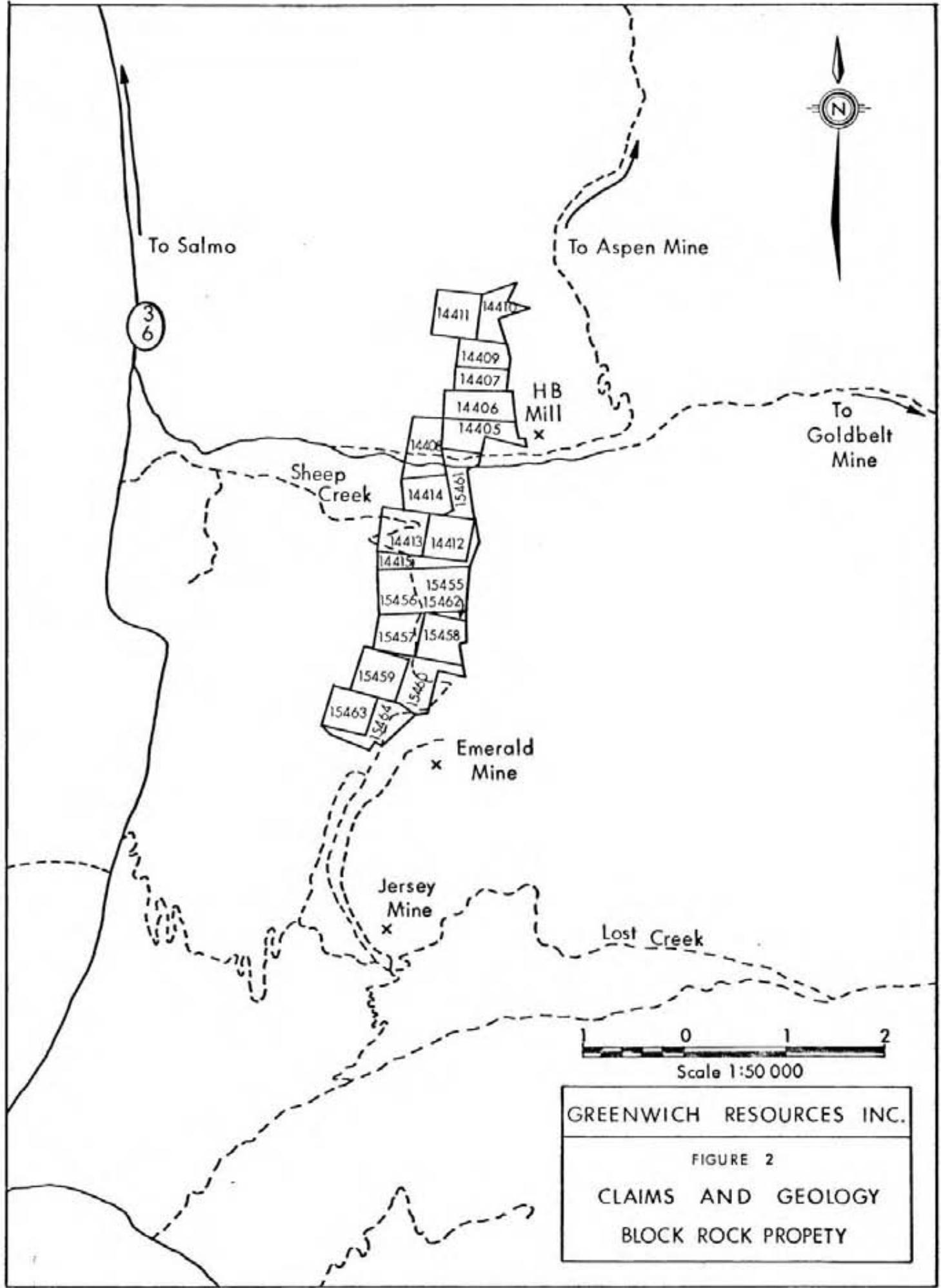
<u>Name</u>	<u>Lot No.</u>	<u>Record No.</u>	<u>Month Of Record</u>	<u>Owner Of Record</u>
Blackrock No. 11 Fr.	14405	3183	June	Greenwich Resources, Inc.
Blackrock No. 12 Fr.	14406	3184	June	Greenwich Resources, Inc.
Blackrock No. 13 Fr.	14407	3185	June	Greenwich Resources, Inc.
Blackrock No. 14 Fr.	14408	3186	June	Greenwich Resources, Inc.
Blackrock No. 15 Fr.	14409	3187	June	Greenwich Resources, Inc.
Blackrock No. 16 Fr.	14410	3188	June	Greenwich Resources, Inc.
Blackrock No. 17 Fr.	14411	3189	June	Greewnich Resources, Inc.
Blackrock No. 5 Fr.	14412	3190	June	Greenwich Resources, Inc.
Blackrock No. 6 Fr.	14413	3191	June	Greenwich Resources, Inc.
Blackrock No. 7 Fr.	14414	3192	June	Greenwich Resources, Inc.
Blackrock Fraction	14415	3193	June	Greenwich Resources, Inc.
Blackrock No. 1	15455	3194	June	Greenwich Resources, Inc.
Blackrock No. 2	15456	3195	June	Greenwich Resources, Inc.
Blackrock No. 3	15457	3196	June	Greenwich Resources, Inc.
Blackrock No. 4	15458	3197	June	Greenwich Resources, Inc.
Blackrock No. 19 Fr.	15462	3197	June	Greenwich Resources, Inc.
Blackrock No. 8	15459	3198	June	Greenwich Resources, Inc.
Blackrock No. 9 Fr.	15460	3199	June	Greenwich Resources, Inc.
Blackrock No. 18 Fr.	15461	3200	June	Greenwich Resources, Inc.
Blackrock No. 20	15463	3201	June	Greenwich Resources, Inc.
Blackrock No. 21 Fr.	15464	3202	June	Greenwich Resources, Inc.



GREENWICH RESOURCES INC.

FIGURE 1

PROPERTY INDEX MAP



2.2 Phsyiography and Climate

A reconnaissance grid system (Figures 3 and 4) was located on a north facing slope encompassing a burned over area and now covered with thick patches of scrub brush, cedar, spruce and alder. The terrain ranges from flat to rugged. Outcrop exposure is poor.

The greater area of the claim block extends northward over a gradual to moderate northeast and southwest facing slopes thickly forested with scrub brush, spruce and alder.

The climate of the west Kootenay region is characterized by warm summers from May to September, a cool and damp fall and spring, and relatively mild winters.

3. GEOLOGY

3.1 Regional Geology

The Blackrock Claims (Fig. 2) are located within the Nelson (West half) Map Area (GSC Map 1090 A, Little 1960; GSC Map 1145A, Little 1964). Rock units are described by H.W. Little (GSC Memoir 308, 1960).

The Blackrock Claims are underlain by rock units of the Laib Formation which includes a variety of sedimentary rock types including phyllites, argillites, quartzites, limestones and schists.

Mineral potential of the Blackrock Claims is related to replacement silver-bearing base metal mineralization found in the Reeves Limestone or as fracture fillings and remobilizations.

3.2 Local Geology

The Blackrock No. 2 (lot 15456) and No. 3 (lot 15457) claims are underlain by moderate to steeply dipping limestone units. The limestone may be crystalline (marblized) and intermixed or accompanied by lenses of black to dark grey banded schistose argillite.

Numerous old trenches and an area of stripping near the baseline at Line 0+00 (Figures 3 and 4) have exposed a zone of Fe, Zn and Pb sulphide mineralization. The mineralization appears to be localized at the contact between a limestones unit and massive buff-colored dolomite dipping to the east and striking 010° - 015° N.E.

The argillite unit is characterized as a partly schistose or massive calcareous banded unit accompanied by varying percentages of disseminated pyrite along laminae and fractures. Numerous short length quartz veins, 1-10 cm wide, are also associated with the argillite. Small amounts of iron oxides and staining are present along fractures within the quartz bodies which generally strike $050^{\circ} \sim 060^{\circ}$ N.E.

Small, discontinuous zones of limonite capping and gossan are also common within the limestone-dolomite units.

Sulphide mineralization appears to be of both primary and secondary emplacements. The primary emplacement is prior to the metamorphism of the host rocks, while the secondary mineralization is primarily fracture filling, often cross-cutting the banded occurrences.

4. GEOCHEMISTRY

4.1 Rock Samples

Twelve rock samples from outcrop, old trenches and float were collected from the Blackrock claims (Figure 4) and geochemically analyzed for Cu, Pb, Zn, Ag, Au, W, and Hg. Significant Zn, Ag, Hg values have been identified in outcrop and several trenches (Appendix 2).

4.2 Soil Samples

A reconnaissance soil survey was carried out on the Blackrock Claims to assess precious and base metal potential.

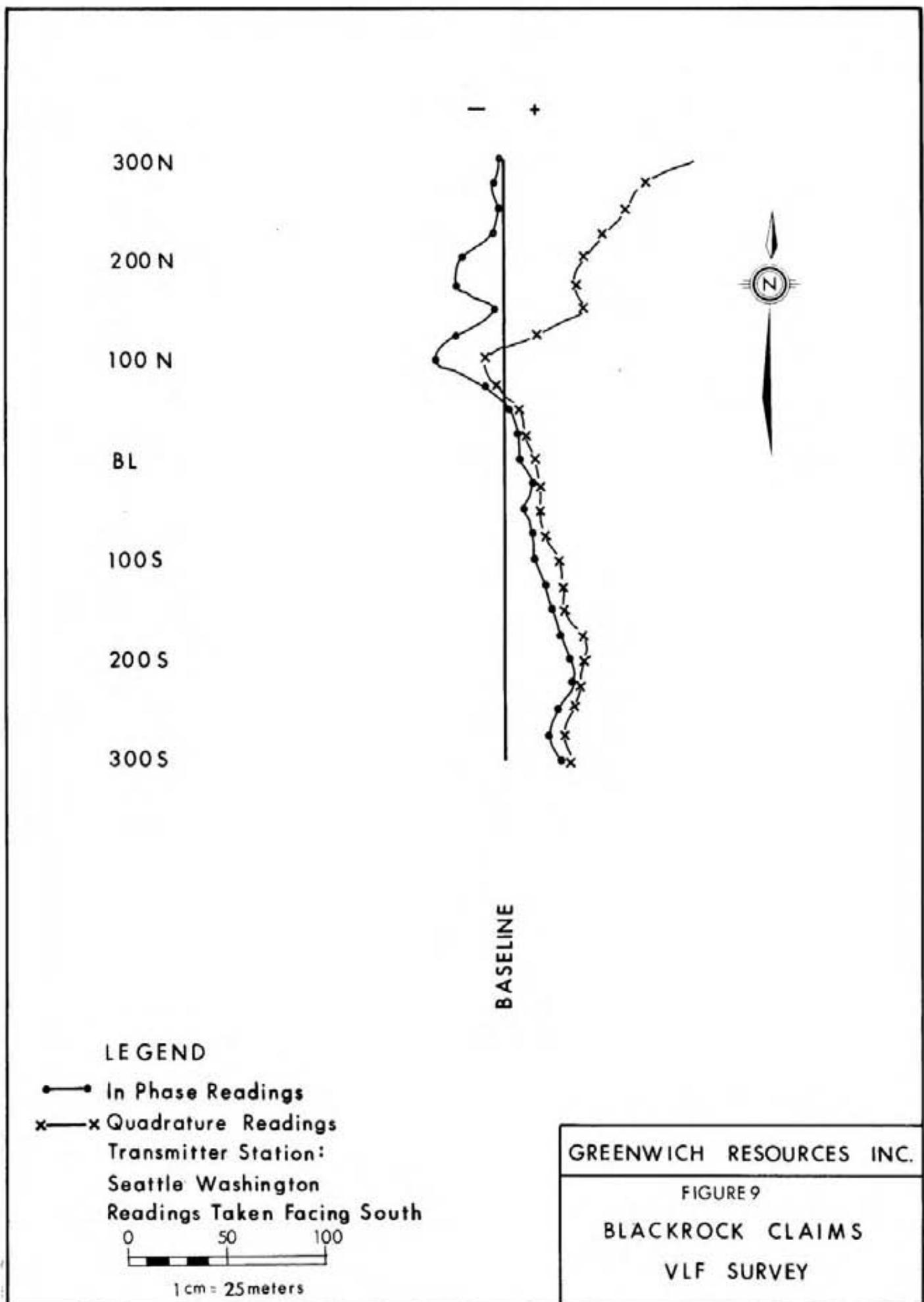
One hundred and three soil samples were collected at 25 metre intervals and geochemically analyzed for Zn, Ag, W (Figures 5,6,7 and 8). Significant Zn and Ag in soil anomalies are present at and around the known occurrence area.

B horizon soils at 5 cm to 20 cm depth were the preferred sampling media.

5. GEOPHYSICS

5.1 VLF-EM Survey

A VLF-EM reconnaissance survey was conducted along the base line (Figure 9). These results have provided little direct information or data on geological structure and contacts, and, are considered inconclusive.



6. CONCLUSIONS

1. Significant Zn, Ag and Hg values in bedrock and soil have been identified in the area of the Blackrock No. 2 and No. 3 Reverted Crown Grants. The sources of these anomalies appears to be consistent with a bedrock source(s) of silver-bearing sulphide mineralization in Reeves Limestone.
2. The regional structure and setting enhances the possibility of additional silver-bearing sulphide mineral occurrences throughout the Blackrock Claim area.

7. RECOMMENDATIONS

1. A more extensive grid system with additional soil and rock geochemical surveys is recommended for the Blackrock Claims.
2. Soil anomalies should be followed up by a prospecting and detailed mapping program.
3. Emphasis should be placed on locating and identifying the "Blackrock North" Pb - Zn mineral occurrence(s). Several adits, trenches and diamond drill holes are reported to be in this area.

8. SELECTED REFERENCES

LITTLE, H.W., 1960.

Nelson Map Area, West Half British Columbia (82FW 1/2),
G.S.C. Memoir 308.

LITTLE, H.W., 1964.

G.S.C. Map 1145A.

CERTIFICATE

I, David S. Evans, currently residing at 5232 Viceroy Drive N.W.,
Calgary, Alberta T3A 0V7, hereby certify that:

1. I am a mining exploration geologist and have practised my profession since 1966.
2. I am a graduate of the University of British Columbia with a B.Sc. (1966) in Chemistry and Geology, and a graduate of the Royal School of Mines, University of London, U.K. with a Ph.D. (1971) in Applied Geochemistry.
3. I am a registered Professional Geologist with the Association of Professional Engineers, Geologists and Geophysicists of Alberta, a Member of the Association of Exploration Geochemists, and a Fellow of the Geological Association of Canada.
4. I visited the Blackrock property on May 25, 1984.
5. The work in this report was carried out under my supervision.

Date

Aug 7/84

David S. Evans

David S. Evans, Ph.D., P.Geol.

APPENDIX I

ANALYTICAL INFORMATION

Laboratory: Terramin Research Labs Ltd.
Calgary, Alberta

Mesh Size: -80/soils, -100/rocks.

Extraction: For Cu/Pb/Zn/Ag: Nitric-Perchloric dissolution to dryness, taken up in dilute HCl

For Au : Fire assay fusion and cupellation followed by aqua regia dissolution of the bead.

For Hg : Cold aqua regia dissolution, separation and buffering.

Analysis: Atomic Absorbtion and Gaseous Atomic Absorption (Hg).

Tungsten: Carbonate fusion, acid dissolution and colorimetric determination by Dithiol,

APPENDIX 2

GEOCHEMICAL DATA



TERRAMIN RESEARCH LABS LTD.

ANALYTICAL REPORT

Job # 84-076

Robertson Research

Date June 23, 1984

Client Project 5019 Blackrock

Page 1/6

Soil	Sample No.	Zn ppm	Ag ppm	W ppm
L 100 N	075 W	220	0.3	3
	050	183	0.3	2
	025	193	0.3	1
	025 E	320	0.4	4
	050	270	0.2	4
	075	88	0.1	-1
	100 (1)	70	-0.1	-1
	100 (2)	122	0.3	-1
	125	240	0.2	2
	150	121	0.1	1
	175	133	0.1	1
	200	155	0.3	2
L 0+00	4+00 W	N.S.		
	3+75	N.S.		
	3+50	N.S.		
	3+25	171	0.5	-1
	3+00	N.S.		
	2+75	220	0.2	-1
	2+50	205	0.1	1
	2+25	167	0.1	2
	2+00	151	0.1	-1
	1+75	240	0.2	-1
	1+50	250	0.2	5
	1+25	270	0.3	2
	1+00	N.S.		



TERRAMIN RESEARCH LABS LTD.

ANALYTICAL REPORT

Job # 84-076

Date

Client Project 5019

Page 3/6

Sample No.		Zn ppm	Ag ppm	W ppm
Soil				
L 1+00 S	025 E	280	0.1	-1
	050	220	0.1	1
	075	220	0.1	5
	100	193	0.1	4
L 100 S	125 E	136	0.1	4
	150	152	-0.1	5
	175	183	-0.1	3
	200	206	0.3	2
L 200 S	250 W	N.S.		
	225	129	-0.1	1
	200	230	0.1	1
	175	220	0.1	4
	150	157	0.1	2
L 125 S	125	203	0.1	3
	100	187	0.3	-1
	075	152	0.1	5
	050	138	-0.1	5
	025	260	-0.1	4
	BL	300	-0.1	2
L 300 S	300 W	209	0.1	-1
	275	240	0.2	2
	250	147	-0.1	1
	225	183	-0.1	3
	200	136	0.1	4
	175	107	-0.1	1

14, 2235 - 30th Avenue N.E., Calgary, Alberta T2E 7C7

(403) 276-8668

Telex 03-82117 PCGY

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Date

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Soil	Sample No.	Zn ppm	Ag ppm	W ppm
L 300 S	150 W	131	-0.1	-1
	125	240	0.3	2
	100	153	0.1	2
	075	179	0.2	1
	050	270	0.2	1
	025	230	0.2	2
	BL	200	0.1	3
BL	300 N	103	0.1	-1
	275	123	0.2	2
	250	138	0.2	2
	225	133	0.3	3
	200	157	0.2	3
	175	161	0.1	1
	150	141	0.1	3
	125	177	0.1	1
	100	131	0.3	1
	075	142	0.8	4
	050	550	0.1	1
	025	6700	0.7	-1
	025 S	2020	0.2	2
	050	7400	1.0	-1
	075	2170	0.3	1
	125	210	-0.1	4
	150	70	-0.1	-1
	175	230	-0.1	1



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ANALYTICAL REPORT

Job # 84-076

Date

Client Project 5019

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<u>Soil</u>	Sample No.	Zn	Ag	W
		ppm	ppm	ppm
BL	225 S	164	-0.1	-1
	250	207	0.1	1
	275	230	-0.1	-1

APPENDIX 3

STATEMENT OF
EXPLORATION EXPENDITURES



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ANALYTICAL REPORT

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Date

Client Project 5019

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Rock	Sample No.	Cu ppm	Pb ppm	Zn ppm	W ppm	Ag ppm	Au ppb	Hg ppb
	BQV-1	6	1	3	-1	0.04	2	5
	OC -1	16	<u>2.90 %</u>	<u>4.80 %</u>	1	34.0	60	1455
	OC -2	13	<u>1.77 %</u>	<u>9.40 %</u>	-1	28.0	68	2185
	OC -3	32	<u>1.79 %</u>	<u>14.4 %</u>	1	24.0	62	1240
	BTR-1	17	3000	<u>11.1 %</u>	1	9.20	46	3420
	BTR-3A	4	340	770	-1	0.29	8	15
	BTR-3B	3	27	140	1	0.05	2	5
	BTR-5A	4	19	3800	-1	0.07	2	100
	BTR-5B	54	9700	<u>3.30 %</u>	3	13.8	122	6400
	BTR-6A	9	<u>1.58 %</u>	<u>4.00 %</u>	-1	35.0	72	170
	BTR-6B	10	6700	<u>2.70 %</u>	-1	17.0	24	115
	BTR-7	7	4000	<u>1.15 %</u>	1	9.70	32	60

STATEMENT OF 1984 EXPENDITURES
BLACKROCK CLAIMS

Other Expenditures

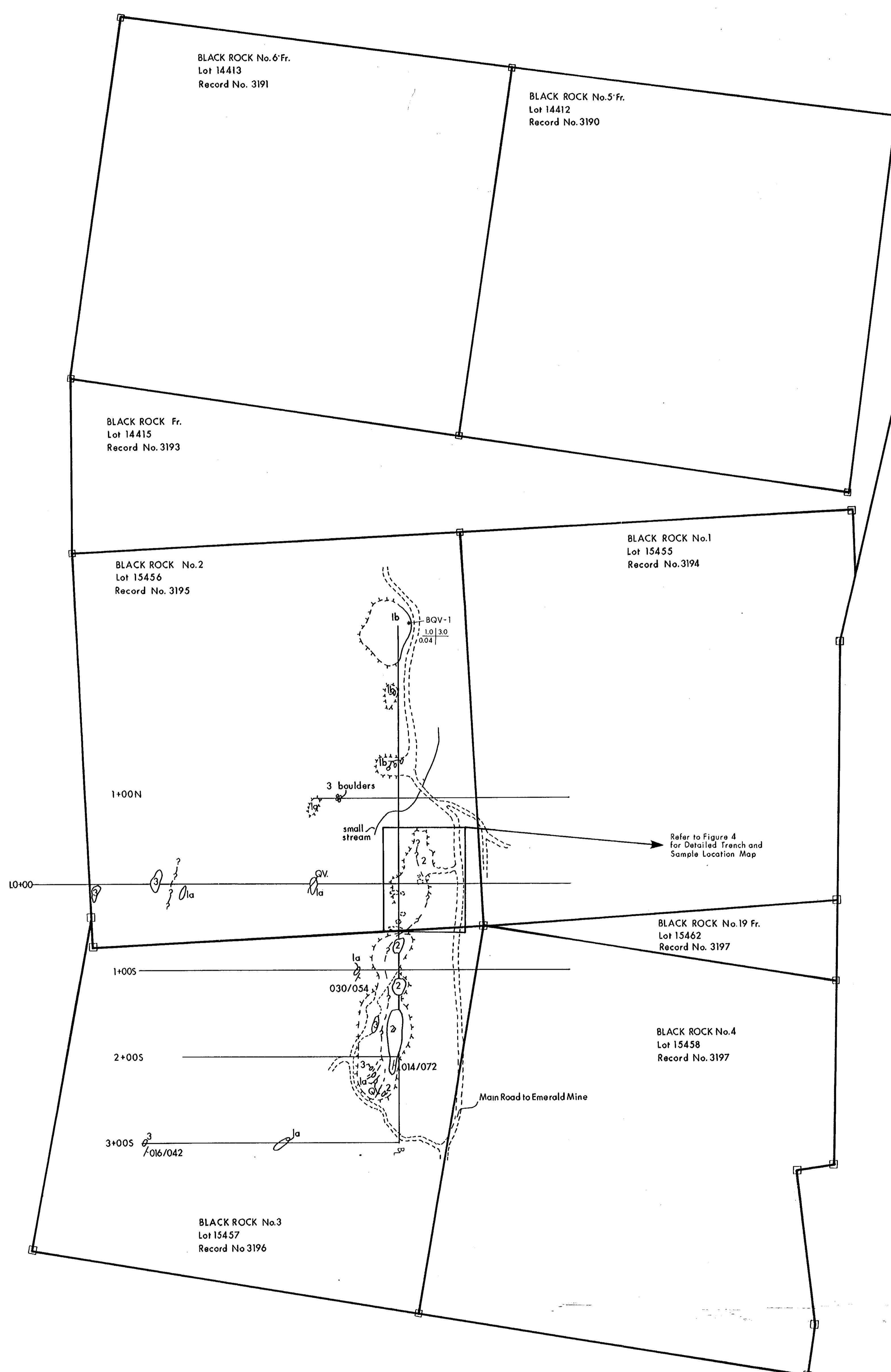
Field Office Rental	95.00
Supplies and Equipment	150.00
Truck Rental (incl. gas, oil, maintenance)	403.52
Communications - Telephone	30.00
Analytical	300.00
Drafting	<u>150.00</u>
Total Other Expenditures	<u>\$1,128.52</u>

Summary

Total Wages	\$2,242.50
Total Subsistence	\$ 400.00
Total Other Expenditures	<u>\$1,128.52</u>
Total Project Costs	\$3,771.02
Report Preparation	<u>\$ 400.00</u>
Total 1984 EXPENDITURES	<u>\$4,171.01</u>

STATEMENT OF 1984 EXPENDITURES
BLACKROCK CLAIMS

NAME/ADDRESS	DAYS WORKED	WAGES			SUBSISTENCE		
		Days Worked	Daily Rate	Total Wages	Total Days	Rate Per Day	Amount
Gordon W. Sinden Senior Technologist Robertson Research Canada Ltd. 300, 604 - 1st Street S.W. CALGARY, Alberta T2P 1M7	May 25, to July 1, 5 8	6 1/2	\$155.00	\$1,007.00	6 1/2	\$25.00	\$162.50
David S. Evans Exploration Manager/Geochemist Robertson Research Canada Ltd. 300, 604 - 1st Street S.W. CALGARY, Alberta T2P 1M7	May 25	1	\$300.00	\$300.00	1	\$25.00	\$25.00
Tim Joveski Field Assistant R.R. #1 Nelson, B.C. V1L 5P4	May 18, 22, 23, 25 28, June 1, 6, 7, 8	8 1/2	\$110.00	\$935.00	8 1/2	\$25.00	\$212.50
			TOTAL	\$2,242.50		TOTAL	\$ 400.00



LEGEND

- 1 a) Banded Schistose Argillite 3) Pyrite Bearing
- 1 b) Black Banded Calcareous Argillite
- 2 Buff Dolomite (Well Indurated)
- 3 Sucrosic Limestone (Reeves Member)
- (O) Outcrop
- (*) Subcrop
- (—) Rock Contacts
- (---) Rock Contacts Inferred
- (○) Trenches
- (---) Road or Stripped Clearing
- (* Sampled Quartz Vein
- Pb (ppm) Zn (ppm) Ag (ppm)

GEOLOGY

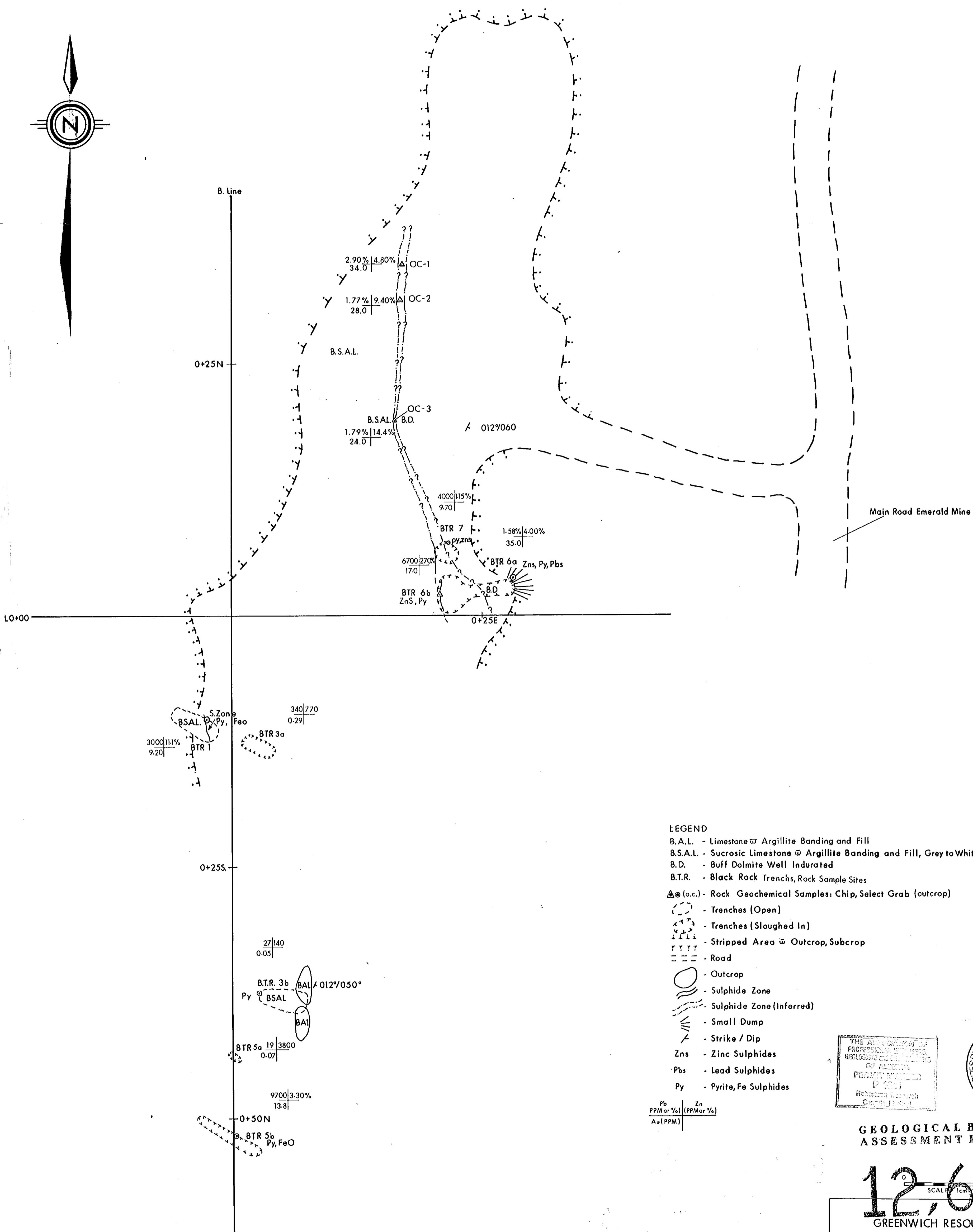
- 1a Banded Schistose Argillite
- 1b Black Banded Argillite
- 2 Buff Dolomite (well indurated)
- 3 Sucrosic Limestone (Reeves member)

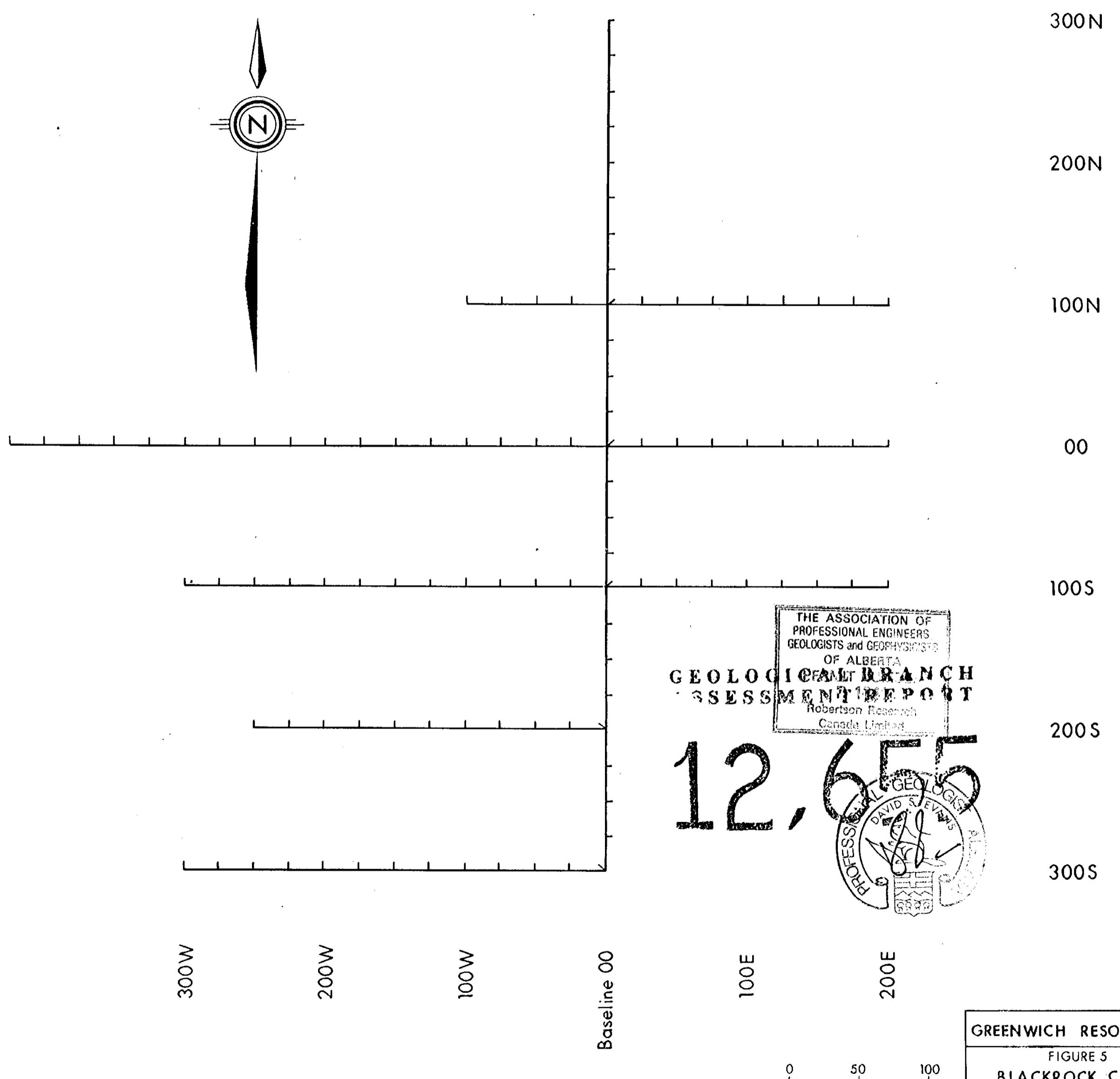
GEOLOGICAL BRANCH ASSESSMENT REPORT

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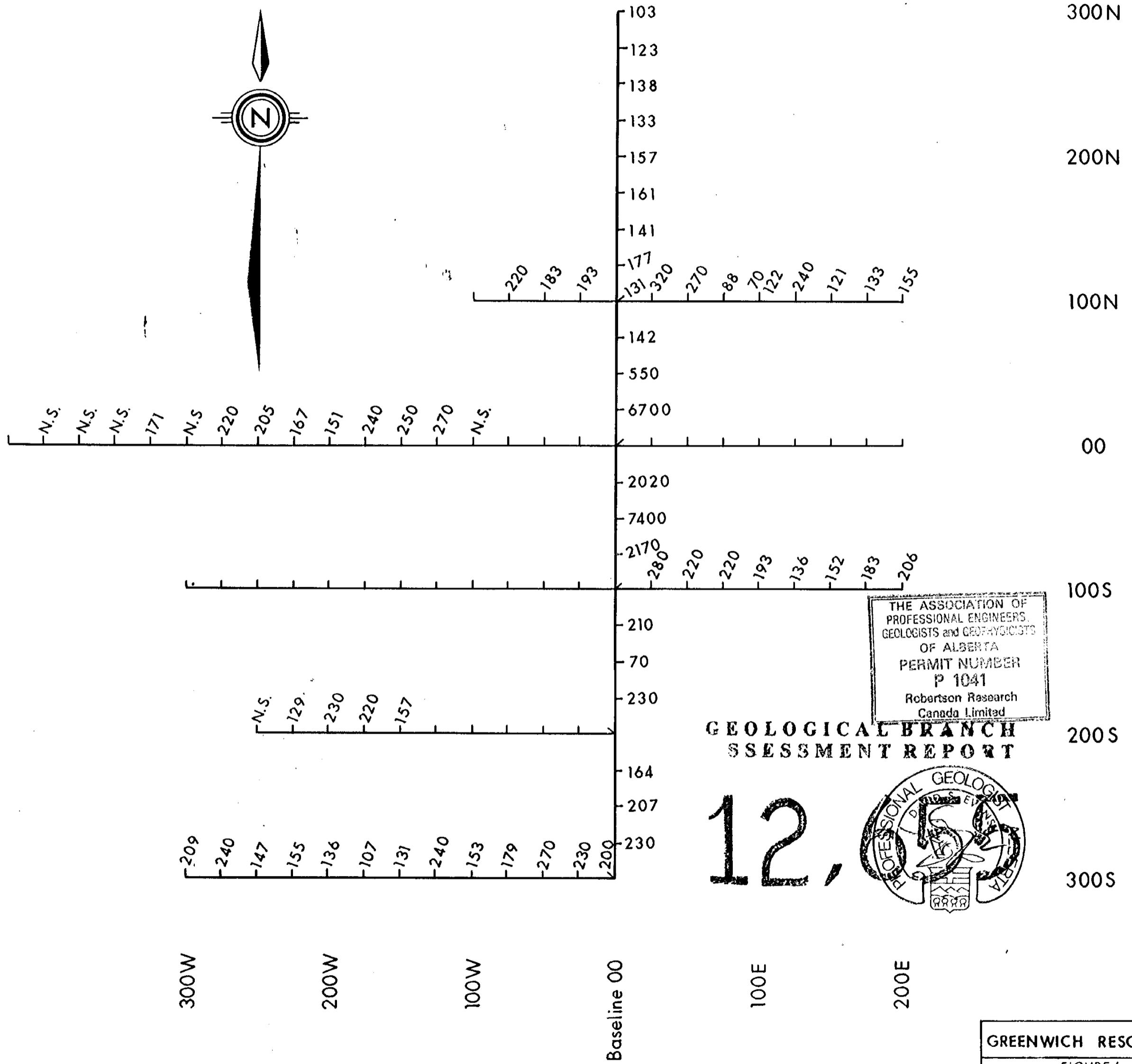
GREENWICH RESOURCES INC.

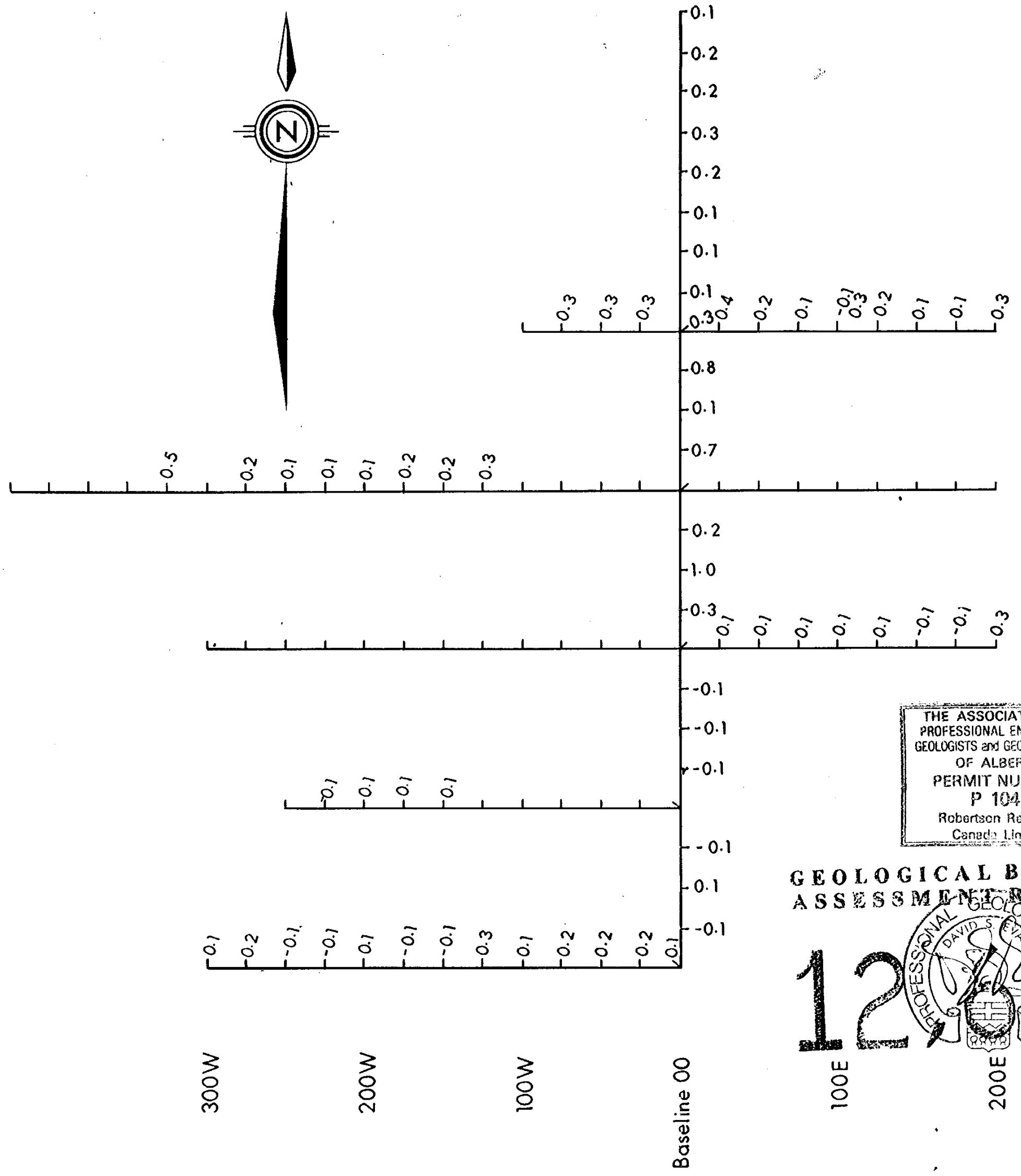
FIGURE 3
BLACK ROCK CLAIMS
RECONNAISSANCE SURVEY
LOCATION MAP





GREENWICH RESOURCES INC.
FIGURE 5
BLACKROCK CLAIMS
GEOCHEMICAL SURVEY
SAMPLE LOCATION MAP





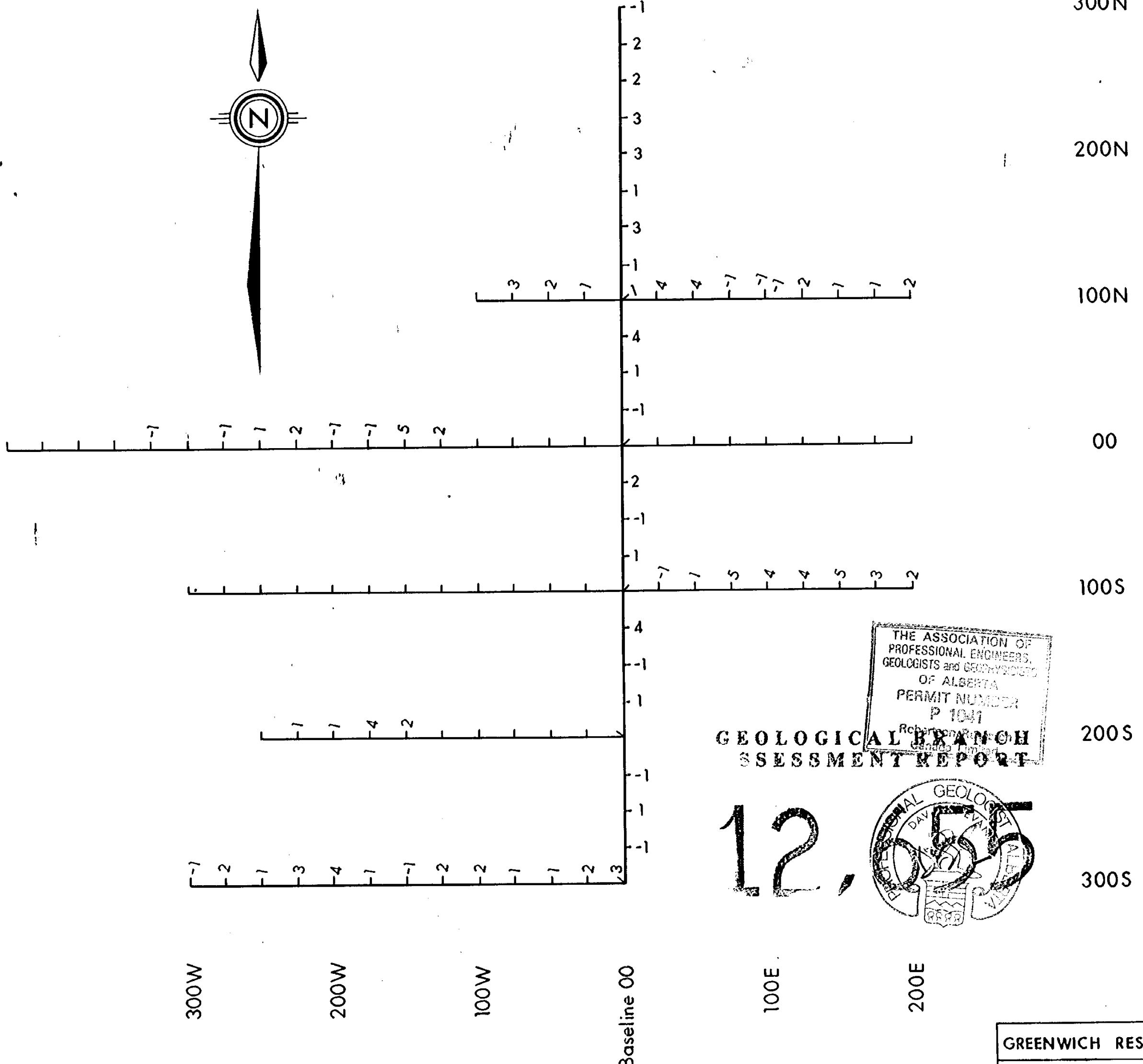
GREENWICH RESOURCES INC.
FIGURE 7
BLACKROCK CLAIMS
GEOCHEMICAL SURVEY
Silver in Soil (ppm)

0 50 100
1cm = 25meters

THE ASSOCIATION OF
PROFESSIONAL ENGINEERS,
GEOLOGISTS and GEOPHYSICISTS
OF ALBERTA
PERMIT NUMBER
P 1041
Robertson Research
Canada Limited

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GREENWICH RESOURCES INC.
FIGURE 8
BLACKROCK CLAIMS
GEOCHEMICAL SURVEY
Tungsten in Soil (ppm)