

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,345

GEOCHEMICAL EVALUATION

OF THE

ARCHIE GROUP MINERAL CLAIMS

Cariboo Mining Division
British Columbia
NTS 93A/7W

Latitude $52^{\circ} 27'$ Longitude $120^{\circ} 48'$

HOMESTAKE MINERAL DEVELOPMENT COMPANY
VANCOUVER, B.C.

November 1984

M. O'Donnell
K. Harrap

TABLE OF CONTENTS

	PAGE
1.0 INTRODUCTION.....	1
1.1 Summary.....	1
1.2 Location and Access.....	1
1.3 Physiography and Vegetation.....	2
1.4 Claims Schedule.....	2
2.0 REGIONAL GEOLOGY.....	3
3.0 GEOCHEMISTRY.....	4
3.1 Sampling Procedures.....	4
3.2 Geochemical Results.....	4
4.0 CONCLUSIONS AND RECOMMENDATIONS.....	6
5.0 REFERENCES.....	7
APPENDIX A	Statement of Expenditures
APPENDIX B	Grouping Notices and Assessment Filings
APPENDIX C	Analytical Procedures
APPENDIX D	Geochemical Results
APPENDIX E	Statement of Qualifications and Field Personnel

LIST OF FIGURES AND MAPS

		PAGE
Figure 1	Location Map	2a
Figure 2	Claim Location.....	2b
Figure 3	Claim Sketch Scale 1:50,000.....	2c
Map 1	Sample Location Map Scale 1:10,000.....	Pocket
Map 2	Gold Geochemistry Scale 1:10,000.....	Pocket

1.0 INTRODUCTION

1.1 Summary

This report records the results of part of a regional geological and geochemical reconnaissance program carried out in the Quesnel Trough of British Columbia during the summer of 1984 by Homestake Mineral Development Company staff. A linear belt of Upper Triassic black phyllitic argillites on the eastern margin of the Quesnel Trough was the principal exploration target in all areas (O.F. 574 Campbell R.B. 1978).

JMT Services Corp. was contracted to assist in the evaluation of the Archie Group.

The Archie Group mineral claims were staked in November and December 1983 as a continuation of the staking activity that followed the announcement by Eureka Resources of significant gold values intersected in diamond drilling on their nearby Frasergold property.

During the months of May and November 1984, reconnaissance prospecting and geochemical soil and silt surveys were conducted over the Archie Group mineral claims. Results indicated one gold anomaly in silt from a creek draining the property. This anomaly should be followed up with further work.

The ownership title to the 20-unit Archie claim is jeopardized by the presence of a pre-existing claim which is in good standing. No further work is justified on that claim until the title is secured.

A total of 23 soil samples and 1 silt sample were collected from the Archie Group area.

1.2 Location and Access

The Archie Group is located on the south shore of Horsefly Lake,

near the mouth of Archie Creek, 85 kilometers east of Williams Lake, B.C. (Figure 1 and 2). The property is centered at Latitude 52° 27' and Longitude 120° 48'. Access is by boat on Horsefly Lake, or by logging roads south of the claims.

Outcrop exposure on the property is poor, and further obscured by heavy snow from November until May or June.

The property lies near an area of active logging.

1.3 Physiography and Vegetation

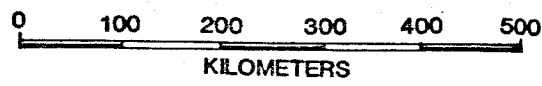
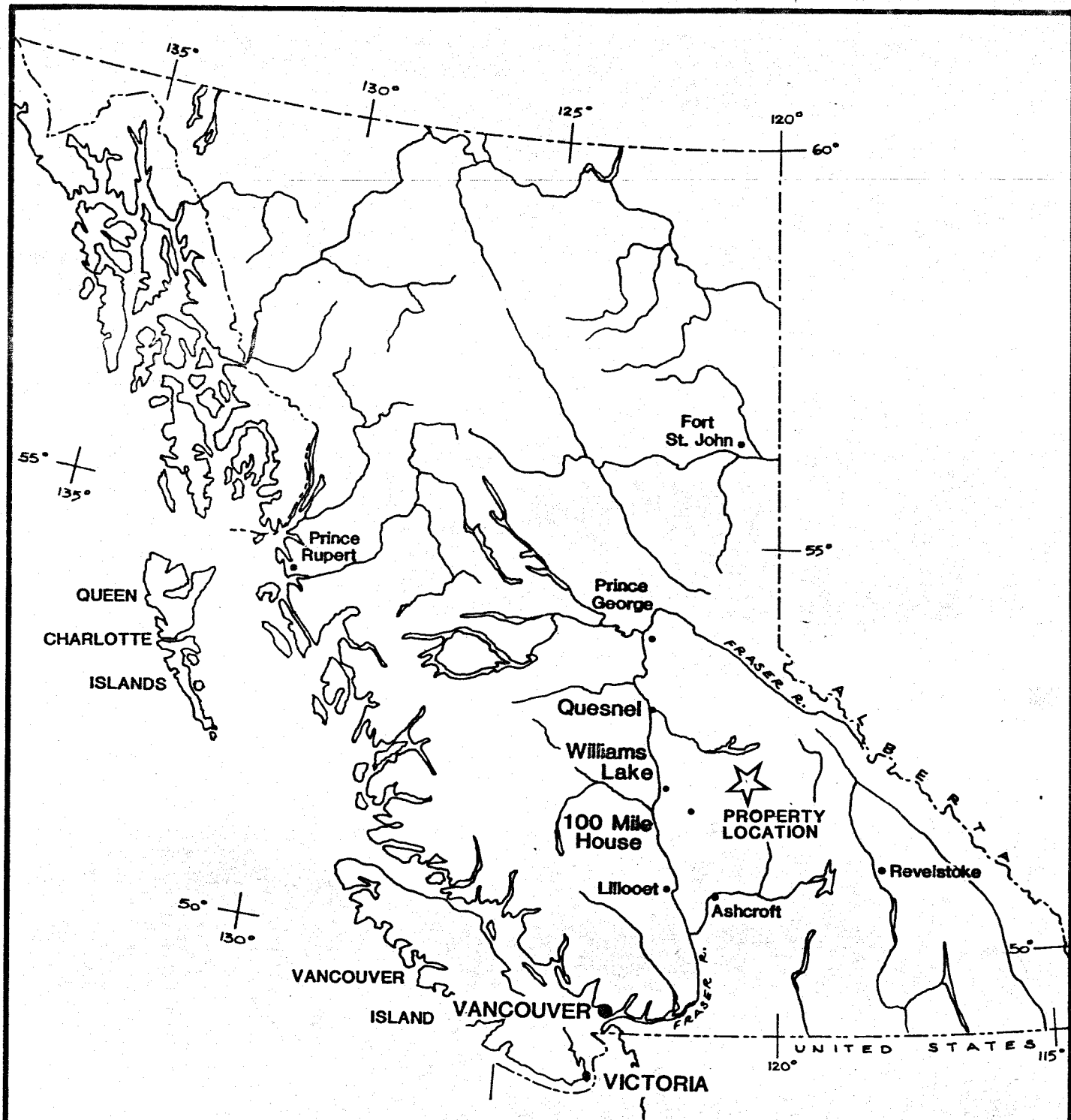
Topographic relief within the Archie Group is moderate to steep, with elevations varying from 2,570 feet (783 meters) a.s.l. at Horsefly Lake to about 4,700 feet (1,432 meters) a.s.l. in the Archie Fraction claims.


Vegetation generally consists of good commercial stands of cedar, spruce, and fir, with moderate underbrush. In certain locales, underbrush is dense with a considerable amount of devils club and young cedar second growth.

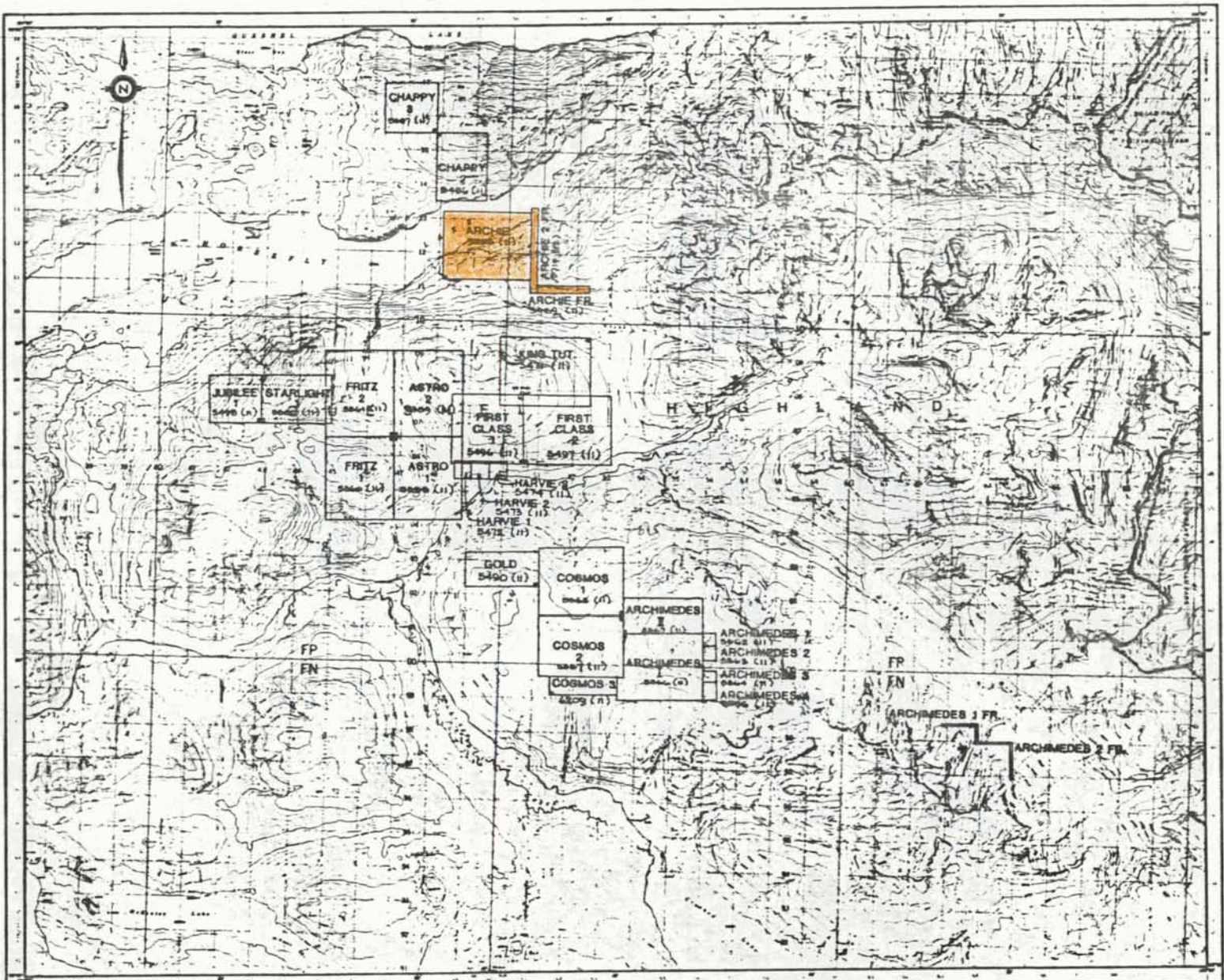
1.4 Claims Schedule: Archie Group

This report deals with those claims listed below and as outlined on the attached Claims Sketch (Figure 3):

<u>Claim Name</u>	<u>Units</u>	<u>Record Number</u>	<u>Recording Date</u>
Archie	20	5488(11)	November 22, 1983
Archie Fraction	1 (Fr.)	5489(11)	November 22, 1983
Archie 2 Fraction	1 (Fr.)	5710(12)	December 28, 1983
Total	22 Units		



HOMESTAKE MINERAL DEVELOPMENT COMPANY 		
ARCHIE GROUP GENERAL LOCATION MAP		
CENTRAL BRITISH COLUMBIA		
DRAWN Revised _____	DATE 11/84	FILE CODE 93 A/7
		FIG. 1

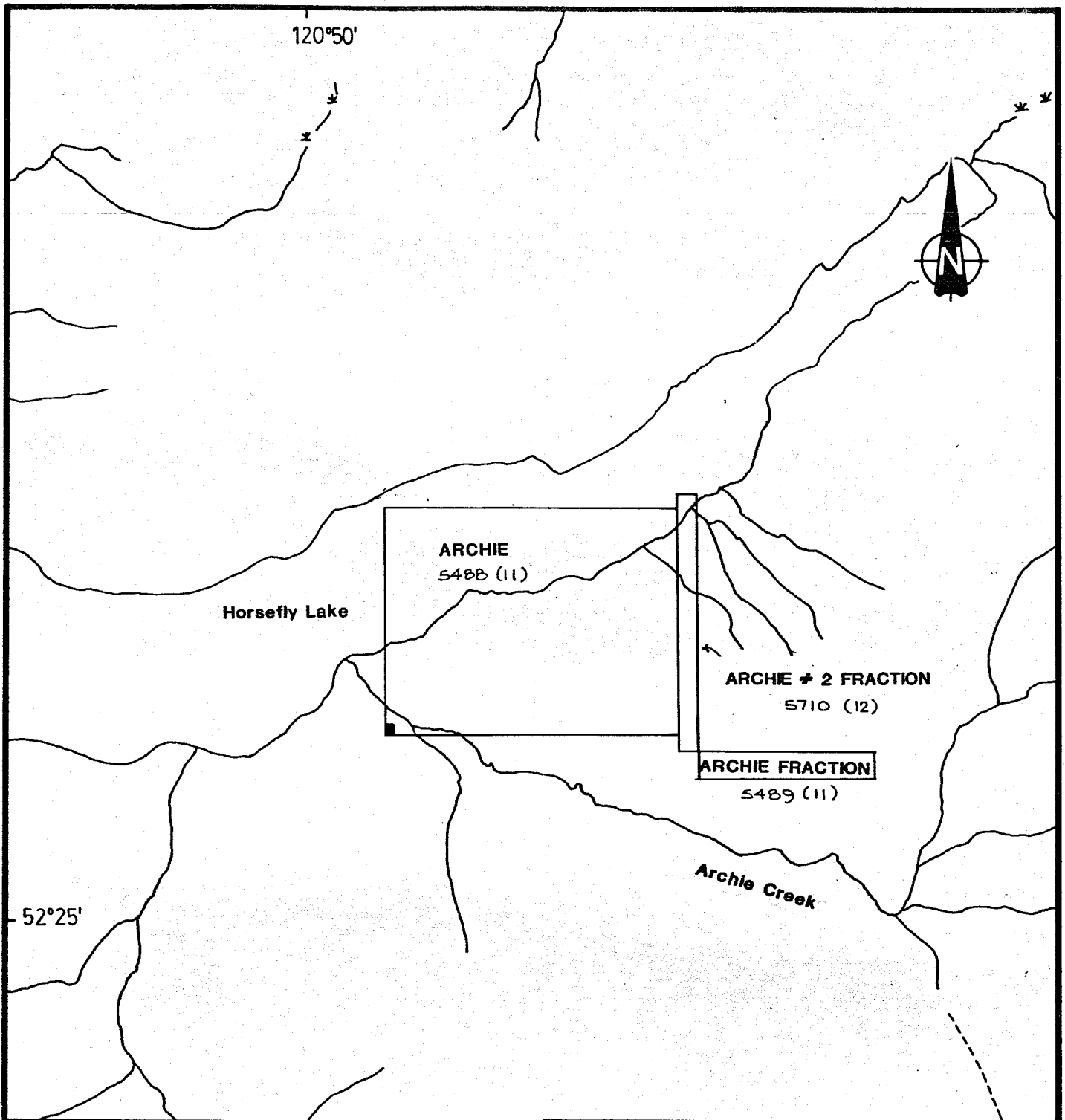


HOMESTAKE
MINERAL DEVELOPMENT COMPANY




**ARCHIE GROUP
CLAIM LOCATION
CARIBOO
MINING DISTRICT**

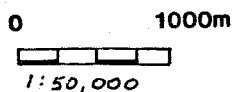
DRAWN	DATE	FILE CODE
BY	1/1988	9847

FIG. 2



LEGEND

-  CLAIM BOUNDARY
-  LCP
-  ROAD



HOMESTAKE
MINERAL DEVELOPMENT COMPANY



ARCHIE GROUP
CLAIM SKETCH

CARIBOO MINING DISTRICT

DRAWN KLH	DATE 11/84	FILE CODE 93A/7	FIG. 3
Revised _____			

2.0 REGIONAL GEOLOGY

The Archie Group is situated within a series of Upper Triassic sedimentary and volcanic rocks located near the eastern edge of the Quesnel Trough structural terrane. The Quesnel Trough rocks are fault bounded along the eastern margin against late Paleozoic schists, gneisses and phyllites of the Shuswap Metamorphic Complex of the Omineca Structural Terrane (O.F. 574 Campbell R.B. 1978).

Westward, the Quesnel Trough rocks consist of basic to intermediate volcanic, volcanoclastics, and sedimentary rocks that were intruded by Jurassic and Cretaceous intrusive rocks.

The region is characterized by elongate northwesterly trending stratigraphic assemblages of sedimentary and volcanic rocks.

3.0 GEOCHEMISTRY

3.1 Sampling Procedures

Geochemical sampling was carried out by JMT Services Corp. for Homestake, and by Homestake staff.

Soil samples were collected on reconnaissance traverses established with flagging, hip chain, and compass. Sample intervals varied from 100 to 500 meters. Each sample site was identified with flagging and the appropriate sample number. Samples of the B horizon of the soil profile were collected from depths of 10 to 30 centimeters. The 500 to 750 gram sample was described as to colour, size fraction, and organic content, prior to being placed in a kraft bag. Samples were dried prior to shipment to the analytical laboratory.

One stream sediment sample was collected during the May soil reconnaissance traverse. Field data including width, depth and flow rate of the stream, and colour, composition, and organic content of the sample were recorded at the sample site. The wet sample weighed approximately 600 grams, and was stored in a kraft paper bag. The sample was dried prior to shipment to the laboratory.

3.2 Geochemical Results

A total of 23 soil samples and 1 silt sample were collected in reconnaissance exploration of the Archie Group. All of the analytical results for gold were plotted on the "Gold Geochemistry" map at a scale of 1:10,000 (Maps 1 and 2).

The silt sample yielded 150 ppb gold, which is thought to be significantly anomalous for silts in this area. All soil samples yielded

values less than 20 ppb gold and were not considered anomalous. One soil sample carried a slightly elevated silver value of 1.0 ppm, which is at the threshold of being anomalous.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The geochemical exploration program in the Archie Group area yielded one moderately anomalous gold value from a silt sample draining the Archie Fraction claim. No other anomalous geochemical results were recorded.

A limited geochemical and geological program is warranted in the area near the Archie Fractional claims to evaluate the significance of the silt sample geochemical anomaly.

5.0 REFERENCES

- Campbell, R. B., 1978 Geology of the Quesnel Lake Map - Area
B.C. 1:125,000 G.S.C. Open File 574.
- Campbell, R. B., 1963 Quesnel Map Sheet 1" to 4 miles; G.S.C.
map 1-1963
- Campbell, K. V., 1971 Metamorphic Petrology and Structural
Geology of the Crooked Lake Area,
Cariboo Mountains, B.C. (unpublished
Ph.D. Thesis, University of Washington)

APPENDIX A
STATEMENT OF EXPENDITURES
ARCHIE GROUP

LABOUR (field 1984)

G. Cooper:	May 18,20		
	25 days @ \$122/day		\$ 244.00
F. Speidel:	May 18		
	1 day @ \$93/day		\$ 186.00
B. Bennett	October 31 ($\frac{1}{2}$) November 1,2		
	2 $\frac{1}{2}$ days @ \$250/day		\$ 625.00
G. Richards	October 31 ($\frac{1}{2}$) November 1		
	1 $\frac{1}{2}$ days @ \$250/day		\$ 375.00
R. Williams	October 31 ($\frac{1}{2}$) November 1		
	1 $\frac{1}{2}$ days @ \$250/day		\$ 375.00
K. W. Livingstone	October 31 ($\frac{1}{2}$) November 1		
	1 $\frac{1}{2}$ days @ \$250/day		\$ 375.00
			<hr/>
			\$ 2,180.00

LABOUR IN OFFICE - REPORTS & DRAFTING

K. Livingstone:	2 days @ \$250/day	500.00
K. Harrap:	1 day @ \$ 93/day	93.00
M. O'Donnell:	3 days @ \$108/day	324.00
Drafting & Typing		600.00

TRANSPORTATION

Truck:	JMT Truck Rental 4 x 4		
	3 days @ \$40/day	\$ 120.00	
	Mileage 370 miles @ \$0.25/m	\$ 92.50	212.50

TRAVEL

	Hotel	\$ 95.11	
	Fuel & Fares	\$ 161.10	
	Worth County Lodge	\$ 270.00	526.21

MATERIALS AND SUPPLIES

Flagging, Topo fil, Kraft Bags, etc.	100.00
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Typing	100.00
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ANALYTICAL

20 Soil sample prep @\$0.60	12.00
20 ICP Analysis @\$6.00	120.00
20 Geochem Au by FA+AA @\$5.50	110.00

TOTAL GEOCHEMISTRY	<u>242.00</u>
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GRAND TOTAL	4,277.71
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APPENDIX B
GROUPING NOTICES
AND
ASSESSMENT FILINGS
ARCHIE GROUP



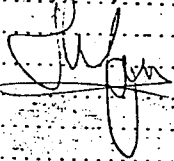
Province of British Columbia
 Ministry of Energy, Mines and Petroleum Resources
 MINERAL RESOURCES BRANCH-TITLES DIVISION

SUB-RECORDER
 RECEIVED
 NOV 19 1984
 222481E
 M.R. # 22245UE \$
 VANCOUVER, B.C.

MINERAL ACT
 FORM 1

NOTICE TO GROUP

Mining Division CARIBOO Location ARCHIE CREEK
 Name of group ARCHIE Map No. 93A/7W
 We, the undersigned owners* of the following adjoining claims, desire to group them according to the provisions of the Mineral Act:-

NAME OF CLAIM	No. of Units	Record No.	Month of Record	SIGNATURE OF OWNER*	Free Miner Certificate No.
ARCHIE	20	5488	11	HOMEPLACE	
ARCHIE FRACTION	1	5489	11	MINERAL DEVELOPMENT	234244
ARCHIE 2 FRACTION	1	5710	12	COMPANY 201-856 HOWER ST. VANCOUVER B.C. V6B 2W5	
				J. J. MORROW, AGENT 	

* May be signed by agent on behalf of owner.

DRILLING (Details in report submitted as per section B of regulations.) (The itemized cost statement must be part of the report.)	COST
GEOLOGICAL, GEOPHYSICAL, GEOCHEMICAL (Details in report submitted as per section B, 6, or 7 of regulations.) (The itemized cost statement must be part of the report.) (State type of work in space below.) Seismicity \$3458.71	
TOTAL OF C AND D	\$3458.71

Who was the operator (provided the financing)?
 Name: HOMESTEAD MUNICIPAL DEVELOPMENT CO.
 Address: 2015 E. HOMER ST.
WANKAMON, PA.

Portable Assessment Credits (PAC) Withdrawal Request	AMOUNT
Amount to be withdrawn from owner(s) or operator(s) account(s):	
Name of Owner	
1. May be no more than 30 per cent of value of the approved work submitted as assessment work in C and (or) D.	
2.	
3.	
4.	
TOTAL WITHDRAWAL	
TOTAL OF C AND (OR) D PLUS PAC WITHDRAWAL	

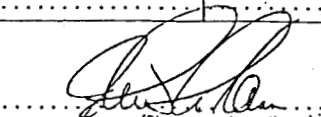
I wish to apply \$ 3000.00 of this work to the claims listed below.
 (State number of years to be applied to each claim, its month of record, and identify each claim by name and record no.)

ARCHIE	5488 (11)	14 YEARS	20 x 100 x 1 = 2000
ARCHIE FRACTURE	5489 (11)	4 YEARS	1 x 100 x 3 = 300
ARCHIE FRACTURE	5710 (12)	4 YEARS	1 x 100 x 3 = 300
			<u>3000</u>

ALL CLAIMS ARE IN THE ARCHIE GROUP.

Value of work to be credited to portable assessment credit (PAC) account(s).
 (May only be credited from the approved value of C and (or) D not applied to claims.)

Name	AMOUNT
1. <u>HOMESTEAD MUNICIPAL DEVELOPMENT CO.</u>	<u>58.71</u>
2.	
3.	
1. Operator(s) name	
2. Party providing financing	
3.	


 (Signature of Applicant)

APPENDIX C
ANALYTICAL PROCEDURES

ANALYTICAL PROCEDURES

All analyses were completed by Acme Analytical laboratories in Vancouver, B.C.

All rock, soil and silt samples were analysed utilizing 30 element Inductively Coupled Argon Plasma (ICP) techniques and geochemical fire assay plus atomic absorption (FA+AA) analytical procedure for gold.

All samples were prepared to a -100 mesh size fraction. Half gram samples are digested with 3 ml of dilute regia at 95°C for one hour, then diluted to 10 ml with water. Thirty elements were then analysed by ICP (Appendix D). This technique enables only a partial leach for 20 of the 30 elements analysed.

Gold analyses required 10 gram samples that were subjected to a fire assay preconcentration techniques to produce a lead button. The button was then digested with hot aqua regia. The quantity of gold was then determined from the solution by graphite furnace Atomic Absorption technique.

APPENDIX D
GEOCHEMICAL RESULTS
ARCHIE GROUP

SAMPLE#	Hg ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Aut ppb	Hg ppb
BB-99-1-8033	6	48	10	171	.9	55	10	775	2.76	17	2	ND	4	34	3	2	2	24	.47	.12	19	21	.43	94	.03	22	1.19	.01	.02	2	150	50
BB-04-3-7111	8	57	16	173	.4	60	13	559	3.50	20	2	ND	6	17	2	2	2	29	.14	.08	18	23	.51	102	.03	16	1.49	.01	.02	2	18	40
BB-04-3-7112	2	11	44	122	.2	18	7	203	1.98	4	2	ND	2	12	1	2	2	56	.30	.03	5	46	.53	95	.16	11	1.60	.01	.01	2	1	30
BB-04-3-7113	2	11	9	111	.6	21	6	145	2.63	3	2	ND	4	11	1	2	2	32	.12	.17	10	25	.34	168	.04	12	1.44	.01	.01	2	1	20
WL-84-831	2	17	8	61	.4	20	5	296	1.48	4	5	ND	2	15	1	2	2	19	.25	.08	9	21	.41	43	.04	6	.70	.01	.05	2	2	2
WL-84-832	1	7	2	13	.3	5	1	46	.43	4	5	ND	2	5	1	2	2	13	.04	.01	5	7	.05	16	.02	4	.20	.01	.01	2	2	2
WL-84-833	4	14	9	56	.3	14	2	101	2.08	3	5	ND	3	7	1	2	2	42	.07	.02	5	16	.25	34	.09	4	.63	.01	.03	2	1	1
WL-84-834	5	33	14	115	1.0	41	9	445	2.83	3	5	ND	5	19	1	2	2	30	.22	.06	14	30	.56	94	.07	5	1.47	.01	.11	2	2	2
WL-84-835	2	8	11	34	.2	8	2	101	1.20	3	5	ND	2	8	1	2	2	33	.11	.03	5	10	.26	51	.07	4	.57	.01	.07	2	1	1
WL-84-836	2	11	10	31	.1	7	1	54	1.32	5	5	ND	3	5	1	2	2	23	.05	.08	7	11	.13	46	.03	4	.48	.01	.02	2	1	1
WL-84-837	3	21	11	91	.6	21	5	111	2.32	7	5	ND	4	9	1	2	2	23	.08	.18	6	22	.35	69	.04	4	1.01	.01	.05	2	1	1
WL-84-838	1	8	8	41	.2	7	2	85	1.08	5	5	ND	2	5	1	2	2	18	.09	.06	6	10	.16	51	.03	3	.47	.01	.03	2	2	2
WL-84-839	2	13	10	54	.3	16	4	118	1.52	7	5	ND	3	10	1	2	2	18	.10	.04	9	13	.29	58	.03	3	.76	.01	.05	2	3	3
WL-84-840	2	12	7	55	.2	11	3	205	1.27	5	5	ND	2	9	1	2	2	17	.10	.04	9	11	.25	44	.04	3	.59	.01	.05	2	1	1
84-D-1874	3	24	10	75	.5	22	6	213	1.82	6	5	ND	4	12	1	2	2	18	.14	.07	11	17	.36	66	.03	5	.88	.01	.06	2	2	2
84-D-1875	1	10	5	32	.1	7	2	63	1.31	6	5	ND	2	7	1	2	2	18	.10	.06	5	12	.17	42	.03	3	.52	.01	.03	2	2	2
84-D-1876	2	13	6	36	.4	10	5	178	1.41	4	5	ND	2	13	1	2	2	20	.11	.05	14	15	.20	75	.04	4	.70	.01	.04	2	2	2
84-D-1877	2	13	9	48	.2	14	4	119	1.66	5	5	ND	3	8	1	2	2	22	.14	.04	8	15	.27	50	.04	4	.63	.01	.03	2	2	2
84-D-1878	2	15	8	84	.4	17	4	137	2.32	4	5	ND	3	9	1	2	2	26	.11	.14	7	19	.28	66	.04	4	1.03	.01	.04	2	1	1
84-D-1879	3	24	7	81	.3	24	5	231	1.67	3	5	ND	4	12	1	2	2	20	.19	.08	11	17	.40	52	.04	4	.89	.01	.06	2	2	2
84-D-1880	2	9	10	45	.2	8	2	58	1.60	5	5	ND	2	6	1	2	2	27	.05	.14	6	13	.14	48	.03	5	.74	.01	.02	2	2	2
84-D-1881	2	11	13	64	.6	11	2	182	2.31	5	5	ND	3	5	1	2	2	34	.05	.14	6	16	.20	39	.05	3	.76	.01	.02	2	2	2
84-D-1882	1	5	1	9	.1	2	1	21	.32	2	5	ND	2	3	1	2	2	12	.02	.01	5	4	.04	14	.02	4	.22	.01	.01	2	2	2
84-D-1883	2	9	8	28	.6	7	1	51	1.30	2	5	ND	2	3	1	2	2	29	.03	.06	6	9	.09	15	.04	4	.39	.01	.02	2	1	1

APPENDIX E

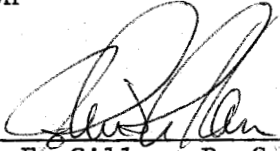
STATEMENT OF QUALIFICATIONS
AND FIELD PERSONNEL

CERTIFICATE

I, JOHN F. GILLAN, of the City of Vancouver, British Columbia, do hereby certify that:

1. I am currently employed as Regional Geologist by Homestake Mineral Development Company with offices at 201, 856 Homer Street, Vancouver, B.C.
2. I am a Fellow of the Geological Association of Canada.
3. I am registered as a Professional Geologist with the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
4. I have been employed continuously as a geologist since 1971.
5. I graduated from the University of Western Ontario in geology (Bachelor - 1969) and completed the Masters program in geology at Memorial University of Newfoundland (1971).
6. I supervised the preparation of this report which is based on my personal observations on the property as well as field work completed under my supervision

Vancouver, B.C.




John F. Gillan, P. Geol. FGAC
Regional Geologist
Homestake Mineral Development

STATEMENT OF QUALIFICATIONS

I, Megan A. O'Donnell of 223 Trelawn Avenue, Oakville, Ontario do hereby certify that:

1. I am currently employed as Senior Geological Assistant by Homestake Mineral Development Company with offices at 201 - 856 Homer Street, Vancouver, B.C.
2. I have worked in the field of mineral exploration since 1980.
3. I am a graduate of McGill University with a B.Sc. in Geology (1984).
4. This report is based on my personal work on the property and a review of all available pertinent data.


MEGAN A. O'DONNELL

George Cooper Geologist	BSc. McMaster 1980	1662 Ralph Street N. Vancouver, B.C. V7K 1V7
Paul Plishka Geologist	BSc. Brock 1983 MSc. McGill (pending)	785 Oshawa Blvd. N. Oshawa, Ontario L1G 5V1
Karen Harrap Geologist	BSc. Queens 1983 C.E.T. Mining Engineering	27 Harfleur Rd. Agincourt, Ontario M1T 2X7
Friedrich Speidel Geologist	BSc. McGill 1984	401 Des Ormes Laval, Quebec H7X 1R4

120°50'

HORSEFLY LAKE

ARCHIE
5488 (11)



52°26'

52°26'

5000

1	2
3	2
2	2
1	2
1	1
1	2
2	2
1	2
2	2
2	2
2	2
1	2

ARCHIE # 2 FRACTION
5710 (12)

5489 (11)
ARCHIE FRACTION

4500

4000

150 0

GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,345

4000

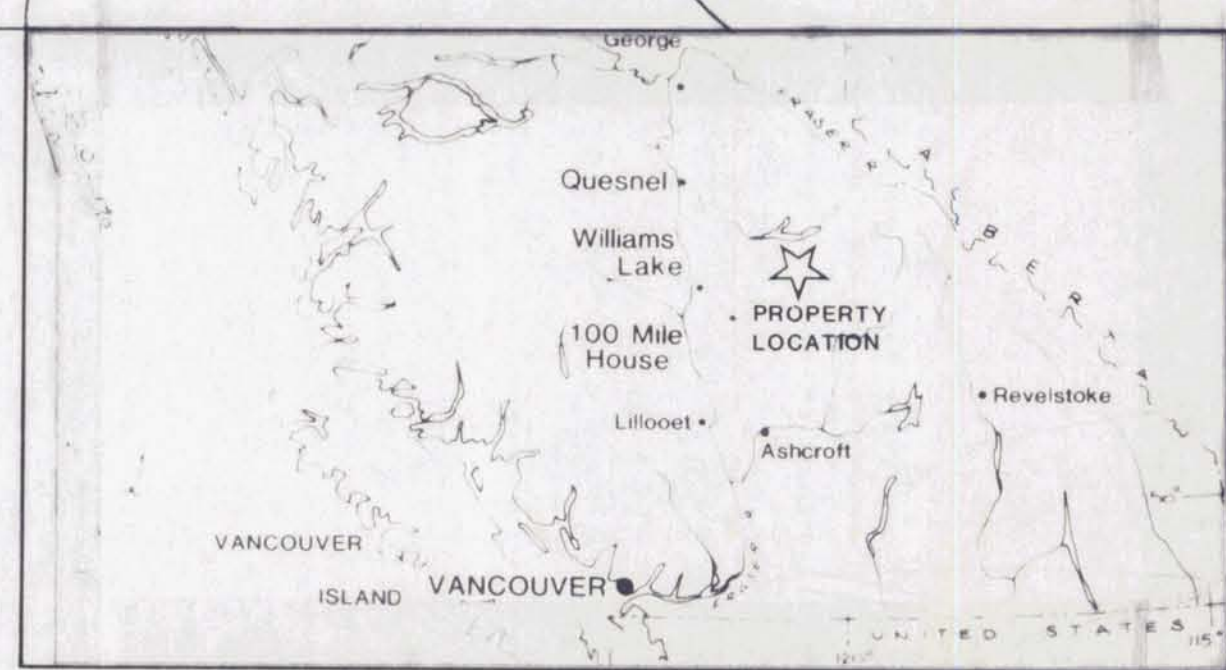
5500

5000

4500

LEGEND

- × ROCK SAMPLE LOCATION
- SOIL SAMPLE LOCATION
- STREAM SEDIMENT LOCATION
- ROAD
- LCP
- CLAIM BOUNDARY

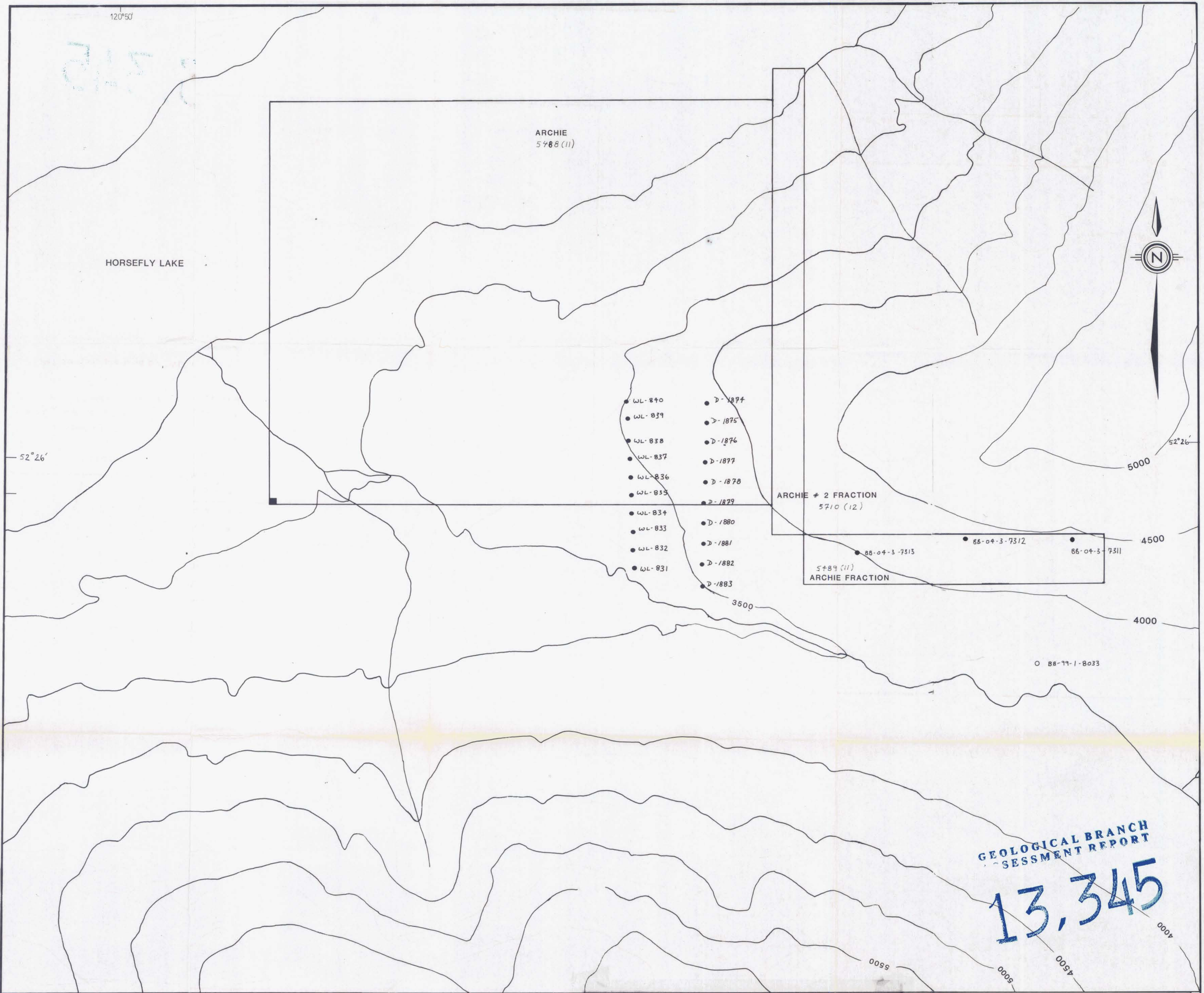


1:10,000



GOLD GEOCHEMISTRY IN PPB

HOMESTAKE			
MINERAL DEVELOPMENT COMPANY			
ARCHIE GROUP			
GOLD GEOCHEMISTRY			
CARIBOO MINING DISTRICT			
DRAWN KLH/MOD	DATE 11/84	FILE CODE 93 A/7	
REVISED			



GEOLOGICAL BRANCH
ASSESSMENT REPORT

13,345

LEGEND

- × ROCK SAMPLE LOCATION
- SOIL SAMPLE LOCATION
- STREAM SEDIMENT LOCATION
- ROAD
- LCP
- CLAIM BOUNDARY

JMT samples prefixed by "WL" or "D"



1:10,000



HOMESTAKE
MINERAL DEVELOPMENT COMPANY



ARCHIE GROUP

SAMPLE LOCATION MAP
CARIBOO MINING DISTRICT

DRAWN KLH/MOD	DATE 11/84	FILE CODE 93 A/7
REVISED		