

GEOCHEMICAL REPORT ON 25 FOR CLAIMS (50', 120' N.W.  
2 miles west of Tunkwa Lake)

FOR 1 - 18	Nos. 75838 - 75855	18
21 & 22	Nos. 75858 & 75859	2
923 10W 25	No. 75862	1
27	No. 75864	1
29	No. 75866	1
31	No. 75868	1
33	No. 75870	1
		<u>1</u>
		25

By Jules P. LaPrairie, P.Eng.

For Mastodon-Highland Bell Mines Ltd.

For work July 15 to July 24, 1969.

Vancouver, B.C.

January 23, 1970.



2184

Geochemical Report on 25 For Claims (50<sup>0</sup>, 120<sup>0</sup>N.W. 2 miles west of  
Tunkwa Lake)

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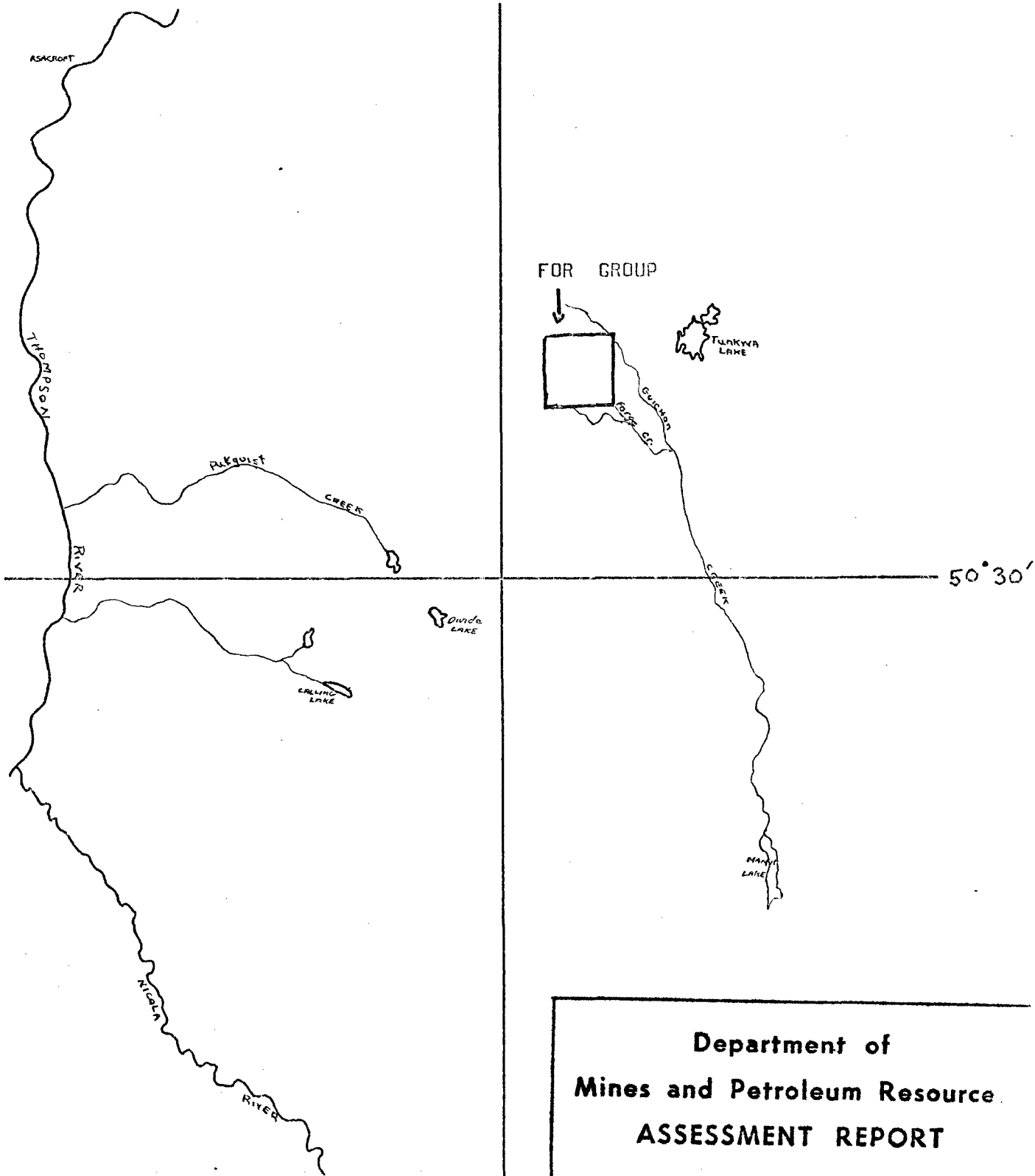
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MAP ENVELOPE

- #1 Map 1 - Aeromagnetic map of For Group 1 inch = 1 mile \_\_\_\_\_ *Rear Pocket*
- #2 Map 2 - Soil sampling - Molybdenum \_\_\_\_\_ *Rear Pocket*
- #3 Map 3 - Soil sampling - Copper \_\_\_\_\_ *Rear Pocket*

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT

NO. 2184 MAP \_\_\_\_\_



**Department of**  
**Mines and Petroleum Resource**  
**ASSESSMENT REPORT**  
 NO. 2184 MAP.....

To accompany geochemical report by  
 J. P. LaPrairie, P.Eng., on the FOR  
 Group, Tunkwa Lake, Kamloops Mining  
 Division. Jan. 23, 1970

SCALE: 1" = 4 1/2 Miles  
 121°00'

## GEOLOGY

The For Group lies close to the western margin of the composite Guichon Creek batholith. It is underlain by two phases of the intrusion as defined by Northcote (B.C. Dept. of Mines, Bulletin No. 56) and by younger volcanic rocks of the Kamloops group.

The Hybrid phase of the Guichon Creek batholith forms the periphery of the intrusion. It is predominantly quartz diorite but probably has been contaminated by pre-batholithic rock, with the result that it shows considerable variation in composition. The Hybrid phase contains a relatively larger amount of magnetite than do the other phases of the intrusion. On the basis of the aeromagnetic survey and on the limited amount of geological mapping the area underlain by Hybrid phase on the property is believed to be considerably greater than indicated by Northcote (see Map 1).

The Guichon variety of the Highland Valley phase underlies the western portion of the property. It ranges in composition from quartz diorite to granodiorite. This phase is intrusive into the Hybrid phase.

Volcanic rocks of the Kamloops group unconformably overlie the Guichon Creek batholith. These rocks were observed only in the northeastern corner of the For Group.

No significant mineral occurrences were discovered during the preliminary examination and prospecting. However, most of the bedrock is covered with glacial overburden so that geochemical and geophysical survey methods are required along with detailed geological mapping. On the basis

of known copper mineralization in the region the most favourable area lies along the north-south contact indicated by the strong magnetic gradient in the western part of the claim group. (see Map 1).

#### GEOCHEMICAL SURVEY

On July 9th, 1969, Mastodon Highland-Bell Mines Ltd. sent David A Heino and helper under the direction of J. LaPrairie, P.Eng., to the For Group of claims in the Highland Valley to do a geochemical sampling survey and to carry out preliminary prospecting.

The blazed claim lines were used as a control grid. Samples were taken on pace and compass lines 750 feet apart and at intervals of 450 feet (see Map 2 and 3). Samples were collected below the humus using a grubhoe. The soil sampled throughout the claim group is consistently of a rusty colour indicating the "B" horizon.

The samples were collected in "Caneco" high wet strength Kraft 3½" x 6" envelopes and marked with the co-ordinates of the sample location. They were shipped to the company's own geochemical laboratory in North Vancouver.

The determinations were made by Mr. D. Koop employed as a laboratory technician. Mr. Koop is a fourth year chemistry student at U.B.C.

The procedure used was to digest the samples for 9 hours in a hot perchloric acid bath followed by colorometric determinations using biquinoline for the copper and thiocyanate for the molybdenum. The values were recorded in parts per million of metal.

## RESULTS

The molybdenum determinations were either negative or too low to be of interest.

The statistical analysis of the 184 copper determinations indicate a background of less than 40 p.p.m. The contouring of those values above 40 p.p.m. indicate 3 anomalous areas.

## CONCLUSIONS

The location of the claims over the Guichon batholith, the alteration in the northern area of the claim group and the anomalous copper indications make the property worthy of further consideration.

## RECOMMENDATIONS

It is recommended that detailed geological mapping be carried out over the entire claim group. Lines should be cut at intervals of 400 feet to provide control for the mapping; these lines should be oriented east-west. Additional geochemical sampling is recommended using the same lines as the geological work. Areas of anomalous copper content should be tested by vertical-profile sampling in test pits.

The results of the geological and geochemical work will be useful in defining areas of particular interest which can be further tested by induced polarization, bulldozer trenching and diamond drilling, if warranted.

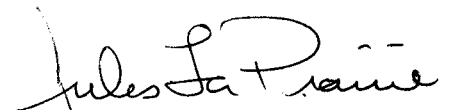
STATEMENT OF QUALIFICATIONS

I, Jules Pierre LaPrairie, am a graduate of University of Toronto, 1949, in Mining Engineering, with a BA.Sc. degree. I have been employed in the minerals industry continuously since 1949 in management, engineering and exploration.

I am a member in good standing of the Professional Engineers Association of B.C.

David A. Heinc has been associated with the mining industry for the past ten years in the following manner:

1. Three years underground as a miner;
2. Seven years in exploration doing prospecting, geochemical sampling, geophysical and geological work, and diamond drilling.

  
Jules P. LaPrairie, P.Eng.

JPL/gd

January 23, 1970.  
Vancouver, B.C.



Location: Cash Creek

Sheet:

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Material: "For" Group

Dave Heino

Lab. No.	Sample No.	Cu ppm	Pb ppm	Organic Material	Soil Color
31	X	90	2		
32	HAZ 2086	20	0		
33	2087	20	0		
34	2088	15	0		
35	2089	15	0		
36	2090	15	0		
37	2091	15	0		
38	2092	20	0		
39	2093	15	0		
40	2094	15	0		
41	2095	20	0		
42	2096	15	0		
43	2097	10	0		
44	2098	10	0		
45	2099	15	0		
46	2100	15	0		
47	2101	15	0		
48	2102	130	4		
49	2103	20	0		
50	2104	20	0		
51	2105	15	0		
52	2106	10	0		
53	2107	10	0		
54	2108	10	0		
55	2109	10	0		
56	2110	10	2		
57	2111	5	0		
58	2112	10	0		
59	2113	25	2		
60	2114	40	2		
61	2115	10	0		
62	2116	10	0		
63	2117	25	0		
64	2118	15	0		
65	2119	20	0		

Location: Cache Creek

Sheet:  
40

Material: "For" Group  
Dave Heino

Lab. No.	Sample No.	Cu ppm	Mn ppm	Organic Material	Soil Color
40 66	HAZ 2120	10	0		
67	2121	20			
68	2122	25			
69	2123	10			
70	2124	10			
71	2125	20			
72	2126	10			
73	2127	10			
74	2128	10			
75	2129	10			
76	2130	10			
77	2131	25			
78	2132	20			
	2133	15			
80	2134	15			
81	2135	15			
82	2136	15			
83	2137	15			
84	2138	10			
85	2139	10			
86	2140	20			
87	2141	10			
88	2142	15			
89	2143	15			
90	2144	10			
91	2145	15			
92	2146	10			
93	2147	15			
94	2148	15			
95	2149	15			
	2150	15			
97	2151	15			
98	2152	25			
99	2153	5			
100	2154	10			

Location: Cache Creek

Sheet:  
41

Material: "For" Group

Dave Heino

Lab. No.	Sample No.	Cu ppm	Mn ppm	Organic Material	Soil Color
AR 1	HAZ 2155	25	3		
2	2156	30	0		
3	2157	35	2		
4	2158	25	0		
5	2159	30			
6	2160	20			
7	2161	25			
8	2162	45			
9	2163	50			
10	2164	30			
11	2165	25			
12	2166	25			
13	2167	20			
	2168	20			
15	2169	20			
16	2170	190	2		
17	2171	25	0		
18	2172	25	2		
19	2173	25	0		
20	2174	25			
21	2175	20			
22	2176	20			
23	2177	25			
24	2178	25			
25	2179	140			
26	2180	30			
27	2181	20			
28	2182	20			
29	2183	30			
30	2186	30			
	2187	25			
32	2188	25			
33	2189	25			
34	2190	35			
35	2191	25			

Location: \_\_\_\_\_

Sheet:

42

Material: For Group

Lab. No.	Sample No.	Cu ppm	Mn ppm	Organic Material	Soil Color
36	HAZ 2192	25	0		
37	2193	50	1		
38	2194	35			
39	2195	25			
40	2196	25			
41	2197	25			
42	2198	35			
43	2199	90			
44	2200	50			
45	2201	20			
46	2202	35			
47	2203	20			
48	2204	20			
	2205	20			
50	2206	20			
51	2207	25			
52	2208	25			
53	2209	40			
54	2210	25			
55	2211	20			
56	2212 X	70			
57	2213	20			
58	2214	25			
59	2215	20			
60	2216	40			
61	2217	30			
62	2218	60			
63	2219	40			
64	2220	60			
65	2221	30			
	2222	25			
67	2223	25			
68	2224	25			
69	2225	25			
70	2226	35			

Location: \_\_\_\_\_

Sheet:

43

Material: *u. for* \_\_\_\_\_

Lab. No.	Sample No.	Cu ppm	Pb ppm	Organic Material	Soil Color
71	HAZ 2227	25	0		
72	2228	25	0		
73	2229	20	0		
74	2230	30	0		
75	2231	25	4		
76	2232	35	0		
77	2233	20	0		
78	2234	20	0		
79	2235	20	0		
80	2236	40	4		
81	2237	80	0		
82	2238	70	0		
83	2239	60	1		
84	2240	180			
85	2241	60			
86	2242	50			
87	2243	25			
88	2244	25			
89	2245	25			
90	2246	30			
91	2247	30			
92	2248	25			
93	2249	40			
94	2250	30			
95	2251	35			
96	2252	40			
97	2253	45			
98	2254	35			
99	2255	40			
100	2256	40			



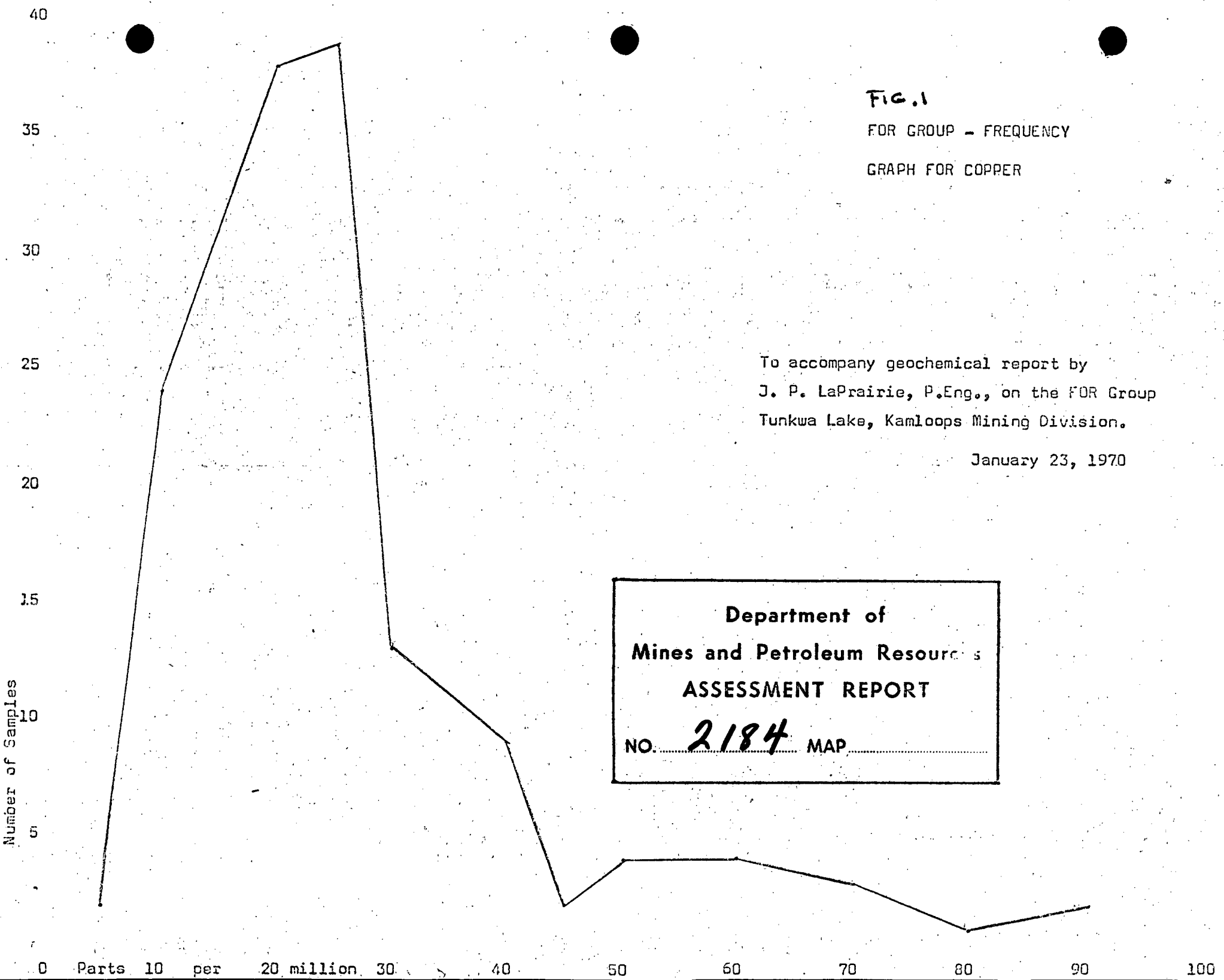


FIG. 1  
 FOR GROUP - FREQUENCY  
 GRAPH FOR COPPER

To accompany geochemical report by  
 J. P. LaPrairie, P.Eng., on the FOR Group  
 Tunkwa Lake, Kamloops Mining Division.

January 23, 1970

Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. 2184 MAP

FINANCIAL STATEMENT - 1969

<u>PERSONNEL</u>	<u>PERIOD</u>	<u>MAN DAYS</u>	<u>RATE</u>	<u>WAGES &amp; SALARIES</u>
D.A. Heino - prospector	July 15 to 24	19	\$ 40.00	\$ 760.00
R. LaPrairie - helper	July 15 to 24	19	15.00	285.00
J. LaPrairie - P.Eng.	July 22 to 23	6	100.00	<u>600.00</u>
	2 field days			1,645.00
Equipment rental				343.00
Camp supplies 40 man days @ \$7.50				300.00
Assays & soil determinations 184 @ \$2.00				368.00
Transportation of J. LaPrairie \$38 PWA Kamloops ret.				<u>38.00</u>
				2,694.00
Vancouver Office Engineering Jan. 14 to 16, 1970				
	3 days @ \$100/day			<u>300.00</u>
			Total	<u>\$2,994.00</u>

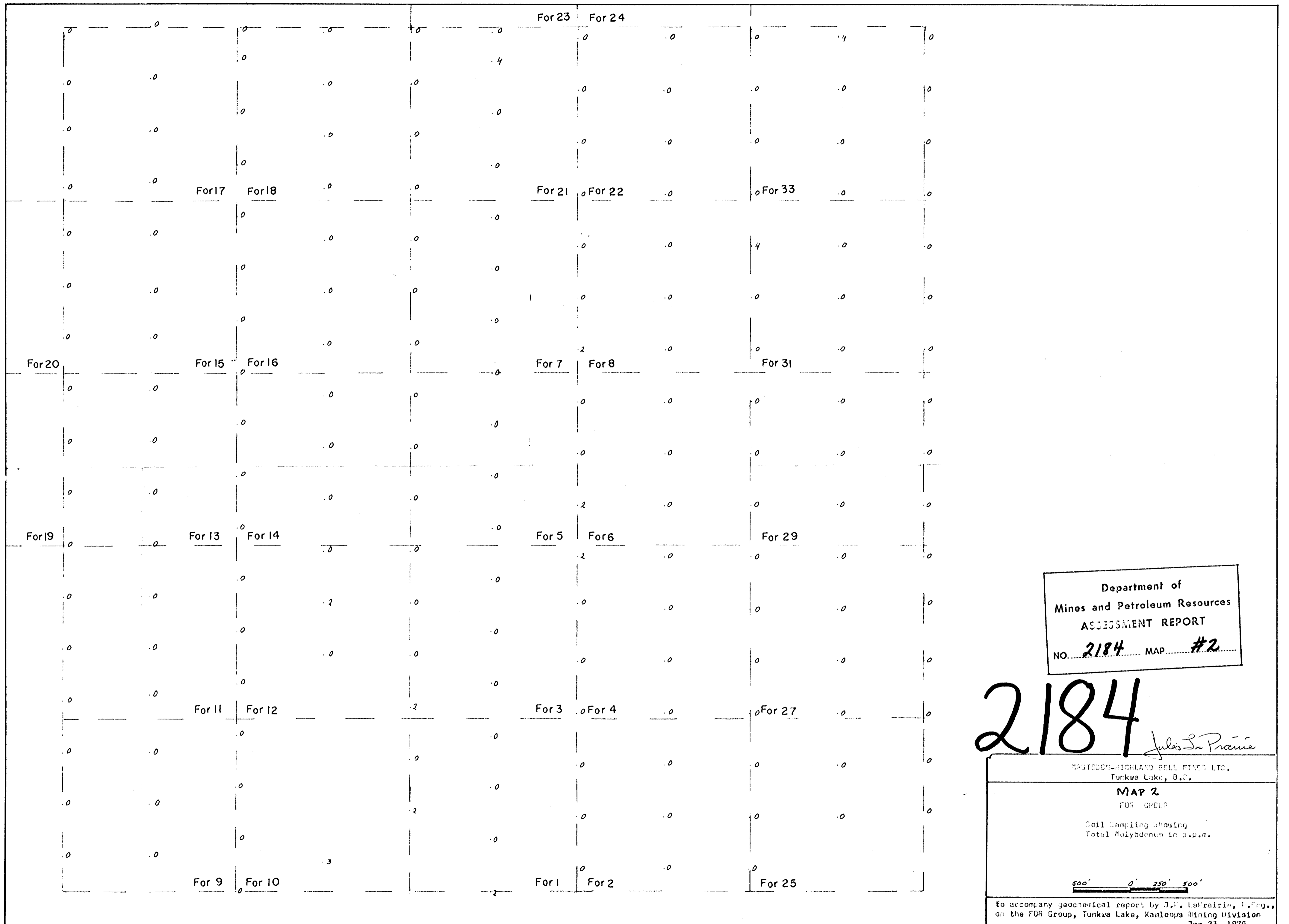
Declared before me at the *City*  
of *Vancouver*, in the  
Province of British Columbia, this *28*  
day of *Jan.* *1970*, A.D.

*Jules La Prairie*

*Juli Turner*  
A Commissioner for a special service within British Columbia or  
A Notary Public in and for the Province of British Columbia.

Sub-mining Recorder



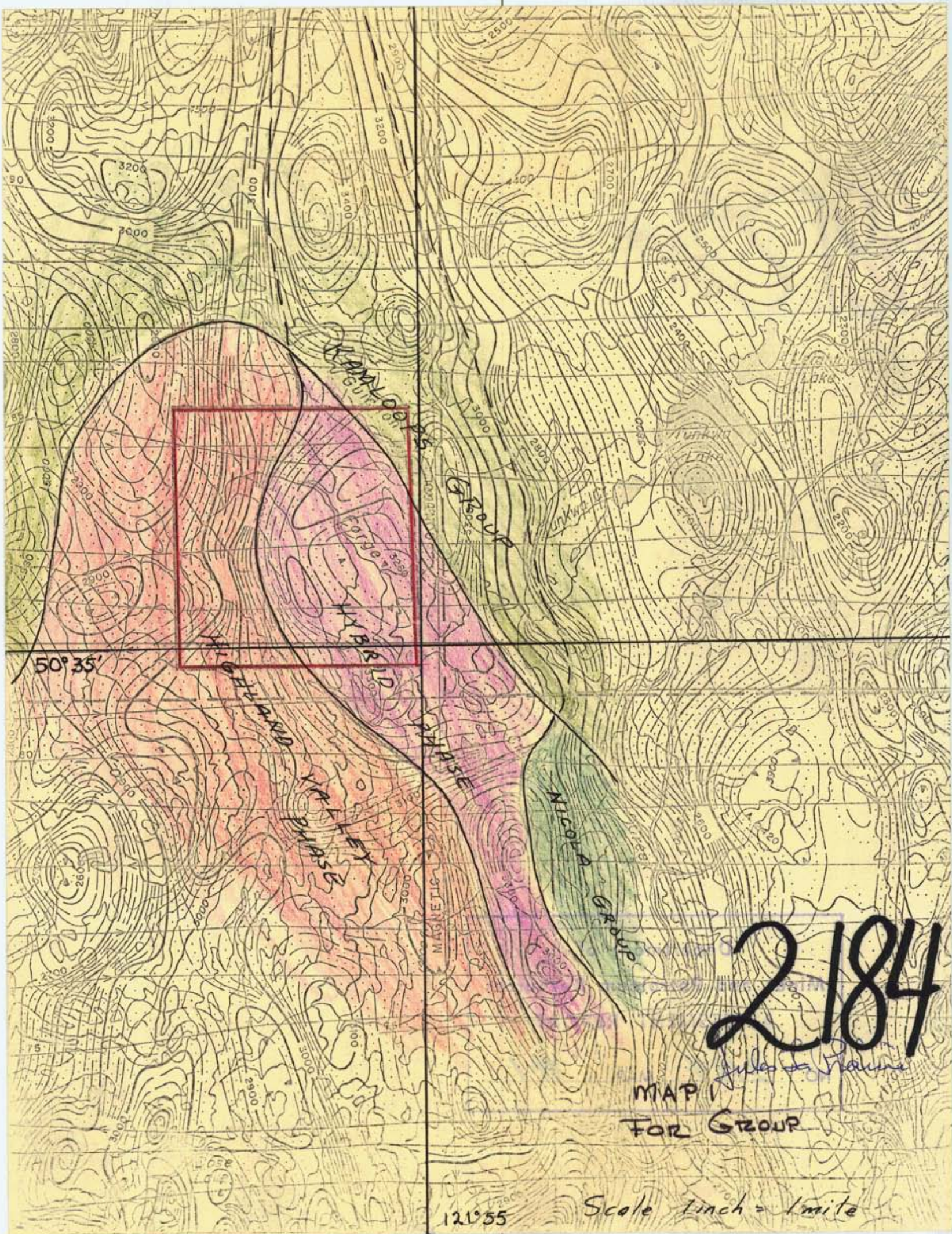


Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 2184 MAP #2

**2184**  
*Jules La Prairie*

MADDOCK-HIGHLAND BELL MINES LTD.  
Tunkwa Lake, B.C.  
**MAP 2**  
FOR GROUP  
Soil Sampling showing  
Total Molybdenum in p.p.m.  
500' 0' 250' 500'

To accompany geochemical report by J.P. LaPrairie, P.Eng.,  
on the FOR Group, Tunkwa Lake, Kamloops Mining Division  
Jan 23, 1970



50° 35'

Handwritten: KANADON  
0017

Handwritten: FOR GROUP

Handwritten: KXIB RLD

Handwritten: GHELAND

Handwritten: KXV EX  
PHASE

Handwritten: PHASE

NICOVIA GROUP

MAGNETIC

2184

MAP FOR GROUP

12155

Scale 1 inch = 1 mile



5187

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 2184 MAP #3

2184 *Julio La Prairie*

MASTODON-HIGHLAND BELL MINES LTD.  
Turkwa Lake, B.C.

**MAP 3**  
FOR GROUP

Soil Sampling Showing  
Total Copper in p.p.m.

Yellow	50 - 80
Orange	80 - 90
Red	90 - over

500' 0' 350' 500'

To accompany geochemical report by J.P. LaPrairie, P.Eng.,  
on the FOR Group, Turkwa Lake, Kamloops Mining Division,  
Jan. 23, 1970.