LONG LAC MINERAL EXPLORATION LIMITED

SUITE 1680 - 1050 WEST PENDER STREET
VANCOUVER. B.C. V6E 3S7
(604) 685-0531

GEOCHEMICAL and GEOPHYSICAL REPORT

MA Claims,#1 - #3, Francois Lake Area

22.5 Kilometres S.S.E. of Burns Lake,B.C.

Omineca Mining Division
93 k/4

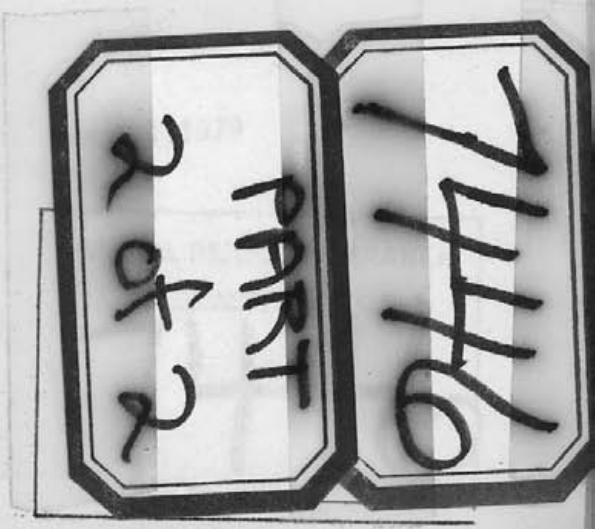
Latitude: 54 - 03

Longitude: 125 - 40

Owner: Long Lac Mineral Exploration Ltd.

Operator: Long Lac Mineral Exploration Ltd.

R.S. Pegg, BASc.
Long Lac Mineral Exploration Ltd.
#1680 - 1050 West Pender,
Vancouver, B.C.
V6E 3S7



'79-#342-#

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July 1,1979

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Introduction

The following report is on a Geochemical and Geophysical Survey over the MA group of claims (54 units) Francois Lake area, Burns Lake, B.C. This report was written by Rex Pegg under the supervision of Mr. John Hogan, P. Eng. for Long Lac Mineral Exploration Ltd.

Location

The claim group is situated approximately 22.5 kilometres S.S.E. of Burns Lake, at latitude 54° - 03' and longitude 125° - 40' on map 93K/4, Edition 2MCE, Series A721.

Access

A dirt, all weather road, which is approximately 1-500 metres south of the claims, runs along the north shore of Francois Lake and several old, rough roads traverse through the claims (see geochemical maps, in pocket). The best access to the property is by foot from the main road.

Previous Work

In the late 1940's Western Gypsum Products Ltd. worked the Francois, Francois No.2 and Francois Fraction claims (L6946,L6948 and L6947) for perlite. Several pits were found within the MA claims and it is assumed that this work was done by Western Gypsum Products Ltd. in their search for perlite.

General Geology and Topography

The major rock types in the area are shallow to meduim dipping, devitrified (in part), banded rhyolites, rhyolites breccias spherulitic rhyolites and tuffs. J. E. Armstrong (1946) mapped the claim area as Eocene or Oligocene acid volcanics with minor basic volcanics (map 907A). Recent mapping(Preliminary Map No.11: Buck Creek Area) to the west by Dr. B. N. Church of the B.C.D.M. has revealed large differences in the determination of rock types and the evaluation of their ages. It is assumed that the rocks exposed within the MA group of claims are of Tertiary age, due to the presence of the perlite.

The topography is fairly "gentle" (maximum relief of 213 metres), although there are a few cliffs. The land is mostly wooded, with several swamps and "windfall" areas, but "open" fields are prevalent in the western portion of MA#2.


INDEX MAP
MA#1
MA#2
MA#3
KEUY RD.
TCHESINKUT
LAKE
BURNS LAKE
PROVINCIAL
FRANCOIS
LAKE
T RANGE 6
RANGE 4
125°-10'
54°-03'
Scale 1:50,000 Échelle
Miles 1 0 2 3 Miles
Metres 1000 0 1000 2000 3000 4000 Mètres
Yards 1000 0 1000 2000 3000 4000 Verges

Work Completed

Mr. Alan Weston and the writer completed a geochemical survey around the perimeter of MA#1 and #2 and a scintiliometer survey around the perimeter of MA#1 during yhe period of July 7 - 11, 1978. A total of 146 geochemical samples were taken. In MA#1 there were 58 soils, 1 silt and 1 rock for a total of 60 samples while there were 86 soils taken in MA#2. The scintiliometer survey covered 9,000 metres.

Mr. Alan Weston and the writer completed geochemical and geophysical surveys around the perimeter of MA#3 and did minor detailed work on MA#1 during the period of July 29 - 31, 1978. A total of41 samples were taken, including 39 soils in MA#3 (39 samples) and 2 silts in MA#1. The scintiliometer survey covered 4,780 metres.

Mr. Pat Coyle and the writer completed line cutting, geophysical and geochemical surveys within MA#1 and #3 during the period of September 14 - 26, 1978. A total of 16,360 metres were cut, blazed and flagged; including 9,000 metres within MA#1 and 7,360 metres within MA#3. There were 74 geochemical samples taken including 47 soils and 1 rock (total of 48) within MA#1 and 19 soils and 7 rocks (total of 26) within MA#3. The scintillometer survey covered 10,210 metres.

The scintillometer survey was carried out by the writer along the perimeters of MA#1 and #3 and some of the east-west cut lines within MA#1 and #3. Readings were taken at intervals of 50 metres.

Sampled Soil Horizon

The soil horizons were usually very poorly developed and most samples contained varying amounts of clay (0 - 80%). Numerous samples also contained varying amounts of organic material. The soils are also transported, thus making soil geochemistry even more unreliable in this area.

Rock and Stream Sampling

Rock samples were chipped from outcrops at the station locations (approximate interval of 50 metres) while the silt samples were taken from the active part of the stream with the use of hand and shovel.

Sample Preparation and Laboratory Analysis

Bondar - Clegg and Company Ltd. of Vancouver treated the samples. The samples

were dried in infra-red driers and sieved to - 80 mesh.

Analytical procedures are as follows:

1) weighed on 0.5 gm.
2) digested in concentrated HNO_3 for three hours
3) bulked to 20% acid concentration and homogenized
4) allowed one hour settling time
5) analysed by reflectance fluorimetry
6) permanently recorded on chart paper

Scintrex B.G.S.-1SL
Non-discriminating

Summary and Conclusions

The scintillometer survey revealed nothing significant; increases in areas of outcrop and boulders, as expected. The soil geochemistry also revealed nothing significant although there were numerous anomalous soil samples. There were fourteen samples in the 6 to 15 ppm. range but this includes eleven samples which contained varying amounts of organic material which would leave these results somewhat suspect. There are three samples within MA#1(L5N 13.0 w, 14.0W and east boundary 27.0N), five within MA#2 (west boundary 14.0S, 15.0S, 16.0S and 18.0S and north boundary 11.0W) and two samples in MA#3 (east boundary 5.0S, 22.0S). There were four samples (south boundary 8.0W, 9.0W, 10.0W) in MA#2 that are anomalous and contain a trace to no organic material. These anomalous have not been followed up, to date.

The stream sediment geochemistry gave the significant results with respect to uranium present. The small stream on the south boundary of MA#1 at 11±33E initially had a result of 680 ppm. uranuim. Follow-up work proved more significant. A replicate of the initial sample had a result of 700 ppm. U. while the sample taken fifty feet upstream at the start of the stream (a spring and/or seepage), gave 1400 ppm. uranium(466 times threshold)Soils around the later sample were not anomalous but a soil taken in a pit (60 cm. deep) beside the silt sample was anomalous.(29ppm.U.)

In conclusion, the only significant results were obtained in the stream sediment geochemistry within MA#1. The magnitude of these results, alone, indicate that further work should be done on this property since they could be a result of seepage from a buried uranium occurrence.

Respectfully submitted,

Rex Pegg

Rex S. Pegg, BASc.

Long Lac Mineral Exploration Ltd.

APPENDICES

Appendix 1

Statement of Qualifications

Mr. John Hogan : BASc., P. Eng.

Mr. Rex Pegg : BASc. (University of Toronto, 1976)

1977-1979	LONG LAC MINERAL EXPLORATION LTD. geological engineer in B.C. doing geochemical and geologic reconnaissance and detail work.
1976 Winter	WILLROY MINES LTD. mine geologist at Willroy Mines, Manitouwadge, Ont. doing geological mapping, sampling, core logging, compilation and drafting.
1976 Summer	UNITED KENO EXPLORATION LTD. geological party chief in the Mayo area, Yukon looking for base and precious metals using geological reconnaissance and geochemistry.
1975 Summer	LITTLE LONG LAC MINES LTD. geological assistant in the Bathurst Trench area, N.W.T. looking for uranium, gold and base metals using geophysics (scintillometers, Mag., E.M.) geological reconnaissance, staking and geochemical sampling.
1974 Summer	MATTAGAMI LAKE MINES LTD. geological assistant in Ontario looking for base metals using geological mapping and geochemical sampling.
1974 Winter	LITTLE LONG LAC MINES LTD. geophysics (V.L.F.) near Sturgeon Lake, Ont.
1973 Summer	DOME EXPLORATION LTD. geological assistant in B.C., Manitoba, Ont. and Quebec, looking for gold, base metals, using prospecting, trenching and geochemistry.
1973 Winter	TOM GLEDHILL AND ASSOCIATES LTD. geophysical operator in Ontario and Quebec, looking for base metals using mag., E.M. and I.P.
1972 Summer	BARYMIN EXPLORATIONS LTD. geological assistant in Quebec, looking for base metals using geochemical sampling, some mapping and prospecting.

1971 Summer CANADA TUNGSTEN MINES LTD.
geological assistant in the Yukon, N.W.T. and B.C.
looking for tungsten using geochemical sampling
(stream and rock), staking and U.V. lamping.

1969 Summer LEITCH GOLD MINES LTD.
geological assistant in Quebec, looking for
base metals using geochemistry, geophysics (E.M.
and Mag.), line cutting and staking.

1968 Summer LEITCH GOLD MINES LTD.
geological assistant in Quebec, looking for
base metals using geochemistry, geophysics
(E.M. and Mag.), line cutting and staking.

Mr. A. Weston-Student - 1.5 years of geology at Douglas College, Surrey, B.C.

1978 Summer LONG LAC MINERAL EXPLORATION LTD.
geological assistant in B.C.
doing geochemical sampling,geophysics(scint.)
,staking and line cutting.

APPENDIX 2

MA#1

a) Geochemistry

105 soils + 3 silts + 2 rocks = 110 samples

Preparation	108 x $0.35	= $37.80
Preparation	2 x $1.25	= $ 2.50
U	110 x $2.75	= $302.50
		$342.80

Company Time

A. Weston (1 day)	= $ 24.00
P. Coyle (2 days; $41/day)	= $ 82.00
R. Pegg (1 day)	= $ 45.70
	$151.70

b) Line Cutting (9,000 metres)

R. Pegg (3 days)	= $137.10
P. Coyle (3 days)	= $123.00
	$260.10

c) Geophysics (scintillometer)

R. Pegg (2 days) = $ 91.40

d) Room and Board and Travelling = $585.00

e) Cost of report (drafting, compilation, writing and printing) = $250.00

Total expenditure - $1,681.00

a) Geochemistry

86 soils

Preparation	86 x $0.35	= $30.10
U	86 x $2.75	= $236.50
		$266.60

Company Time

R. Pegg (1 day)	= $ 45.70
A. Weston (1 day)	= $ 24.00

Total costs for geochemistry = $336.30

b) Room, board and travelling = $200.00

c) Cost of report (drafting, compilation, writing and printing) = $200.00

Total expenditures = $736.30

MA#3

a) Geochemistry

	58 soils + 7 rocks	65 samples
Preparation	58 x $0.35	= $20.30
"	7 x $1.25	= $ 8.75
U	65 x $2.75	= $178.75
		$207.80

Company Time

A. Weston (1 day)	= $ 24.00
P. Coyle (2 days)	= $ 82.00
R. Pegg (1 day)	= $ 45.70
	$151.70

Total cost for the geochemistry = $359.50

b) Line cutting (7,360 metres)

R. Pegg (3 days)	= $137.10
P. Coyle (3 days)	= $123.00
	$260.10

c) Geophysics (scintillometer)

R. Pegg (2 days) = $ 91.40

d) Room, board and travelling = $845.00

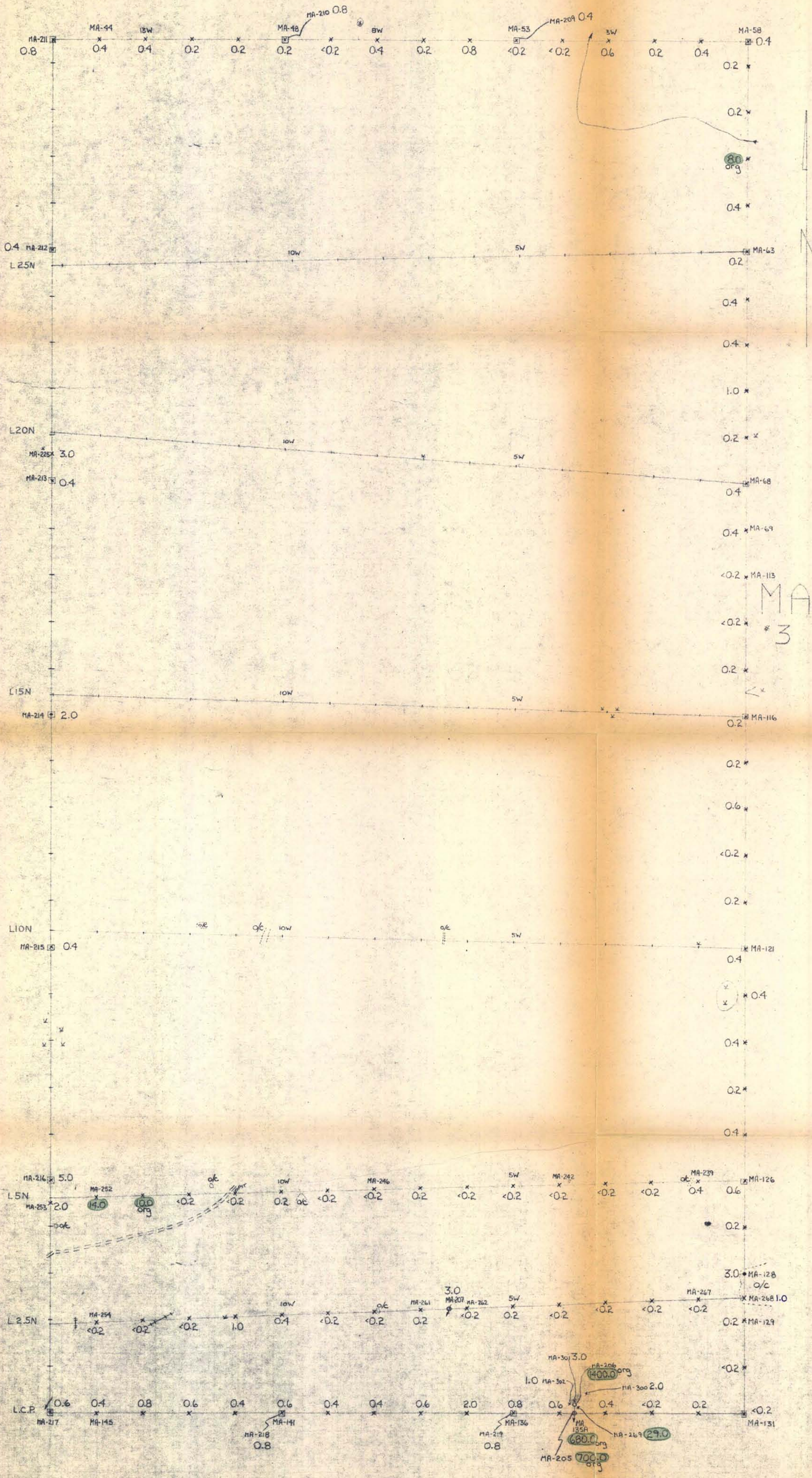
c) Report (drafting, compilation, writing and printing) = $250.00

Total expenditures = $1,806.00

APPENDIX 3

Rock Sample Descriptions

MA#128	rhyolite	MA#1 - 3N	(east boundary)
MA#214	white, devitrified rhyolite	MA#1 -15N	(west boundary)
MA#223	white, devitrified rhyolite	MA#1 -15N	(east boundary)
MA#229	white, devitrified rhyolite	MA#3 -10E	(north boundary)
MA#230	pinkish white, devitrified rhyolite	MA#3 -15E	(north boundary)
MA#234	white, altered feldspathic rock	MA#3 -20S	(east boundary)
MA#274	devitrified rhyolite	MA#3 -L5N-5.0E	
MA#296	devitrified rhyolite	MA#3 -L2.5N - 4.0E	
MA#298	devitrified rhyolite	MA#3 -L2.5N - 2.0E	



LEGEND

- Soil Sample
- Silt Sample
- Rock Sample
- Stream
- Swamp
- Road
- Trail
- org — Organic Sample
- o/c — Outcrop Area
- Anomalous Value

Threshold Values		Anomalous Values
Soils and Silts	3	≥ 6
Rocks	4	≥ 8

Staking by compass and chain.

To accompany Assesment Report by R.S. Pegg, BASc.
on the MA Claims, François Lake Area, Burns Lake
Omineca M.D.; dated July 1, 1979

MA #2

MA #3

LONG LAC MINERAL EXPLORATION LTD

GEOCHEMICAL PLAN FOR URANIUM (p.p.m.)

MA #1 CLAIM

FRANÇOIS LAKE, B.C.

DATE: June 1, 1979

REX PEGG

SCALE: 1:5,000

0 100 200 300 METRES

0 100 200 300 400 500 FEET

(1)

LEGEND

- Soil Sample
- Silt Sample
- Claim Post
- Stream
- Swamp
- Road
- Trail
- Fence
- Building
- org — Organic Sample
- Anomalous Value

N

Threshold Values		Anomalous Values
Soils and Silts	3	≥ 6
Rocks	4	≥ 8

MA #1

Staked by compass and chain

To accompany Assesment Report by R.S. Pegg, BASc. on the MA Claims, François Lake Area, Burns Lake Omineca M.D.; dated July 1, 1979

Part 2 of 3

LONG LAC MINERAL EXPLORATION LTD.

GEOCHEMICAL PLAN FOR URANIUM (p.p.m.)

MA #2 CLAIM

FRANÇOIS LAKE B.C.

DATE: June 1, 1979

Rex Pegg

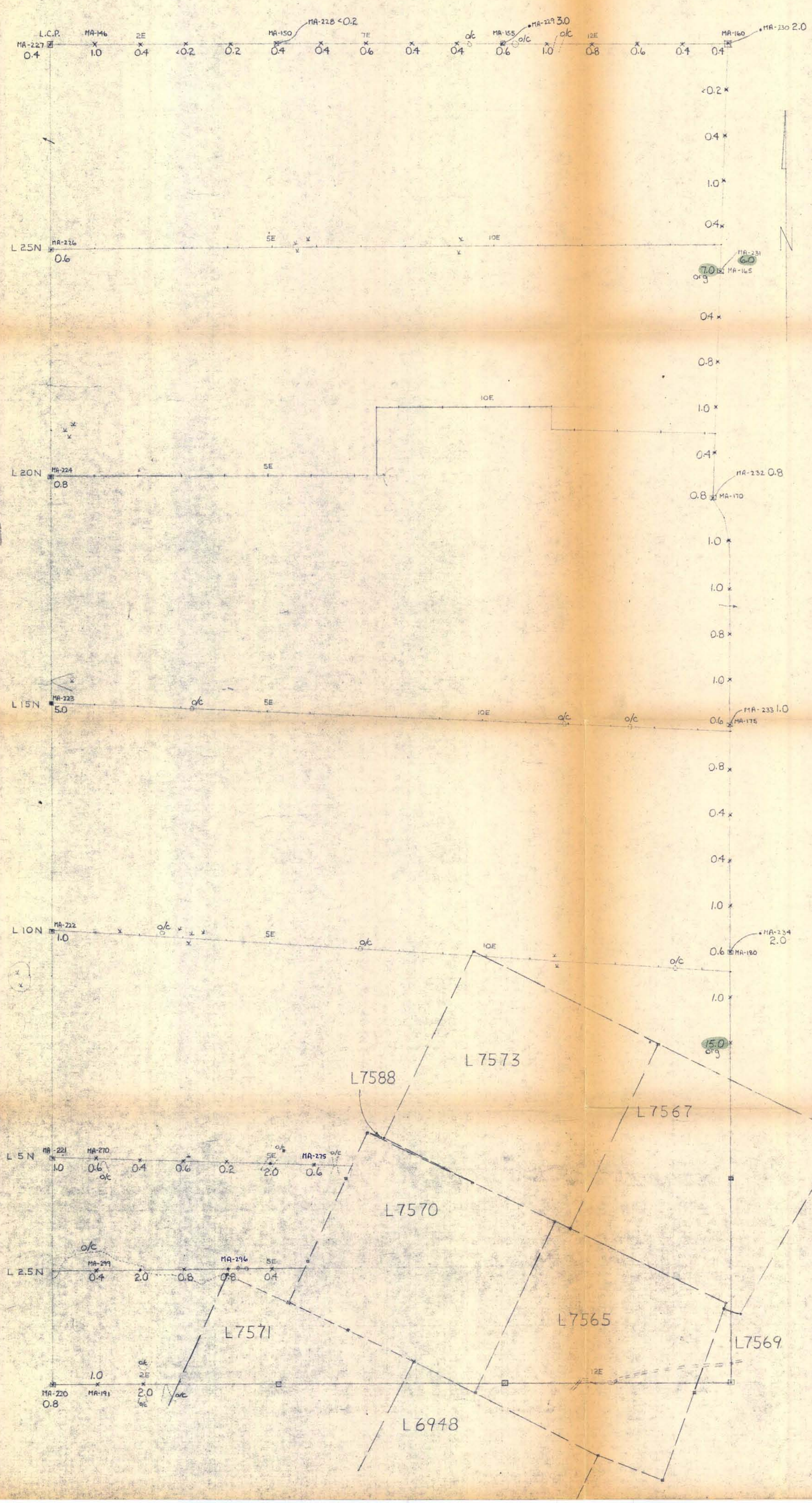
REX PEGG

SCALE: 1:5,000

0 100 200 300 METRES

0 100 200 300 400 500 FEET

(2)



LEGEND

- X — Soil Sample
- O — Silt Sample
- ● — Rock Sample
- → — Stream
- ⊻ — Swamp
- □ — Claim Post
- —·— Crown Grant Boundary
- ═══ Road
- org — Organic Sample
- o/c — Outcrop Area
- ■ — Anomalous Value

Threshold Values		Anomalous Values
Soils and Silts	3	≥ 6
Rocks	4	≥ 8

Staking by compass and chain

To accompany Assesment Report by R.S. Pegg, BASc. on the MA Claims, François Lake Area, Burns Lake, Omineca M.D.; dated July 1, 1979

Part 2 of 2

MA
#1

LONG LAC MINERAL EXPLORATION LTD.

GEOCHEMICAL PLAN FOR URANIUM (p.p.m.)

MA #3 CLAIM

FRANÇOIS LAKE, B.C.

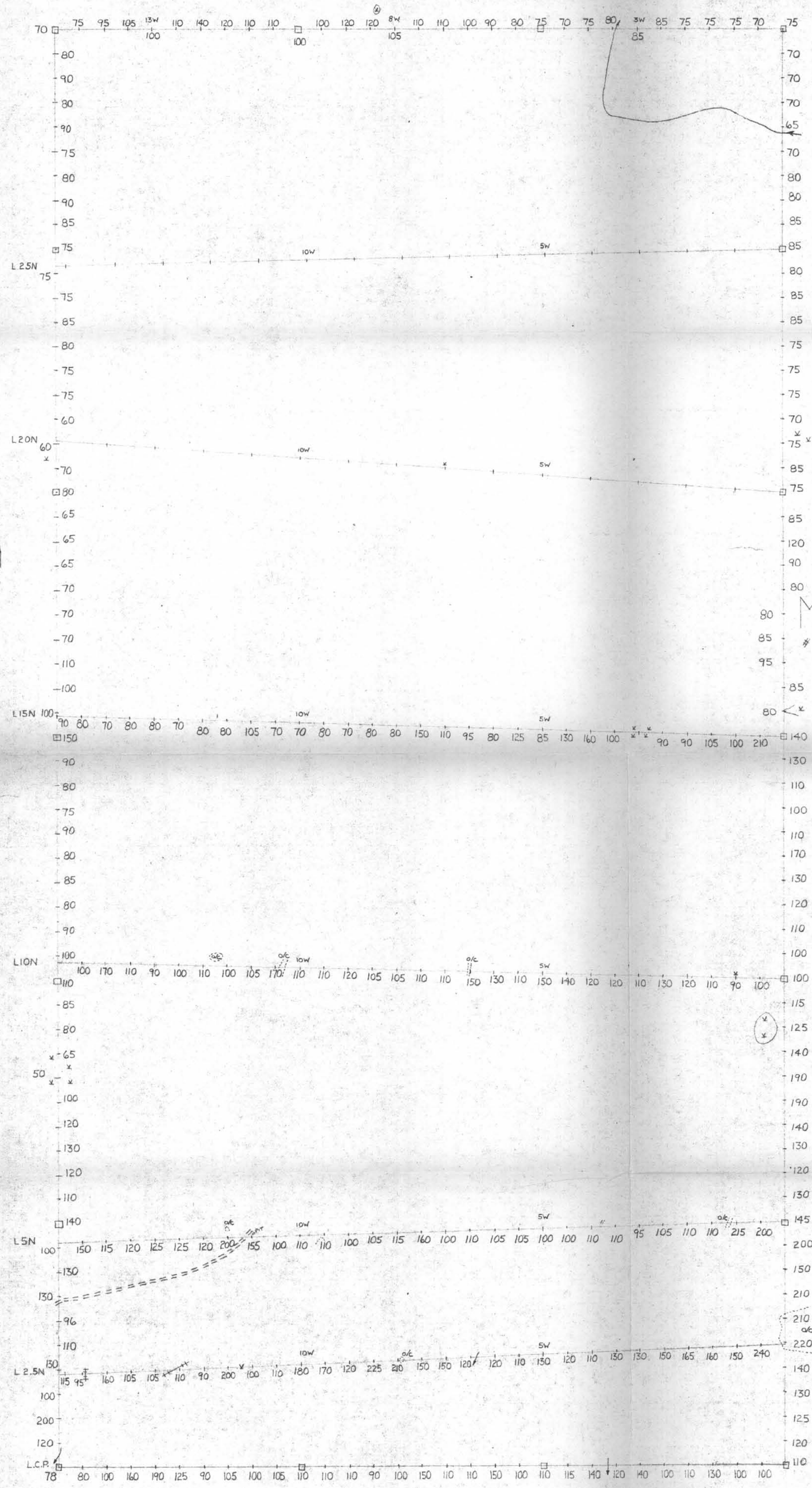
DATE: June 1, 1979

Rex Pegg
REX PEGG

SCALE: 1:5,000

0 100 200 300 METRES

0 100 200 300 400 500 FEET



LEGEND

- Scintillometer Reading (counts per second)
- Stream
- Road
- Trail
- Fence
- Claim Post
- Swamp
- o/c Outcrop Area

N

Part 2 of 2

Staking by compass and chain

To accompany Assesment Report by R.S. Pegg, BASc.
on the MA Claims, François Lake Area, Burns Lake
Omineca M.D.; dated July 1, 1979

LONG LAC MINERAL EXPLORATION LTD.

GEOPHYSICAL PLAN - SCINTILLOMETER

MA #1 CLAIM

FRANÇOIS LAKE, B.C.

DATE: June 1, 1979

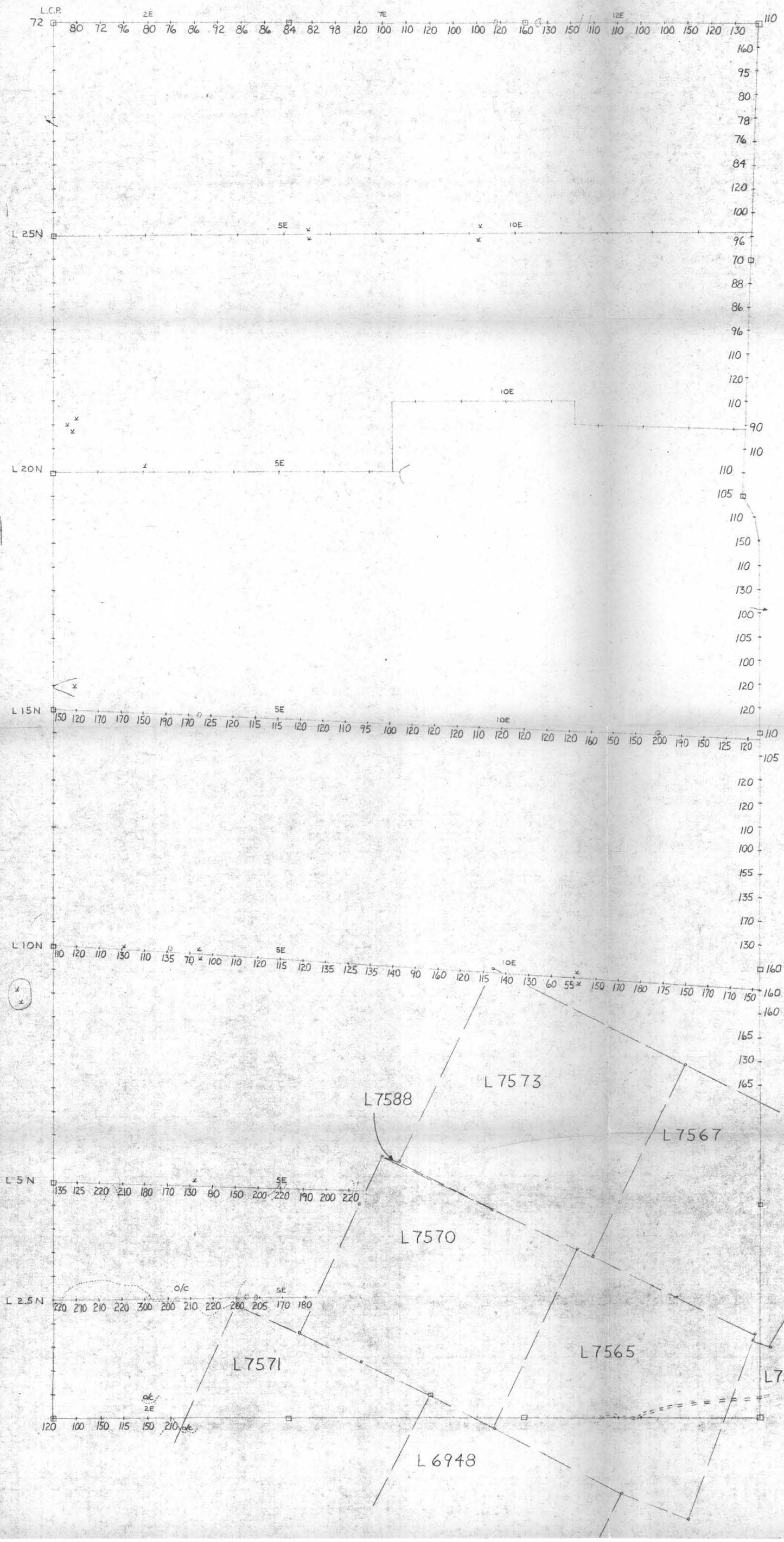
Rex Pegg

REX PEGG

SCALE: 1:5,000

0 100 200 300 METRES

0 100 200 300 400 500 FEET



LEGEND

- 100 — Scintillometer Reading (counts per second)
- Stream
- Road
- Swamp
- Claim Post
- Crown Grant Boundary
- o/c — Outcrop Area

N

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 7446 Part 2 of 2

Staked by compass and chain

To accompany Assesment Report by R.S. Pegg, BASc.
on the MA Claims, François Lake Area, Burns Lake
Omineca M.D.; dated July 1, 1979

LONG LAC MINERAL EXPLORATION LTD

GEOPHYSICAL PLAN - Scintillometer

MA #3 CLAIM

FRANÇOIS LAKE, B.C.

DATE: June 1, 1979

Rex Pegg
REX PEGG

SCALE: 1:5,000

0 100 200 300 METRES

0 100 200 300 400 500 FEET

(5)