



52C16SW0031 2.153 LITTLE TURTLE LAKE

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REPORT ON THE BLONDEAU - MERRYTH PROPERTY

TURTLE LAKE AREA

MINE CENTRE ONTARIO

OCTOBER 29, 1970

INTRODUCTION

The property consists of 34 contiguous, unpatented mining claims in the Turtle Lake area (claim map M-2433). The claim numbers are as follows:

K-203369	K-222454	K-272447
K-203370	K-222455	K-272448
K-203371	K-228598	K-242252
K-203372	K-228599	K-242253
K-203373	K-228600	K-242254
K-203374	K-228601	K-242255
K-203375	K-203167	K-242256
K-203376	K-203168	K-242257
K-222451	K-203206	K-242258
K-222452	K-203207	K-242259
K-222453	K-203208	K-242275
	K-203209	

The claims are registered in the name of Lorenzo Blondeau, whose address is McIndoe Falls, Vermont, U. S. A. 05050.

This report on the 34 claims is being submitted by W. A. Gray, 246 North Court Street, Thunder Bay North, Ontario, and is being done for Northgate

Exploration Ltd., Post Office Box 27, Toronto-Dominion Centre, Toronto 111,  
Ontario.

LOCATION & ACCESS:

The west boundary of the property lies about one mile south and one quarter of a mile east of Mine Centre station on the Canadian National Railway and extends for three and one half miles east from there.

Highway No. 11 which by-passes Atikokan and branches off highway 17, 42 miles west of Thunder Bay, passes through most of the property which makes it easily accessible both from Thunder Bay and Fort Frances which is 40 miles west.

TOPOGRAPHY:

The claim area is generally flat and swampy with very few hills. Relief is less than 50 feet. The east half of the property is covered with gravel and sand, in which grow good stands of jackpine and norway pine. The rest of the property has a fair amount of poplar and spruce with some areas of scrubby second growth.

PREVIOUS HISTORY:

The area was surveyed by Dr. A. C. Lawson in 1911 and again by Dr. T. L. Tanton in 1934. Various properties have been worked in the Mine Centre area both for gold and copper, but principally for gold. Considerable gold was produced in the early days and in its hey day, 35 to 40 companies were all at work in the area. Several carloads of copper ore were shipped to Trail B. C. from the Port Arthur Copper Mine located on patented mining claim HP 187.

A shipment assayed 3 to 3.5% copper. H. H. Woods a mining engineer shipped some copper-nickel ore from a showing on the southwest corner of Island Bay on Bad Vermillion Lake.

GENERAL GEOLOGY:

The general geology of the Mine Centre area has been described by Dr. A. C. Lawson in 1913 and by Dr. T. L. Tanton of the Geological Survey of Canada in 1935.

The rocks in the area are highly metamorphosed which makes field identification difficult. The rocks are sub-divided as follows:

1. Fine grained quartz porphyry - light coloured and altered.
2. Fine grained hornblende gabbro.
3. Rhyolite and other felsic rocks locally sheared and altered.
4. Conglomerates with granite pebbles.
5. Keewatin greenstone - andesite, tuff and agglomerates.

The area is underlain mostly by moderately to extremely sheared Keewatin Greenstones. The general strike of the formation varies from N-70-E to E-W.

On claims 242275 and 222455 an east-west trending gabbro intrusive occurs. Along the north contact of the gabbro, the Keewatin rocks are altered, silicified with numerous quartz eyes and resembles gray porphyry. This is probably due to the alteration of the andesite. This can be observed further on claim 228600 in trench No. 7 on the geological map. Agglomerates were noted at 14 + OOE and 1 + OON and at 68 + OOE and 18 + OOS.

On the north side of the highway at 40 + 00E and 5 + 00N occurs a sheared porphyry in contact with the greenstone. The rocks here are all intensely sheared and the intense shearing can be seen again 150 feet north on the new power line where the rock resembles a sericite schist.

At 52 + 00E and 12 + 00N trench No. 10 exposes an outcrop resembling altered iron formation, similar to an outcrop further east at 63 + 00E and 12 + 50N. Here the surface is quite rusty and when blasted into shows considerable pyrite and small tight folds.

A porphyry intrusion, located at 28 + 00E and 26 + 00S and 36 + 00E and 18 + 00S is a fine grained material striking N-E and is probably a continuation of the porphyry belt to the southwest.

In the map area there are very few outcrops although a continuous sort of a band extends through the area. On claim 203167 at 112 + 00E and 5 + 00S, some old pits showing chalcopyrite and pyrite in irregular quartz veins were observed. Gold assays in the order of one ounce or better were obtained.

In the process of stripping this area, a large rhyolite dike was found. It is at least 180 feet wide and contains a fair amount of fracturing and quartz-carbonate stringers. Some of these stringers carry a fair amount of chalcopyrite. There is also considerable local shearing in the dike. Towards the north side of the dike, a quartz carbonate vein having a width of 12 feet occurs, but does not have much visible mineral in it. This rhyolite is probably an intrusive rather than a flow as there are inclusions of altered greenstone that are almost totally replaced by the rhyolite. This dike warrants further investigation. Other smaller rhyolite or felsite dikes also occur in the map area.

Occasional Keewatin greenstone outcrops occur near the east boundary of the map area at 159 + 00E and 2 + 50S an outcrop of conglomerate occurs. This is the only outcrop of this rock unit that was encountered in the survey. This conglomerate is made up mostly of granite pebbles.

MINERALIZATION:

The mineralization consists mainly of pyrite and chalcopyrite associated locally with magnetite. There are indications of some sphalerite and galena in the rhyolite zone, as at 112 + 00E and 5 + 00S. There are also gold and silver values in some of the quartz veins and veinlets which may add to the value of some sections. Chalcopyrite can be seen scattered across a width of 3000 feet or more. It is widely distributed as specks throughout the map area. There is a section in the central part of the map area which carry greater amounts of chalcopyrite and magnetite.

FAULTING:

Very little faulting was observed in the map area and what was seen was of a minor nature. One minor fault was noted at 18 + 00E and 19 + 00S.

Two major faults occur in the Mine Centre area. About three quarters of a mile north of the map area, on the Little Turtle River, is the Quetico fault which extends for miles both east and west. To the south, along the Seine River, is the Seine River fault, which intersects the Quetico fault near Crilly to the east. North-south faults and north-east, south-west faults also occur in the region. Some of these could extend through the low lying sections of the map area.

TRENCHING:

With the distribution of disseminated chalcopyrite over such a wide area, it was decided to bulk sample some of the outcrops. A series of 12 trenches were put in, 11 of them more or less representing a section across 3000 feet. The No. 12 trench, as the geological map shows, is located on the rhyolite dike in a formerly trenched area.

The trench sampling was done by first blasting the surface 6 to 8 inches deep and about 4 feet wide. This eliminates most of the oxidation. Then a trench, a foot wide and a foot deep was put in. Logs chained together for a blasting mat were used to keep the rock from blowing away. The muck was then shovelled on to plywood sheets. The procedure was to put one shovelful on the sheet and throw the other shovelful away. The alternate shovelling was continued until about 50 pounds of sample, representing a sample interval of 10 to 12 feet was obtained. In excess of 700 feet of trenching has been done.

METHODS OF SURVEY:

The geological survey was performed by a crew of four men from May 25 to August 15th. An east-west baseline was established for 17,800 feet. A grid of north-south lines was cut at 400 foot intervals with chainage stations at 100 foot intervals along the picket lines. The geology and prospecting were done from these lines.

GEOCHEMICAL SURVEY:

A geochemical survey was conducted in the latter part of September by Mr. John Sullivan of Ireland. Samples were taken at 400 foot intervals.

GEOPHYSICAL SURVEY:

A ground magnetometer survey is presently being conducted and will be followed by an electromagnetic survey.

A diamond drill program will be initiated when all data is assessed.

CONCLUSIONS:

Mineralization is disseminated and scattered over a wide area, not only in the map section but in the Mine Centre area in general. It would be difficult to find other areas with so much mineralization.

Although some attempts have been made in the past to develop properties no real work has ever been done on any of them. With so much mineralization present, it would be only natural to assume that there could be an economic concentration of mineralization in the area.

When results of the bulk sampling, geochemical and geophysical surveys are all assessed and a diamond drill program initiated, it would be wise to keep in mind that if an orebody exists, it will probably be at depth. The Red Lake ore horizon was at depth. The Shebandowan property that International Nickel are now developing occurs at a depth of 700 feet. The North Coldstream orebody was about 600 feet in depth. With all these indications and with disseminated mineralization, drill holes should be put in to intersect the intended zone at a vertical depth of not less than 500 feet.

## SOIL TYPES

### BLONDEAU OPTION, MINE CENTRE

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Clays generally have minor coarser material and grade to silt. They are thought to be a fine till rather than of glaciolacustrine origin.

The sand/gravel is quite coarse in places and in the quarries is in excess of 60 ft. thick. This is probably glaciofluvial in origin.

The area is widely covered with shallow swamp underlain by humus rich clay. Very little peat occurs and is normally not more than a couple of feet thick. Trace element anomalies are almost completely geochemical confined to the clay or fine silt areas.



BIBLIOGRAPHY:

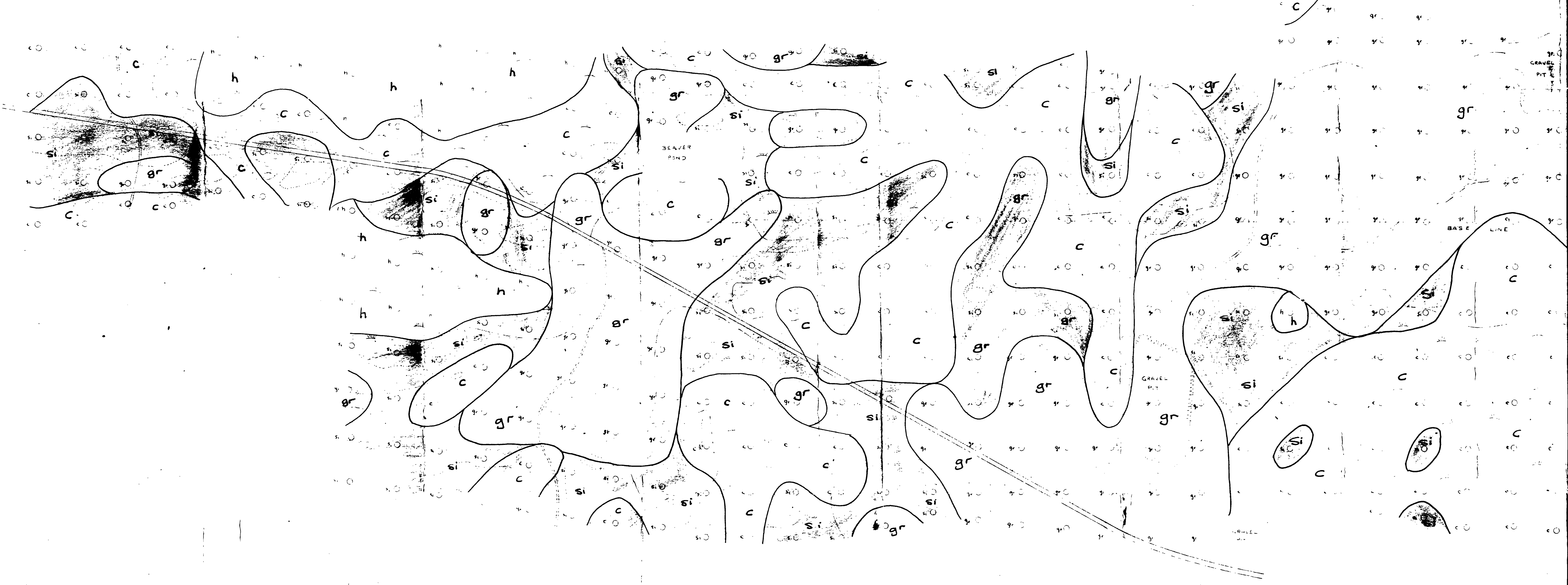
- 1915 - Lawson, A. C. - The Archean Geology of Rainy Lake  
Restudied - Memoir 40
- 1935 - Tanton, T. L.

Respectfully Submitted,

*W. A. Gray*

October 29th, 1970

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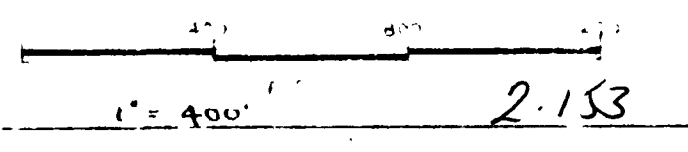
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 68+00 E  
 72+00 E  
 76+00 E  
 80+00 E  
 84+00 E  
 88+00 E  
 92+00 E  
 96+00 E  
 100+00 E

METAL VALUES PPM

SOIL TYPE	CLAY	c	
	SILT	si	
	SAND-GRAVEL	gr	
	HUMUS-PEAT	h	
	OUTCROP	b	

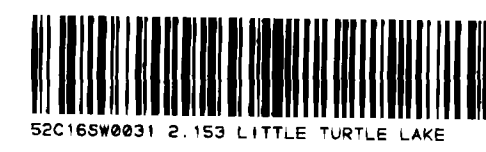
  

BACKGROUND	0	PPM
THRESHOLD	10	PPM
1ST DEGREE ANOMALY	20	PPM
2ND DEGREE ANOMALY	40	PPM



NORTHGATE EXPLORATIONS  
 BLONDEAU OPTION  
 GEOCHEMICAL PLAN  
 12+00W — 124+00E  
 SOIL TYPES

DWG. NO.



1200

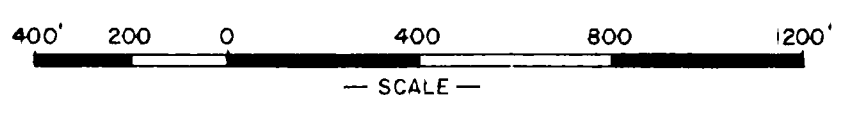
g. B. Sullivan



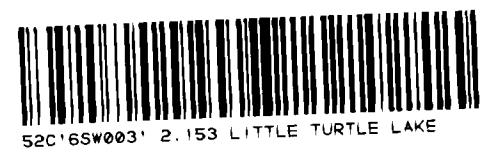
- LEGEND
- 1 ALTERED QUARTZ PORPHYRY
  - 2 HORNBLENDE GABBRO
  - 3 RHYOLITE
  - 4 CONGLOMERATE
  - 5 KEEWATIN GREENSTONE, ALTERED WITH ANDESITE - TUFF - AGGLOMERATES
- OUTCROPS SHOWN THUS WITH PATCHES OF OVERBURDEN
  - - - GEOLOGICAL BOUNDARY - ASSUMED
  - ↗ SCHISTOSITY, INCLINED - VERTICAL
  - ▭ TRENCHES - PITS
  - ▭ SWAMP
  - ▭ BUSH ROADS
  - 400' STATIONS SHOWN ON OUTSIDE LINES

# BLONDEAU - MERRYTH PROPERTY

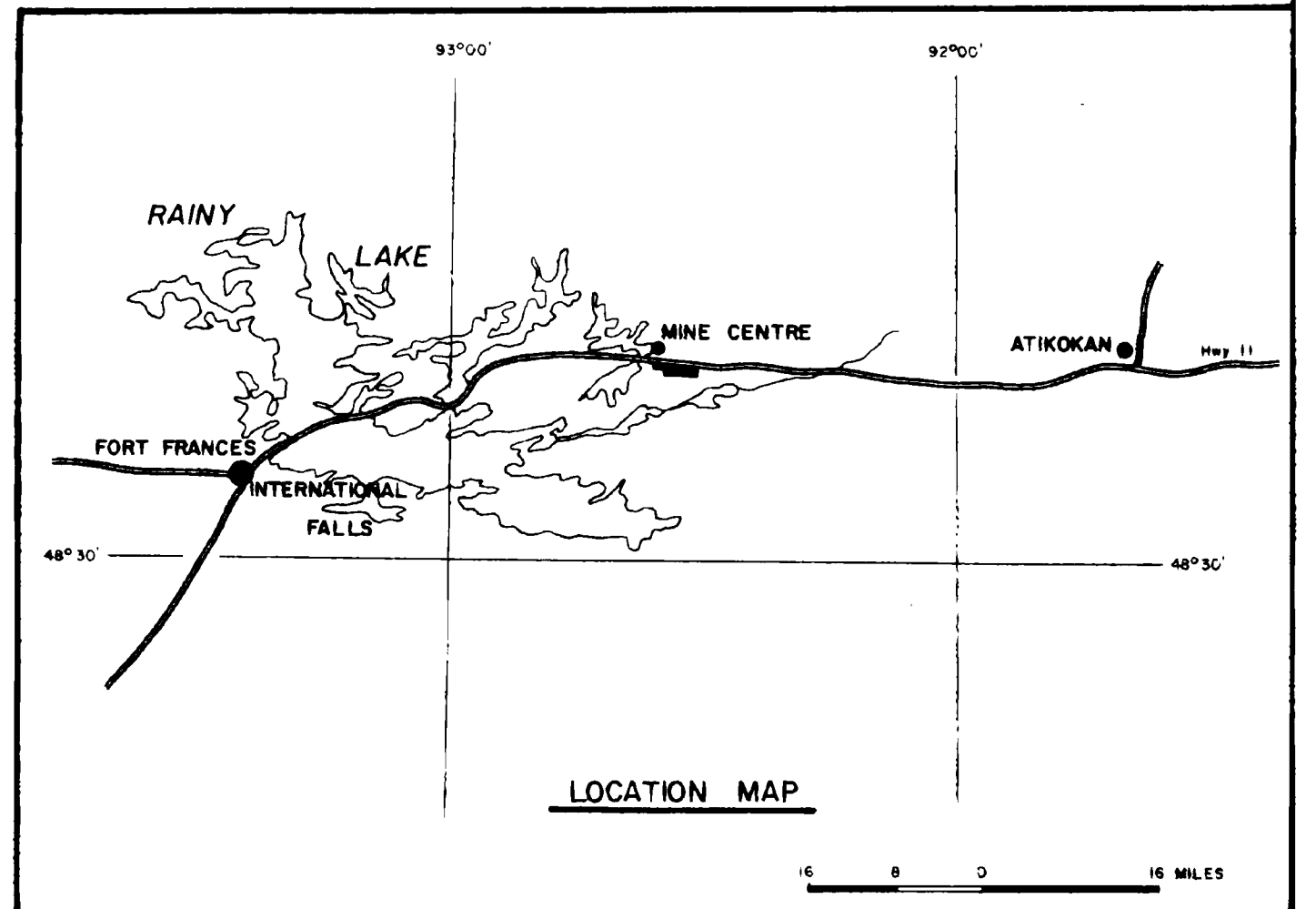
MINE CENTRE, ONTARIO



Geolog by W. A. GRAY, August 30, 1970



210



LOCATION MAP

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