

GEOLOGICAL REPORT ON THE McCOMBE GROUP,
 DRAYTON TOWNSHIP. MINNITAKI LAKE AREA
OF ONTARIO.



52J045W0031 52J045W0016A1 DRAYTON

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Area and Location:

The Wright-Hargreaves Mines McCombe Group contains thirty-one claims numbered: P.A. 11287 - P.A. 11291; P.A. 11293 - P.A. 11295; P.A. 11316 - P.A. 11324; P.A. 12654 - P.A. 12656; P.A. 11485 - P.A. 11493; P.A. 12488 and P.A. 12494.

The group is located in the East Bay of Minnitaki Lake in Drayton Township of the district of Kenora.

Access:

The claims are easily accessible by an excellent water route from Sioux Lookout, which lies some seven miles to the north west. This water route crosses Pelican, Abram and Minnitaki Lakes and the joining waters are navigable.

Preparation for Mapping Claims:

Before mapping the group the boundaries and inside claim lines were cut out and picketed at 100 foot intervals. In a similar manner twelve east-west picket lines were cut and chained.

The mapping was then carried out on a scale of 200 feet to the inch by running north-south pace and compass traverses at 100 foot intervals between picket lines and claim lines.

Physical Features:

The land claims of the group occupy a point of land striking roughly south west into Minnitaki Lake. The south west portion of the group is greatly elevated above the lake level and contains a great deal of rock exposures. The northeast portion is also high, but is for the most part occupied by an extensive sand plain with few rock outcroppings.

General Geology:

The area is totally underlain by rocks of Precambrian age, the oldest of which are the Keewatin sediments and volcanics. These underly the greater part of the area. The Keewatin volcanics consist of intermediate to basic lavas and pyroclastics followed by acid tuff and agglomerate.

The sediments consist of interbedded greywackes and slates with some conglomerate.

This belt of sediments and volcanics strikes northeast-southwest through the region and is intruded by stocks and dykes of granodiorite, granite and quartz porphyry.

It is the writers opinion that the sediments which underly the south portion of the McCombe Group are, for reasons discussed later in this report, older than the Volcanics to the north. This would suggest that the major structure is a syncline, the axis of which trends northeast through Minnitaki Lake.

Detailed Geology of the Group:

There is sufficient rock exposure in the southwest half of the McCombe Group to give a clear picture of the structure. An arrangement of the formations mapped is given in the following table:

Table of Formations:

Cenozoic -

Recent and Pleistocene:

Boulder clay, sand and gravel.

Precambrian -

Intrusives:

Quartz feldspar porphyry
Granodiorite
Quartz porphyry.

Volcanics:

Acid tuff and agglomerate.
Intermediate lava

Sediments:

Interbedded slates and greywackes.

The interbedded slates and greywackes comprise a slightly folded band underlying the southern part of the group. The bedding is very distinct and, except near its contact with the Volcanics to the north, the rock is only slightly metamorphosed.

The Volcanics lie to the north of these sediments and underly the greater part of the property. They consist mostly of fine to coarse grained andesites with disseminated cubic pyrite and magnetite. The disseminated magnetite is most abundant in a belt of the andesites which lies just north of the sedimentary contact. Distorted pillows were occasionally observed in the fine grained lavas. The agglomerates are for the most part quite distinctive but are found in small, irregular, discontinuous bands. The volcanics are highly carbonated near the sedimentary contact and along other shear zones. The carbonatization becomes less intense away from the shear zones but finely disseminated carbonates were observed in most of the volcanics on the property.

Toward the northern part of the property the Volcanics are cut by dykes and irregular intrusions of quartz porphyry and quartz-feldspar porphyry. A well defined granodiorite dyke of about 40 feet in width cuts the volcanics near the southwest end of the group. This quartz diorite dyke strikes southwest and disappears under the lake at the southwestern tip of the point.

The bedding of the sedimentary belt strikes generally S 68 W. and dips steeply to the north with the exception of minor folds. Also, in all cases where determinable, tops of the beds are to the north. Similarly in the few cases where tops of pillows were identified in the volcanics they were found to be to the north. The contact between the two is greatly obscured by shearing and carbonatization but the strike of the contact zone is quite regular and in some places this zone is less than 25 feet wide.

For the above reasons the writer believes that these sediments are older than the Volcanics and thus that both are of Keewatin age.

The property is crossed by two important shear zones - one along the contact between the sediments and volcanics and the other striking more northerly in the Volcanics. In both cases these shear zones are highly carbonated and impregnated with quartz carbonate stringers.

These carbonate zones are fairly well mineralized with fine cubic pyrite.

Economic Geology:

In the search for gold on the property, work has been confined more or less to the mineralized carbonate zones. These zones have been trenched fairly extensively by former owners and in 1948 four short X-ray drill holes were put under one of these zones on claim 11316 and 11318. The results of this drilling were not encouraging, returning a reported high of \$5.00 in gold over a very narrow width.

In 1951 the writer channel sampled three of these carbonate zones and in all took more than 225 samples from various parts of the property. The assay results from these samples were disappointing. The highest assay return was \$7.00 over a narrow width.

It has been reported that visible gold was seen in a fracture in a pyrite cube from one of the carbonate zones, but no visible gold was found by the writer. Two quartz veins were found in a shear zone crossing claims P.A. 11290 and P.A. 11294. They have an exposed length of 175 feet and a width of 1.5 feet. In places these veins are well mineralized, but of all samples taken only one selected sample proved to be auriferous assaying \$2.80 in gold.

Neepawa Island, where high values in gold have been obtained, lies approximately 4 miles to the southwest of the McCombe block. The values obtained there are from a cross fracture zone. The Ruby Island Fault which supposedly controlled this cross

fracturing trends northeastward and is assumed to cross the McCombe Group. The carbonated shear zones on the group may well have been controlled by this same fault but the cross fracture systems and values are lacking here.

Wright-Hargreaves interest in the McCombe Group of claims stemmed from the possibility that a similar system of cross fractures as are found on Neepawa Island might conceivably occur here. However the detailed mapping carried out by the Company's field staff failed to find similar conditions.

A detailed geological map, 200 feet to the inch, accompanies this report.

H. W. Marsh

H. W. Marsh, B.Sc.

References:

- (1) M. E. Hurst: "Geology of the Sioux Lookout Area"
Ontario Department of Mines,
Vol. XL1, 1932, pt. 6.
- (2) H. S. Armstrong: "Preliminary Report on Echo Township,
District of Kenora"
P.R. 1948 - 10.

October 16, 1951.

Geological Survey of the McCombe Group
of Claims, Drayton Township, Minnitaki
Lake Area, Ontario

by
Wright-Hargreaves Mines, Limited.

Time spent on the work was as follows:-

Line-cutting	237	days
Geological Surveying	165	"
Drafting	<u>15</u>	"
Total	417	"

Personnel employed in the field and relevant covering dates,
were:-

H. W. Marsh, B.S. (McGill) Chief of Party, c/o Wright-Hargreaves
Mines, Limited, Kirkland Lake, Ontario
May 18th to August 18th, 1951 (field)
Sept. 24 to October 4th, " (office)

Donald F. Sherwin, Student (U. of T.), c/o University of Toronto
May 18th to August 14th, 1951

Allan K. Webber, Student (U. of T.) 17 Scarborough Rd. Toronto
May 18th to August 18th, 1951

R. J. Schwarz, Student (U. of T.) 56 Greenside Ave. Toronto 10, Ont.
May 18th to August 14th, 1951

H. C. Shepherd, Prospector, c/o Wright-Hargreaves Mines, Limited,
Kirkland Lake, Ontario
March 22nd, to May 8th, 1951

R. A. Hammond, Prospector, c/o Wright-Hargreaves Mines, Limited,
Kirkland Lake, Ontario
March 22nd to May 18th, 1951

J. J. Harris, M. Sc. (McGill) Field Engineer, c/o Wright-Hargreaves
Mines, Limited, Kirkland Lake, Ontario.
Made 2 trips, involving 5 days, to the claims during the
summer to inspect the work done, and spent 5 days during
September in completing the geological map.

NOTE:

The time spent in the field by the prospectors (91 days excluding
Sundays) and part of the time of the student assistants (to the ex-
tent of 146 days) was required for line-cutting. The days of
work, in all cases, are figured on the basis of a six-day week.

Dr. M. E. Hurst,
Provincial Geologist,
Department of Mines,
BUILDINGS.

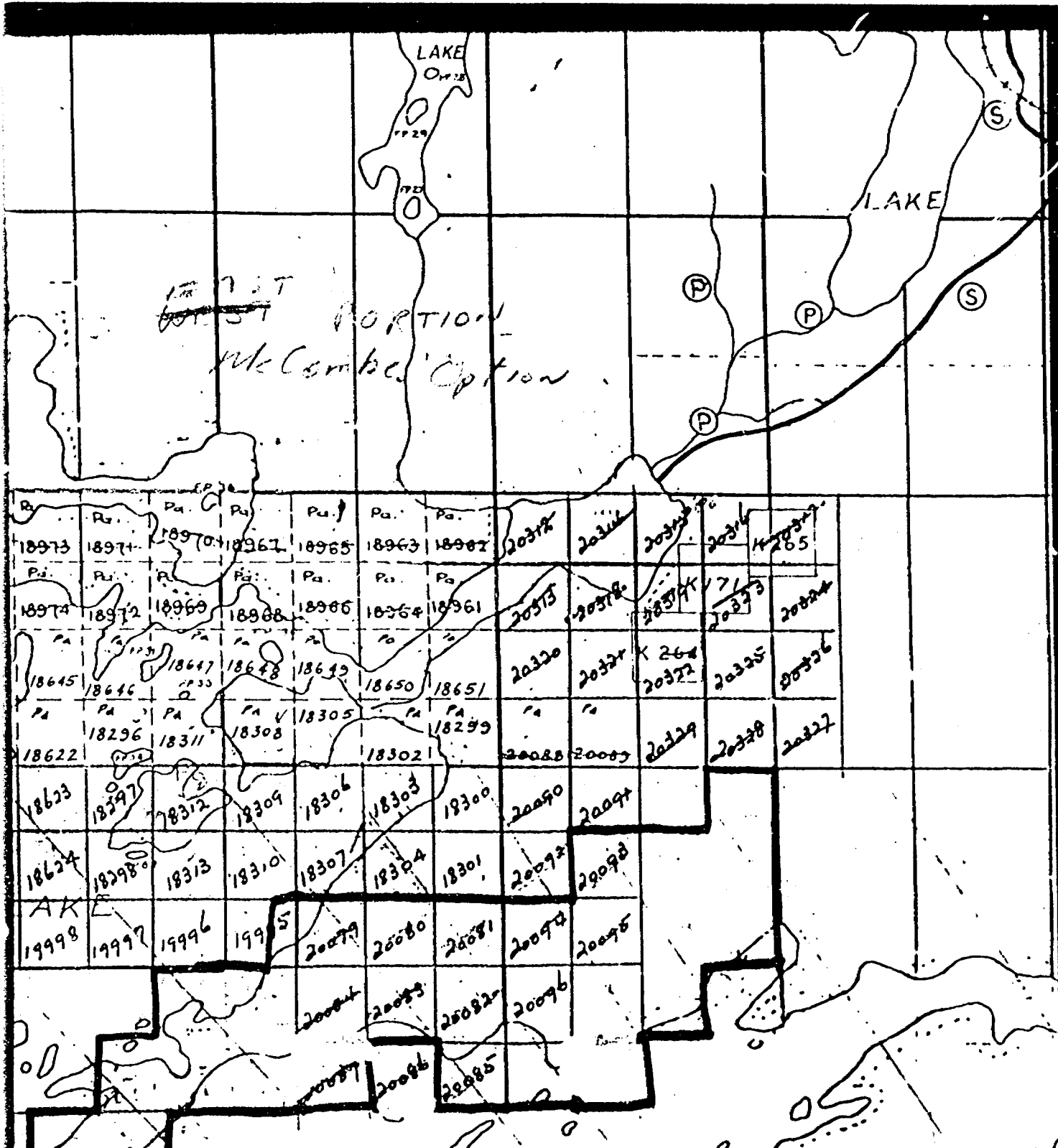
October 18th, 1951.

Herewith is a geological report submitted by Wright-Hargreaves Mines Limited and covering ~~32~~ mining claims in the Township of Drayton.

The company is asking for an assessment work credit of 40 days per claim. It is noted that the line cutting shown in the breakdown is excessive but even reducing this to 160 days there is enough total time for 40 days assessment work per claim.

RVS/AL

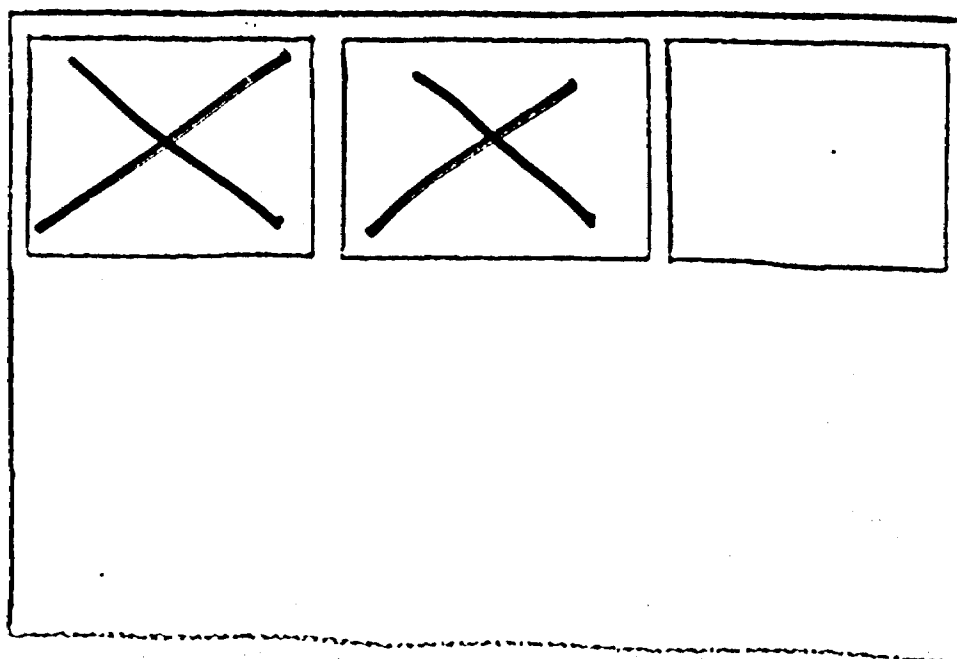
J. F. McFarland,
Chief, Mining Lands Branch.



DRAYTON TWP.
SCALE: 1" = 4000'

SEE ACCOMPANYING
MAP(S) IDENTIFIED AS
52T/04SW-0016-A1-#1

LOCATED IN THE MAP
CHANNEL IN THE FOLLOWING
SEQUENCE (X)



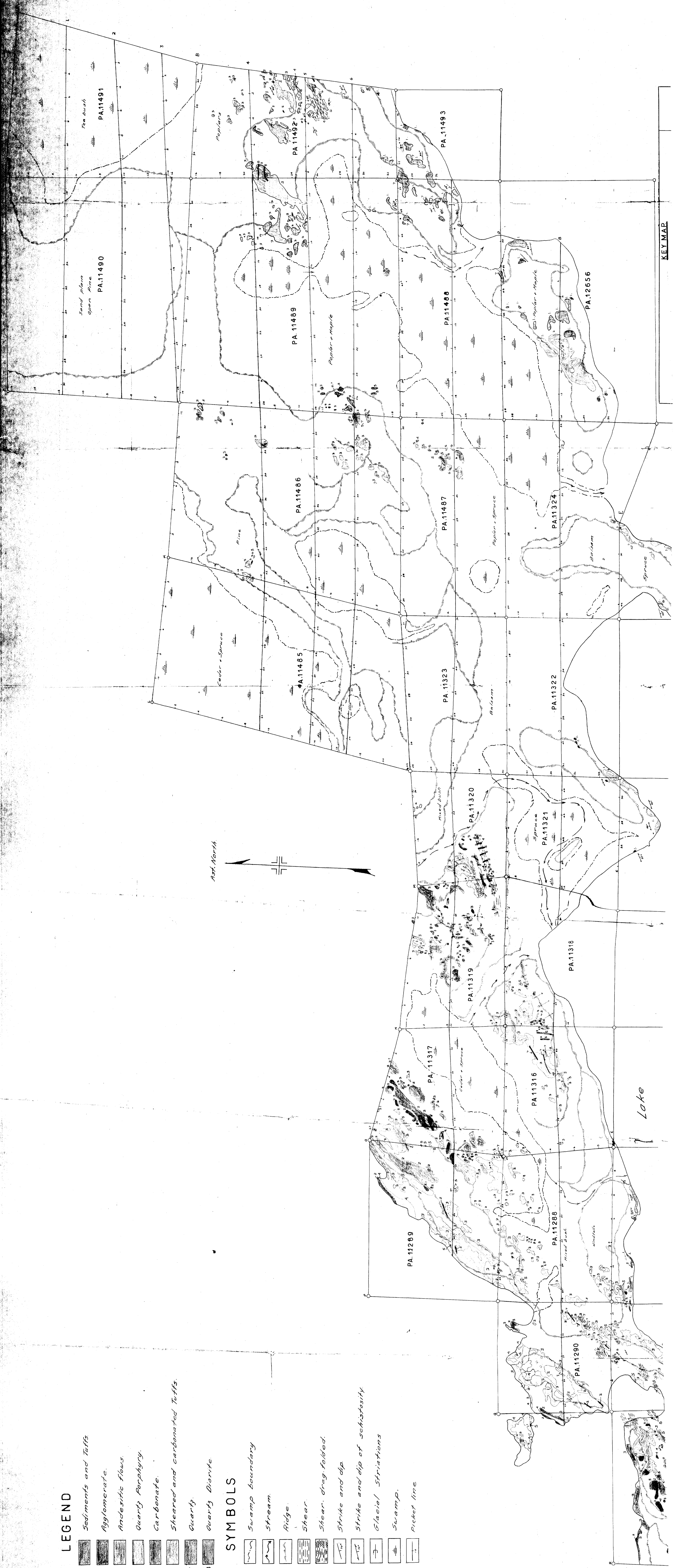
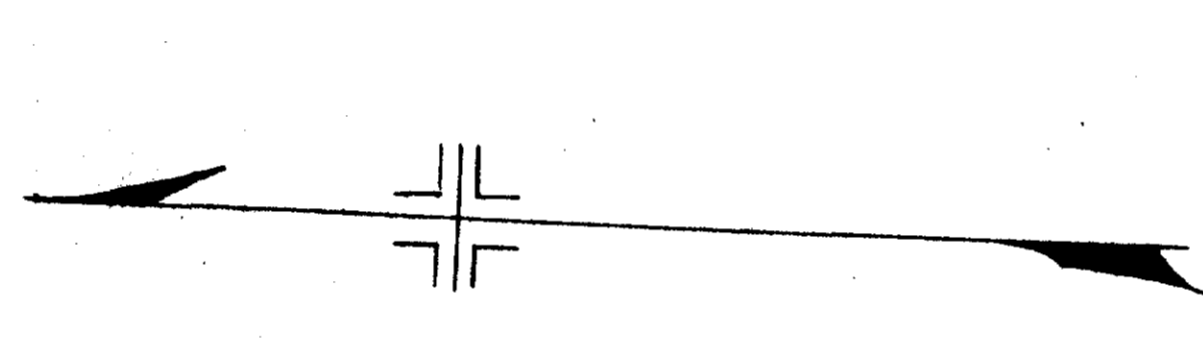
LEGEND

- 1. Sediments and Tuffs
- 2. Agglomerate
- 3. Andesitic flows
- 4. Quartz Porphyry
- 5. Carbonate
- 6. Sheared and carbonated Tuffs
- 7. Quartz
- 8. Quartz Diorite

SYMBOLS

- Swamp boundary
- Stream
- Ridge
- Shear
- Shear, drag folded
- Strike and dip
- Strike and dip of schistosity
- Glacial Striations
- Swamp
- Picket line

Act. North



KEY MAP

