



The property covered in this report is located in Yarrow Township approximately one mile to one and one half miles west and one and one half miles south of the northeast corner of the township. The trail to the property starts about one half mile west of the bridge across the Montreal River in Matachewan on Highway No. 566. The trail leaves the highway to the south across a wooden bridge along an old logging trail. This trail was cleared for about three miles with a small bulldozer so that it is possible to drive a jeep over it for that distance. A foot trail is followed for approximately one mile to reach the mineralized areas of the claims.

The owner of the property is Legacy Mines Limited, 9612 Parkman Road, Windham, Ohio, U.S.A., who is submitting this geological survey as assessment work. The survey covers two claims as follows: MR 39715 and MR 39716. The dates of the survey were from August 15, 1966 through August 27, 1966.

The formation found in the area of this survey is Precambrian of the Gowganda formation of Cobalt age. The conglomerate consists of widely scattered boulders and pebbles of syenite and granite in arkose. The area of mineralization south of the indicated fault shows argillite and fine grained greywacke along with traces of arkose. The arkose and greywacke are both medium to fine grained. The overburden is glacial drift consisting mainly of clay and boulders of grey granite. The overburden appears to be very shallow throughout most of the area.

The area appears to be cut by a fault from the northeast to the southwest. Evidence of movement along the fault cannot be found. The sediments on the north side of the indicated fault generally dip north and northeast, and the sediments on the south side generally dip east and southeast.

The work done on the area of mineralization has been trenching and pitting with 312.2 days being reported. The pitting was started on the quartz vein with six pits, and it was then extended toward the indicated fault and to the east to attempt to outline the larger area of mineralization.

The quartz vein has a width of nine (9) feet in the widest spot and varies to about four (4) feet in width. The vein can be traced for about 450 feet. The mineralization in the vein consists of chalcopyrite and bornite with alteration minerals of malachite and azurite. The area between the quartz vein and the indicated fault is highly silicified with numerous small quartz veins generally trending from northwest to southeast. This area extends to the east of the last trace of the quartz vein and has a length of 500 feet with a width up to 100 feet. It is locally mineralized with chalcopyrite and bornite. The mineralization is disseminated and is associated only with the quartz. The average assay was one percent copper and some areas show up to two percent copper.

The following person participated in this geological survey:

Gordon Micmac
Matachewan, Ontario

Norman Hanson
Matachewan, Ontario

Jack Ellet
Windhan, Ohio USA

Robert Aiken
Columbiana, Ohio USA

Line Cutting:

Gordon Micmas:	August 16, 1966	8 hours
	August 17, 1966	8 hours
	August 19, 1966	8 hours
Norman Hanson:	August 18, 1966	8 hours
	August 19, 1966	8 hours
Robert Aiken:	August 15, 1966	8 hours
	August 17, 1966	8 hours
	August 18, 1966	8 hours

Geological Mapping:

Gordon Micmac:	August 26, 1966	8 hours
Jack Ellet:	August 27, 1966	8 hours
Robert Aiken:	August 15, 1966	8 hours
	August 20, 1966	8 hours
	August 21, 1966	8 hours
	August 26, 1966	8 hours
	August 27, 1966	8 hours

Draughting and report:

Robert Aiken:	August 29, 1966	8 hours
	August 30, 1966	8 hours
	August 31, 1966	8 hours
	Sept. 1, 1966	8 hours
	Sept. 2, 1966	8 hours

Robert E. Aiken

Robert E. Aiken

Robert Aiken

Education: B.S. in Geology, Western Reserve University, Cleveland, Ohio

Experience: Exploration and mine geologist for The New Jersey Zinc Co.,
Bethlehem, Pennsylvania

The following person participated in this geological survey:
Gordon Micmac
Norman Hanson
Jack Ellet
Robert Aiken



41P15NE8493 63A.475 YARROW

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Legacy Mines Limited

REPORT ON E.M. SURVEY
OF
CLAIMS MR39715 & MR39716
YARROW TWP.

SUMMARY:

In September of 1967 parts of claims MR39715 and MR39716 were surveyed electromagnetically using a Crone J.E.M. unit. No anomalies were recorded even over known exposures and it is concluded that the mineralization present is insufficiently massive to be conductive.

PROPERTY:

The claims form part of a group which is located in Yarrow Twp. near Matachewan. Specifically they lie about $\frac{1}{4}$ mile east of the south end of Mudpack Lake.

ACCESS:

Access may be attained by tractor road south from Hwy. 566 or alternately by foot path from the Montreal River which lies approximately two miles east.

GEOLOGY:

The area is underlain by Cobalt sediments, mostly argillites and conglomerate, having a reddish to grey colour. Exposures are numerous and dips are generally easterly to southerly with local exceptions. The trenches on MR39715 expose a mineralized quartz vein and a parallelling mineralized breccia with quartz and carbonate cementing.

LINE SYSTEM:

Control of the survey was by use of a base line (Az 59 degrees) and a system of normal cross lines at 300 ft. intervals. Surveying was done using 100 ft. stations on these cross lines.

EQUIPMENT & OPERATION:

A Crone J.E.M. dual frequency electromagnetic unit was used. It consists of two coils each of which is able to transmit and receive signals from the other. The coils were operated from stations 200 and 300 ft. apart along the same line and readings plotted represent an arithmetical average of the readings obtained at the two coils and plotted midway between the coils. Frequencies available are

1800 cps (high frequency) and 480 cps (low frequency). Upon completion of the readings from one pair of stations, each of the two operators normally moves another 100 ft. along the line to the next station. In the case of anomalous readings being obtained intermediate positions between stations may be occupied and read for greater detail.

An anomaly under relatively shallow overburden such as occurs on the claims herein discussed would normally consist of positive readings over the conductor with negative readings flanking. Reading errors can normally run to plus or minus 2 degrees of amplitude and anomalous patterns of less than 3-4 degrees are not usually considered important.

SURVEY RESULTS:

Results of the work are presented on an accompanying map. All readings taken were high frequency and most of the survey was done at a transmitter (Tx) to receiver (Rx) separation of 200 ft. due to the rough topography. Lines 18 and 21 were also read at Tx-Rx = 300 ft.

No anomalies were detected even over the trenches which show some disseminated sulphide mineralization.

The readings themselves were sharp and clear indicating a lack of any great thickness of overlying conductive overburden.

CONCLUSIONS:

The mineralization exposed in the trenches is apparently too weak and disseminated to act as a conductor. The numerous visible rock exposures and sharpness of readings give evidence that the survey tested bedrock.

Respectfully submitted,



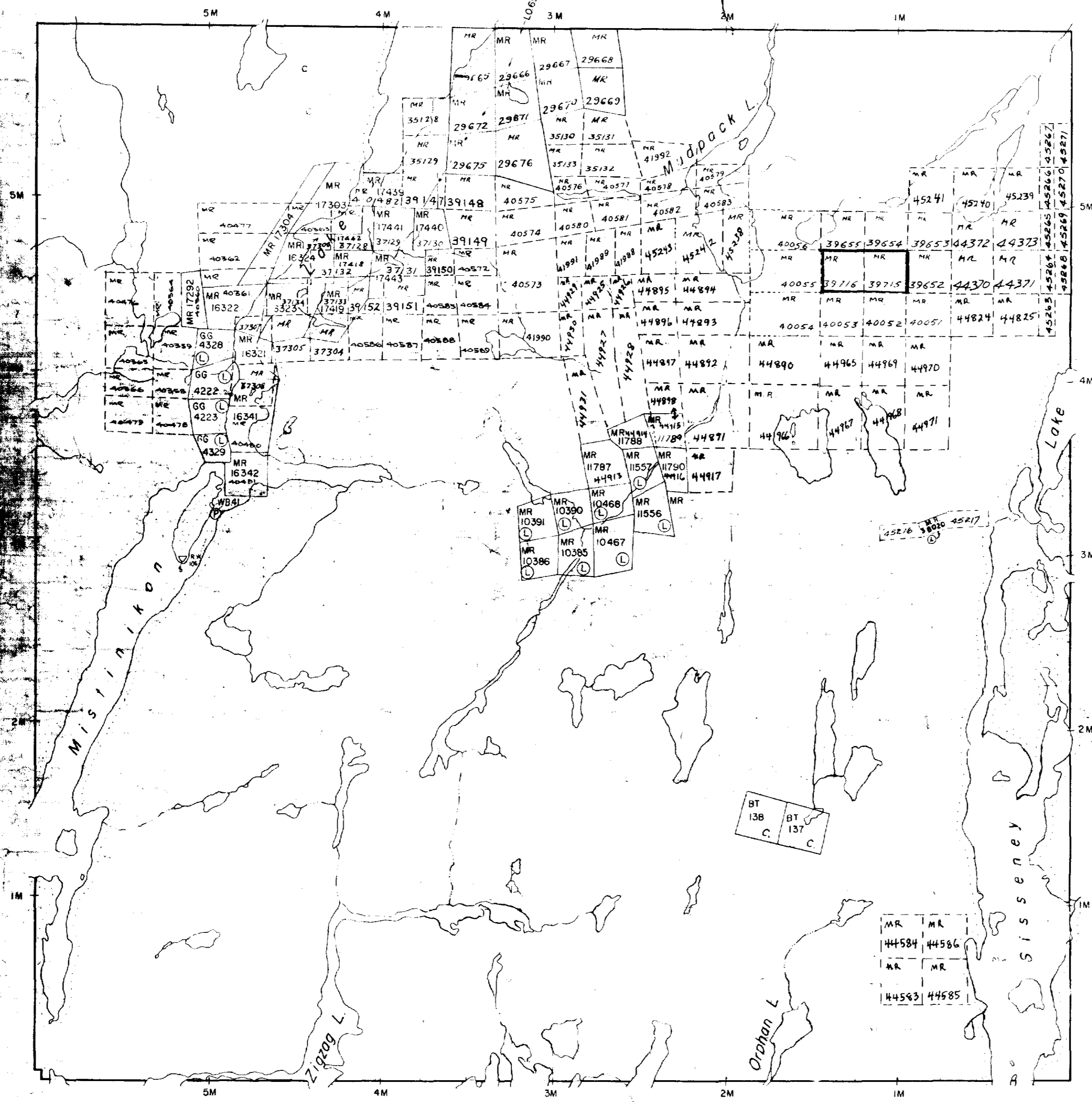
L.G. Hobbs, P. Eng.

LGH/eh
Attach.

November 1967.

W-590
085 M

Powell Twp.



Morel Twp.

THE TOWNSHIP
OF
YARROW

DISTRICT OF
TIMISKAMING
MONTREAL RIVER
MINING DIVISION

SCALE: 1-INCH=40 CHAINS

LEGEND

PATENTED LAND	Ⓟ
CROWN LAND SALE	C.S.
LEASES	Ⓛ
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	—
IMPROVED ROADS	—
KING'S HIGHWAYS	—
RAILWAYS	—
POWER LINES	—
MARSH OR MUSKEG	—
MINES	Ⓜ
CANCELLED	C.

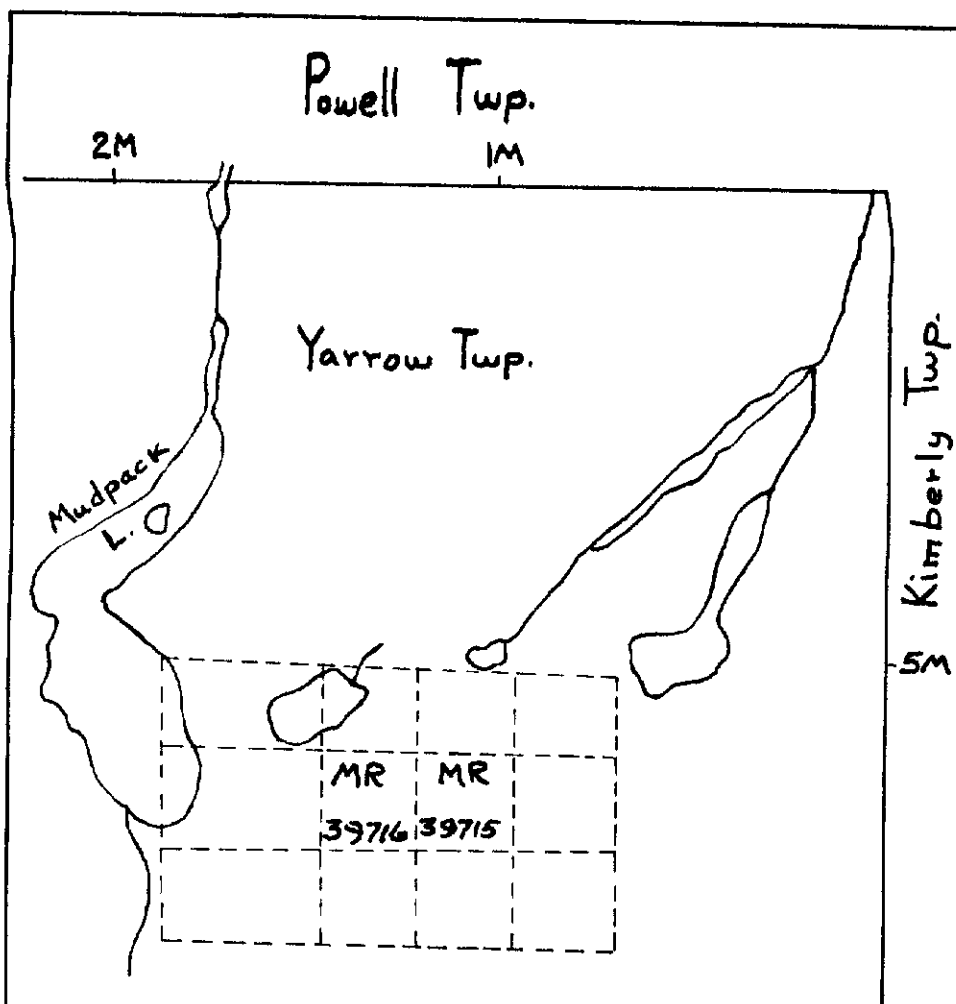
NOTES

LO 7601 COVERS FLOODING RIGHTS IN THIS TWP TO BE LOW CONTOUR 870.00 H.E.P.C. FILE 12290 VOL 2
400' Surface rights reservation around all lakes and rivers

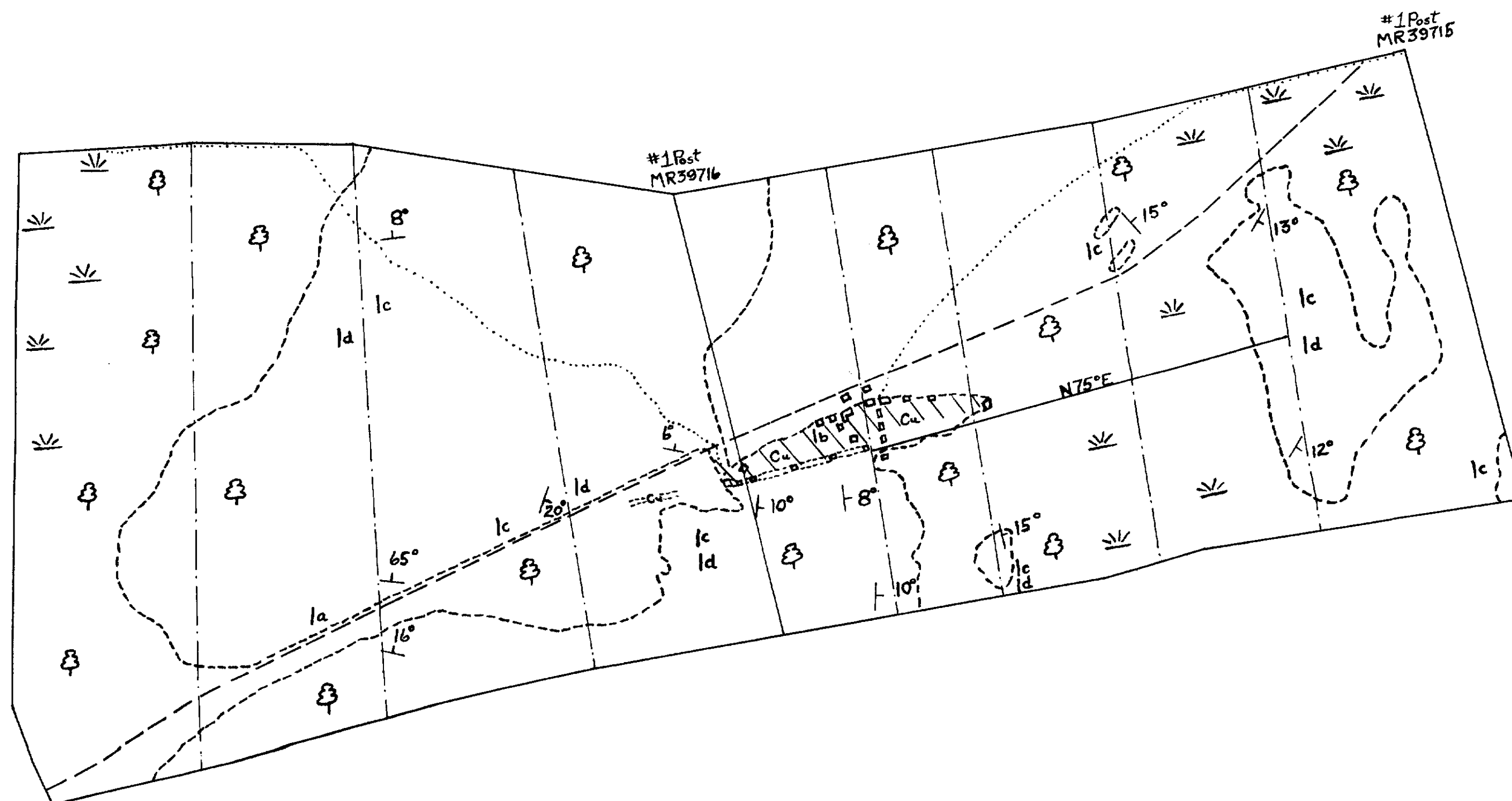
PLAN NO. M-260
DEPARTMENT OF MINES
— ONTARIO —

Kimberly Twp.





CLAIM MAP
TOWNSHIP OF YARROW
Northeastern Corner



LEGACY MINES LTD.
GEOLOGICAL MAP
CLAIM NO. MR39715 &
CLAIM NO. MR39716

YARROW TOWNSHIP
DISTRICT OF TIMISKAMING
MONTREAL RIVER MINING DIVISION

SCALE: 1 INCH = 200 FEET
August 16-27, 1966
Robert E. Aiken

LEGEND

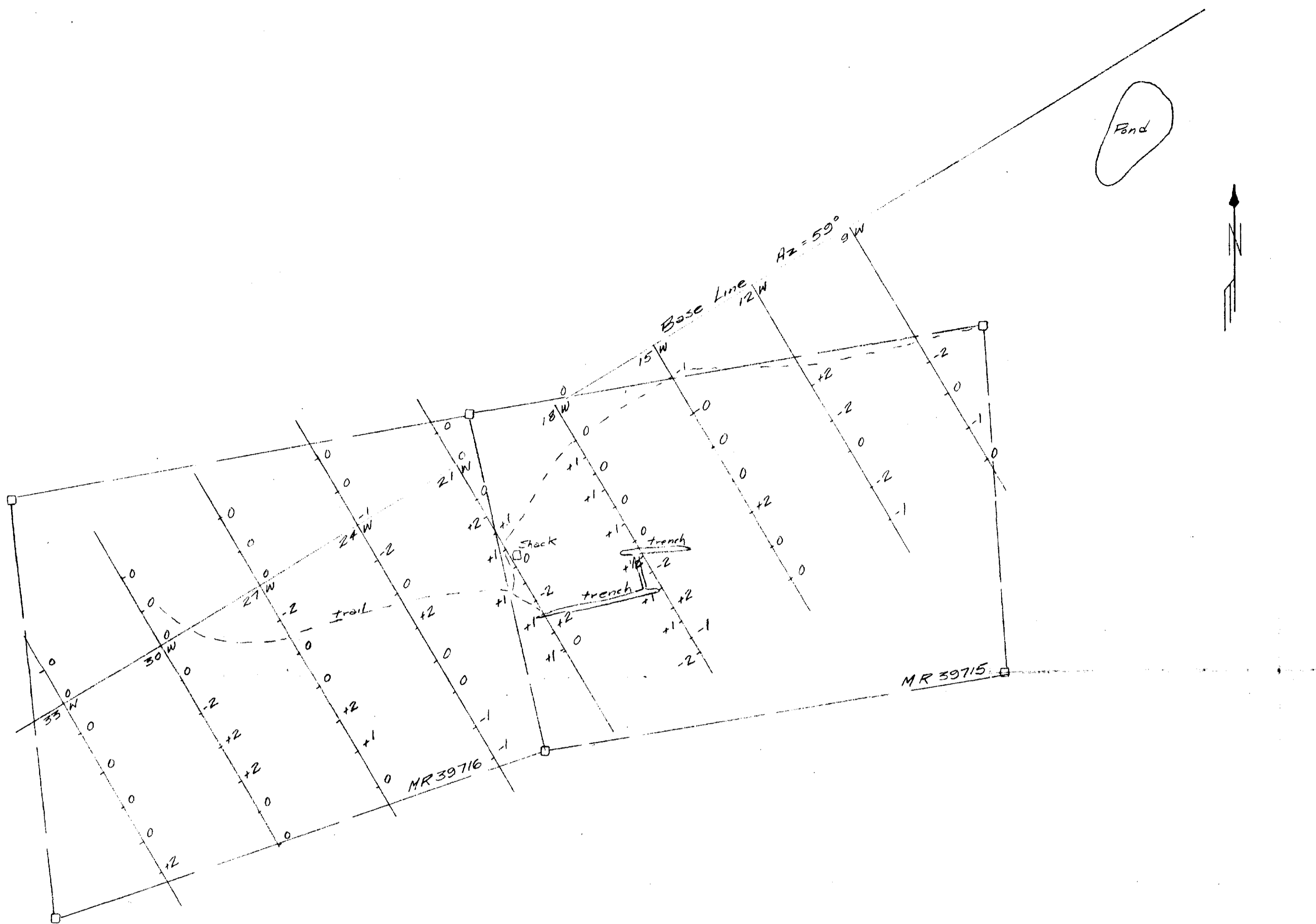
- CENOZOIC
 - RECENT
 - Swamp deposits
 - PLEISTOCENE
 - Clay, boulders
- PRECAMBRIAN
 - PROTEROZOIC
 - HURONIAN
 - COBALT GROUP
 - GOWGANDA FORMATION

1	1a Conglomerate
	1b Argillite
	1c Arkose
	1d Graywacke

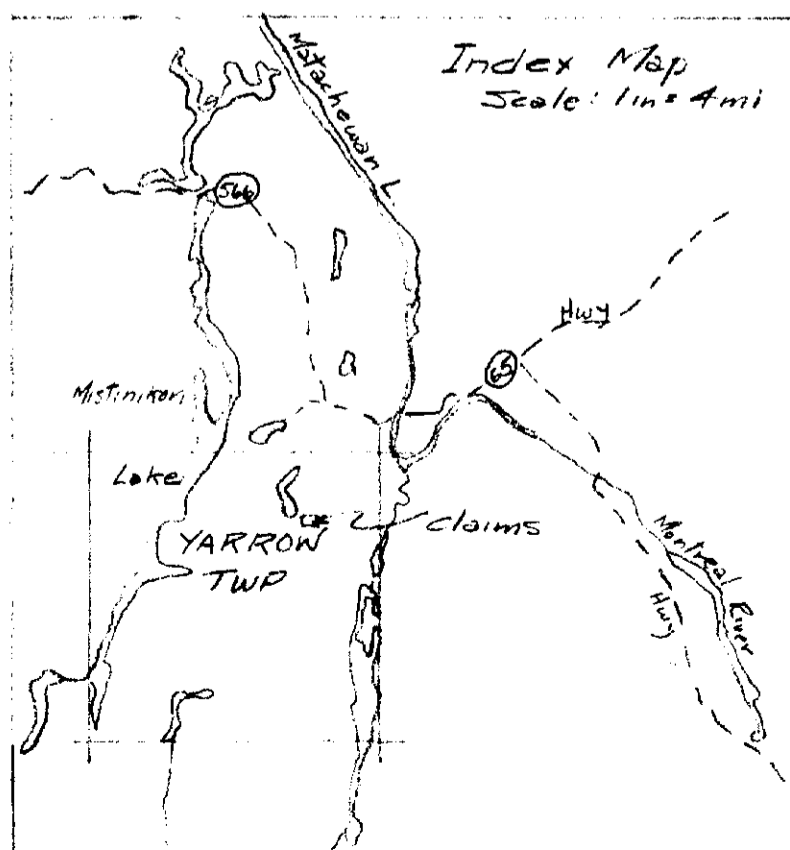
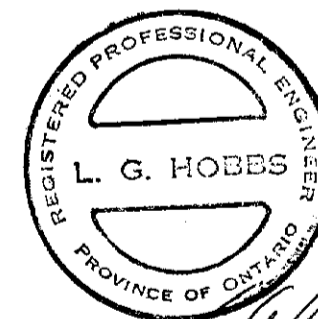
SYMBOLS

- Boundary of rock outcrop.
- Strike and dip.
- Fault, indicated or assumed.
- Test pit or trench.
- Claim lines.
- Picket lines.
- Base line.
- Trail.
- Swamp.
- Forest.
- Quartz vein.
- Copper mineralization.





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LEGACY MINES
 CRONE E.M. SURVEY
 Yarrow Twp
 Scale: 1 in = 200 ft.
 Nov. 1967 L. G. Hobbs

Readings shown in degrees of tilt angle
 High freq Tx-Rx = 200' to right of line
 High freq Tx-Rx = 300' to left of line
 □ — claim post & line
 - - - - - Trail

Survey done Sept 9-12, 1967