

FIELD TRIP GUIDEBOOK

NEW YORK STATE
GEOLOGICAL ASSOCIATION

32nd ANNUAL MEETING

HAMILTON COLLEGE
CLINTON, NEW YORK
MAY, 1960

GUIDEBOOK FOR FIELD TRIPS
32nd Annual Meeting of the
NEW YORK STATE GEOLOGICAL ASSOCIATION

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HAMILTON COLLEGE
Clinton, New York
May 13-14, 1960

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STRATIGRAPHIC COLUMN - UTICA AND LITTLE FALLS QUADRANGLES

SYSTEM	SERIES	Group	FORMATION	Character of rocks	Thickness in feet		
			Member				
SILURIAN	CAYUGAN	Salina	CAMILLUS	Mottled reddish and yellowish-green, and drab colored calcareous shale with flaggy dolomite beds.	100-300'		
			VERNON	Red crumbly shale with green layers and spots, and a green zone at base.	160-340'		
			disconformity				
NIAGARAN	Lockport	ILION		Gray-black dolomitic shale with interbedded dolomite beds, some of which contain stromatoporoids.	60'		
			Clinton	HERKIMER	Interbedded gray sandy dolomite, dolomitic sandstone, and shale, with a 3-foot hematitic, sandy, fossiliferous, dolomitic-calcareous ledge at base.	80'	
			WILLOWVALE		Green, thin-bedded shale with interbeds of fine-grained calcareous sandstone. At base is a 2½-foot bed of red, oolitic hematite.	32'	
			SAUQUOIT		Interbedded sandstone and shale with thin conglomerate beds. Cross-bedding is common.	160-200'	
ONEIDA			Quartz-pebble conglomerate and sandstone, in massive beds. Four to six inches of conglomerate at base is richly impregnated	25-30'			

with pyrite. Top is gradational into overlying Sauquoit.
disconformity.

ORDOVICIAN

CINCINNATIAN

Eden

FRANKFORT

Moyer

400'

Gray, silty to arenaceous shale,
with beds of sandstone.

Hasenclever

50'

Finely cross-laminated, thin-
bedded fine sandstone and inter-
bedded greenish shale.

Harter

100'

Greenish-gray laminated shale
which grades into black shale
of the Utica, below.

CHAMPLAINIAN

Trenton

UTICA

400-700'

Finely laminated black shale.
disconformity.

COBOURG

Steuben

60'

Thick-bedded, cross-laminated
calcarenite.

Rust

115'

Mostly thin limestone beds with
intercalated calcareous shale.

DENMARK

Russia

70'

Black, bituminous, impure lime-
stone with irregular shale inter-
beds. The upper 12' is calcareous
mudstone and brown-weathering
calcareous argillite.

Poland

60'

Interbedded gray-black limestone
and calcareous shale.

SHOREHAM

Rathbun

9'

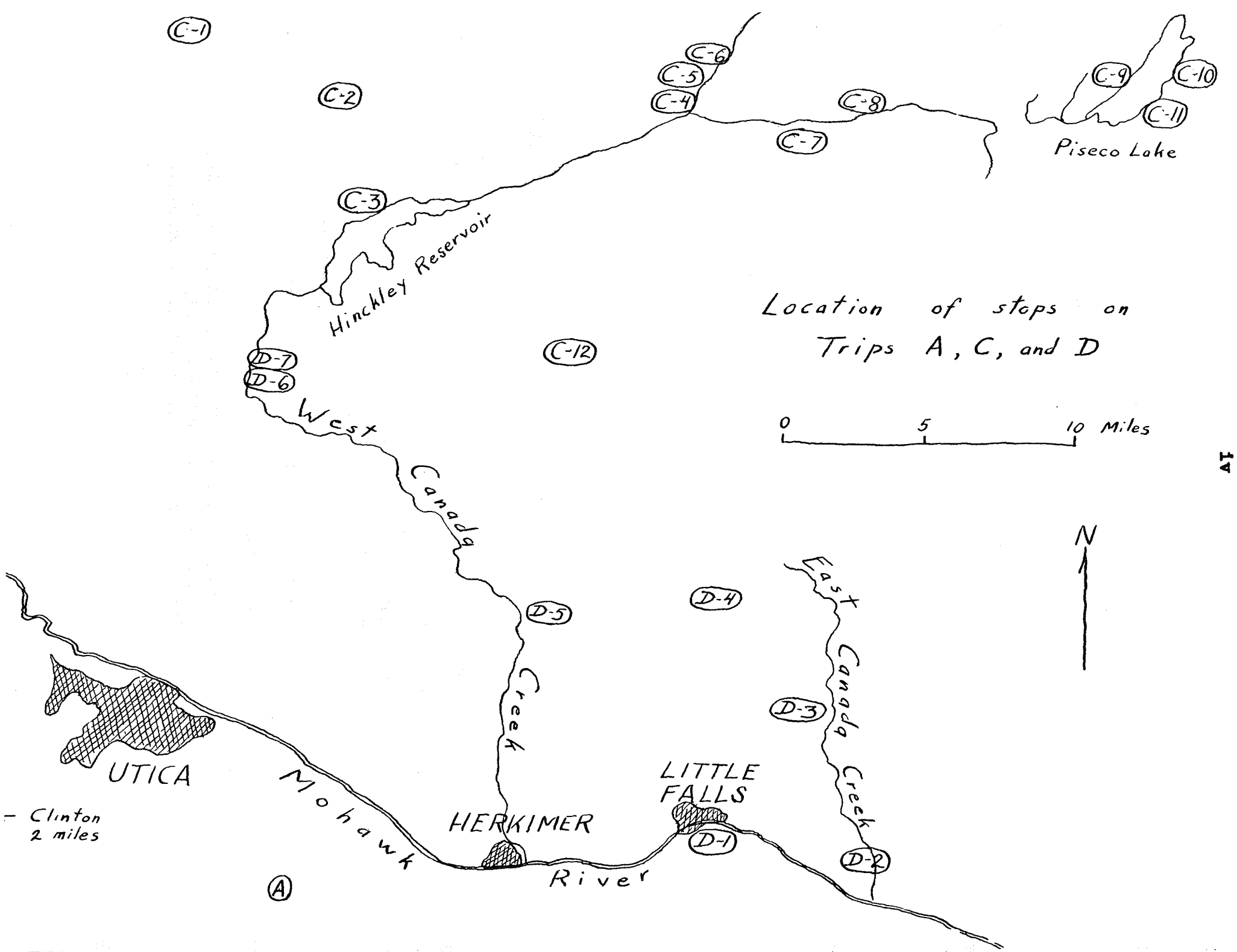
Interbeds of coquina-calcarenite,
calcilutite, and calcareous shale.

lower Shoreham

35-45'

Thin-bedded limestone inter-
bedded with calcareous shale.

KIRKFIELD	Thin-bedded limestone interbedded with calcareous shale. Thick calcarenite beds at top.	4-45'
ROCKLAND	Black, dark-weathering, somewhat cherty limestone, with shale partings toward the southeast. Missing near boundary between quadrangles. disconformity.	0-13'
Black River LOWVILLE	Upper part is light-gray weathering, medium gray calcilutite. Lower part is gray-brown, heavy-ledged, sandy and muddy limestone. disconformity.	26-40'
CANADIAN TRIBES HILL	Limestone and dolomite, commonly muddy and sandy. disconformity.	0-45'
CAMBRIAN CROIXIAN LITTLE FALLS	Dolomite, sandy dolomite, and dolomitic sandstone. Conglomerate at base. unconformity.	Up to 450'
PRECAMBRIAN	(General sequence for southern Adirondacks)	
	Hornblende-granite gneiss and biotite-granite gneiss	
	(major deformation and metamorphism)	
	Pyroxene-quartz-syenite gneiss	
	Anorthosite-gabbro	
	Grenville metasediments, including marble, paragneiss, quartzite, and amphibolite (some may be metagabbro or metavolcanic).	



Location of stops on Trips A, C, and D

0 5 10 Miles

N

AT

(C-1)

(C-2)

(C-3)

(C-4)
(C-5)
(C-6)

(C-8)

(C-7)

(C-9)

(C-10)

(C-11)

Piseco Lake

(C-12)

(D-7)

(D-6)

(D-5)

(D-4)

(D-3)

(D-1)

(D-2)

(A)

UTICA

HERKIMER

LITTLE FALLS

Mohawk

River

West
Canada
Creek

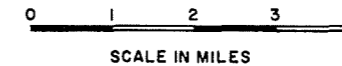
East
Canada
Creek

Hinckley Reservoir

Clinton
2 miles

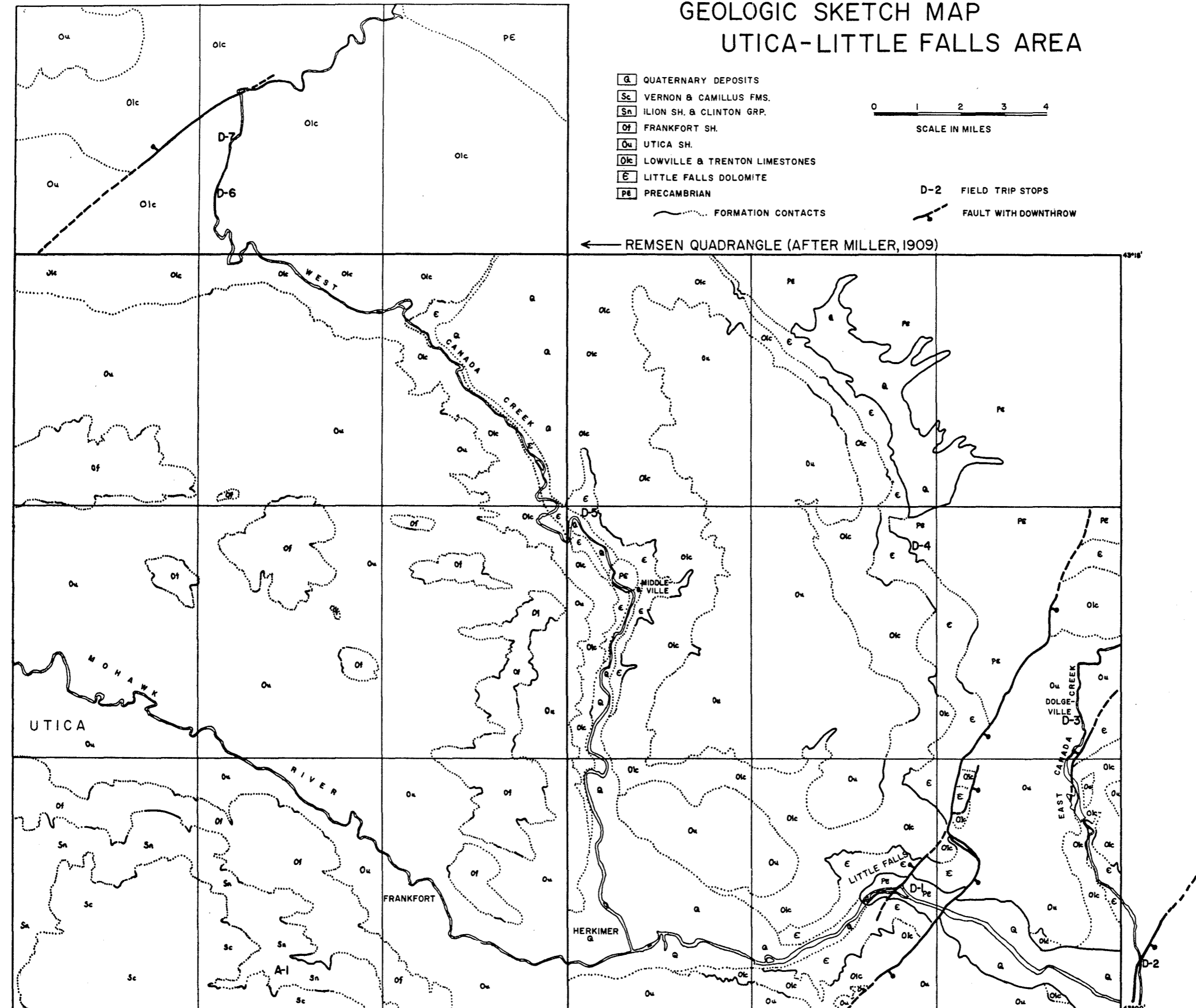
GEOLOGIC SKETCH MAP UTICA-LITTLE FALLS AREA

- Q QUATERNARY DEPOSITS
 - Sc VERNON & CAMILLUS FMS.
 - Sn ILION SH. & CLINTON GRP.
 - Of FRANKFORT SH.
 - Ou UTICA SH.
 - Olc LOWVILLE & TRENTON LIMESTONES
 - E LITTLE FALLS DOLOMITE
 - PE PRECAMBRIAN
- FORMATION CONTACTS
 FAULT WITH DOWNTHROW



- D-2 FIELD TRIP STOPS
- FAULT WITH DOWNTHROW

← REMSEN QUADRANGLE (AFTER MILLER, 1909)



UTICA QUADRANGLE (AFTER KAY, 1953)

LITTLE FALLS QUADRANGLE (AFTER CUSHING, 1905)