

MOODY TOWNSHIP

DISTRICT OF COCHRANE, ONTARIO

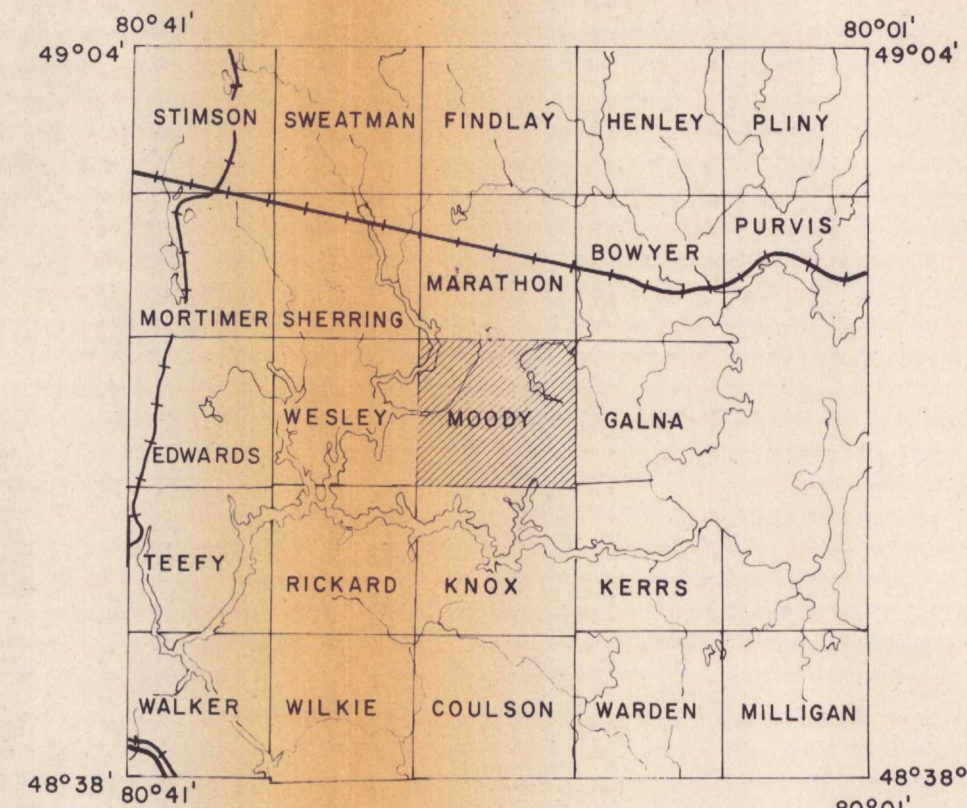


TABLE OF LITHOLOGICAL UNITS
KIRKLAND LAKE DATA SERIES

UNIT	DESCRIPTION
CENOZOIC	
PLEISTOCENE AND RECENT	
180	ORGANIC DEPOSITS
181	Open and semi-open bogs
182	COCHRANE DEPOSITS
183	Clay fill
184	BARLOW-OJIBWAY DEPOSITS
185	Varved sediments
186	Sand and gravel deposits
187	GLACIO-FLUVIAL DEPOSITS
188	Esker complex associated outwash sand and gravel deposits
189	CRUARD MOIRAIN DEPOSITS
190	Sandy grey boulder fill, with minor contained stratified drift, resting on bedrock
UNCONFORMITY	
MESOZOIC	
17	Kimberlite
INTRUSIVE CONTACT	
PALEOZOIC	
LOWER AND MIDDLE SILURIAN	
16	16a Clinton (Theoretical) Formation: limestone, dolomite, sandstone
16	16b Wolf Formation: limestone, shale
MIDDLE AND UPPER DEVONIAN	
15	15a Dawson Point Formation: shale
15	15b Fort Hamilton Formation: limestone
15	15c Rucke Formation: limestone, shale
15	15d Colborne Formation: limestone
UNCONFORMITY	
PRECAMBRIAN	
LATE PRECAMBRIAN (PROTEROZOIC)	
14	14a Mafic intrusive rocks ^a
14	14b Granite dikes
INTRUSIVE CONTACT	
MIDDLE PRECAMBRIAN (PROTEROZOIC)	
13	13a Mafic intrusive rocks ^a
13	13b Gneiss, transition rock, and granophyre sheets and dikes
INTRUSIVE CONTACT	
CONANT GROUP	
11	11a Loyalton Formation: quartzite, arkose
11	11b Osgoode Formation
11	11c Gullifer Formation: argillite, siltstone, breccia, arkose
11	11d Colborne Member: conglomerate, argillite, quartzite, arkose, argillite
UNCONFORMITY	
EARLY PRECAMBRIAN (ARCHAIC)	
9	9a Mafic intrusive rocks ^a
9	9b Granite dikes
INTRUSIVE CONTACT	
ALKALIC INTRUSIVE ROCKS^b	
8	8a Syenite, monzonite, lamprophyre ^a
INTRUSIVE CONTACT	
ALKALIC METAVOLCANICS^b	
7	7a Trachyte, trachyte trachyte flows, tuff, breccia
METASEDIMENTARY	
6	6a Conglomerate, arkose, siltstone, shale, argillite, iron formation ^a
6	6b Gneiss, siltstone, slate, iron formation ^a
PLUTONIC INTRUSIVE ROCKS^a	
4	4a Quartz diorite, quartzite
4	4b Quartz porphyry, quartz-feldspar porphyry, felsite, porphyry, gneiss, felsite ^a
4	4c Amphibolite, granodiorite, quartz monzonite, simple batholiths and rocks ^a
4	4d Amphibolite, quartzite, quartz monzonite, quartz diorite, granite, pegmatite, monzonite, complex batholiths
INTRUSIVE CONTACT	
FELSIC METAVOLCANICS AND VOLCANICS^a	
3	3a Amphibolite, rhyolite
3	3b Iron formation and ferruginous chert
3	3c Pyroclastic rocks
INTRUSIVE CONTACT	
REMANIPULATED MAFIC AND ULTRAMAFIC INTRUSIVE ROCKS^a	
2	2a Amphibolite
2	2b Gabbro, diorite
2	2c Peridotite, dunite, pyroxenite, serpentinite
INTRUSIVE CONTACT	
INTERMEDIATE AND MAFIC METAVOLCANICS^a	
1	1a Differentiated mafic, andesite, and basalt
1	1b Intermediate pyroclastic rocks
1	1c Mafic flows
1	1d Mafic pyroclastic rocks

SYMBOLS FOR KIRKLAND LAKE DATA SERIES

Glacial stream	Drill hole; projected vertically; overburden shown
Esker, medial ridge	Well hole in overburden only; vertical or collar inclined; overburden shown
Small bedrock outcrop	Shaft; depth in feet
Bedding, top unknown (inclined, vertical)	Mineral occurrence at surface
Bedding, top (arrow) from grain gradation (inclined, vertical, overturned)	Airborne electromagnetic anomaly (Quester 6 Channel Loop System)
Bedding, top (arrow) from pillow shape and packing (inclined, vertical)	2 channel response
Schistosity (horizontal, inclined, vertical)	3 channel response
Discontinuity (horizontal, inclined, vertical)	4 channel response
Layering (horizontal, inclined, vertical)	5 channel response
Litavation with plunge (observed)	6 channel response and airborne magnetic anomaly
Geological boundary (observed)	Airborne magnetometer anomaly
Geological boundary position interpreted	Ground magnetometer anomaly
Geological boundary deduced from geophysics	Ground electromagnetic conductor (EM-Vert-loop; horizontal loop; VLF-VLF very low freq.; Turam; JIB-Crone EM-16)
Fault; (observed, assumed)	Induced Polarization anomaly
Foot indicates down throw side; arrow indicates horizontal movement	Spontaneous Polarization anomaly
Litavament	Gravity anomaly
Rotating (horizontal, inclined, vertical)	Radiometric anomaly
Drag folds with plunge	Resistivity anomaly
Anticline, syncline, with plunge	

METAL AND MINERAL REFERENCE

For Kirkland Lake Data Series

Ag	Silver	no	Nyctenite
asb	Asbestos	Ni	Nickel
Au	Gold	Pb	Lead
Cd	Cadmium	Pd	Palladium
Co	Cobalt	py	Pyrrhotite
cp	Chalcopyrite	pl	Platinum
Cr	Chromite	pyr	Pyrite
Cu	Copper	qc	Quartz-carbonate vein
ep	Epidote	qtz	Quartz
Fe	Iron	serp	Serpentine
Fl	Fluorite	sh	Sphalerite
Gr	Graphite	sp	Spinel
gt	Garnet	st	Staurolite
gn	Galena	spc	Specularite
mag	Magnetite	tal	Talc
mar	Marcasite	zn	Zinc
ml	Milchite		

Sources of Information
Compiled by the Geological Survey of Canada in cooperation with the Ontario Department of Mines and Northern Affairs from data on file with the Resident Geologist (Ontario Department of Mines and Northern Affairs), Kirkland Lake.

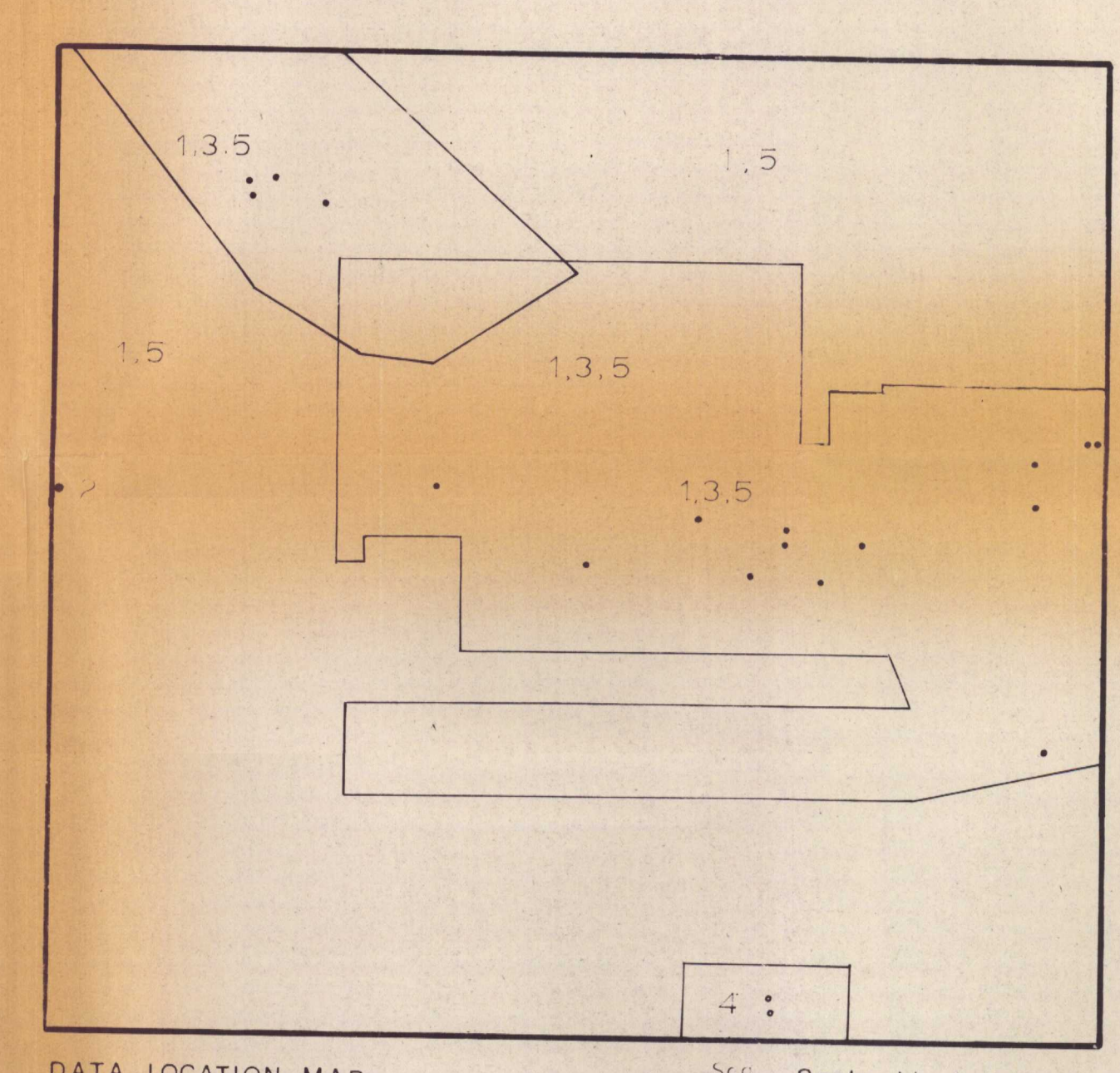
MS Reference 42 4/16
GSC Reference 23955
GSC Geophysical Compilation Series Map 246
GSC Surficial Geology Map 45-1999



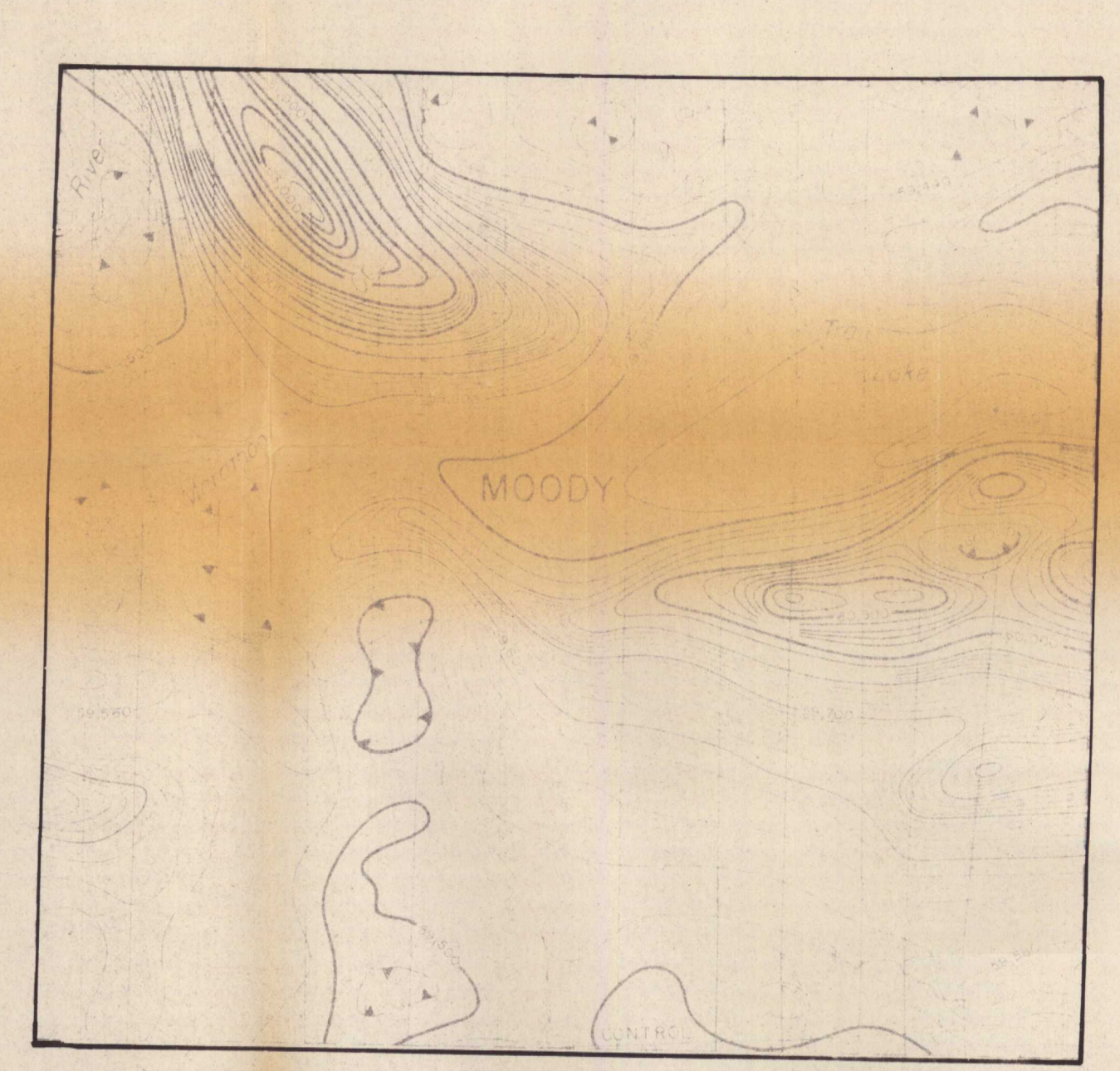
Scale: 1 inch to 1/4 mile

DATA FILED WITH THE ONTARIO DEPARTMENT OF MINES AND NORTHERN AFFAIRS RESIDENT GEOLOGIST AT KIRKLAND LAKE Through February 1972		GEOLOGICAL	DIAMOND DRILLING	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	GROUND MAGNETOMETER	VERTICAL LOOP ELECTROMAGNETIC	HORIZONTAL LOOP ELECTROMAGNETIC	TURAM ELECTROMAGNETIC	JIB	INDUCED POLARIZATION	VLF	RESISTIVITY	GRAVITY	GEOPHYSICAL	OTHER
1.	Glen Lake Silver Mines Ltd.															
2.	International Nickel Company of Canada Ltd., The "Woody & Wesley"		65													
3.	Mistango River Mines Ltd.		67		62											
4.	Noranda Exploration Company Ltd. "Woody"		65		65											
5.	North American Rare Metals Ltd.		62													

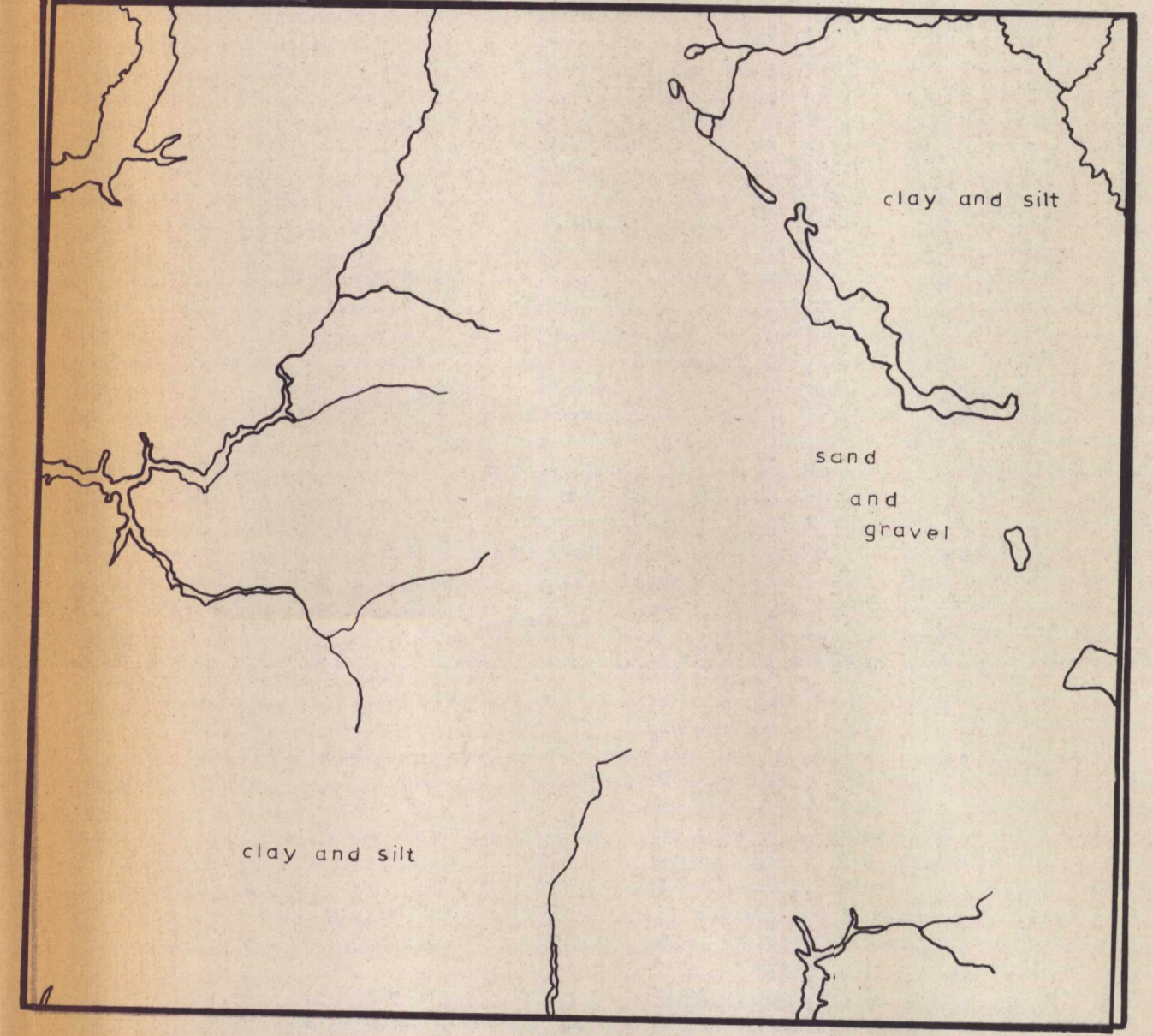
Note: The numbers on the above list stand for the year when the work was done, e.g., 66 for 1966. On the accompanying DATA LOCATION MAP, only areas for which work was submitted to the Department are outlined, and thus a company may hold more ground than indicated here. The numbers on the DATA LOCATION MAP and any circled numbers refer to the company list above.



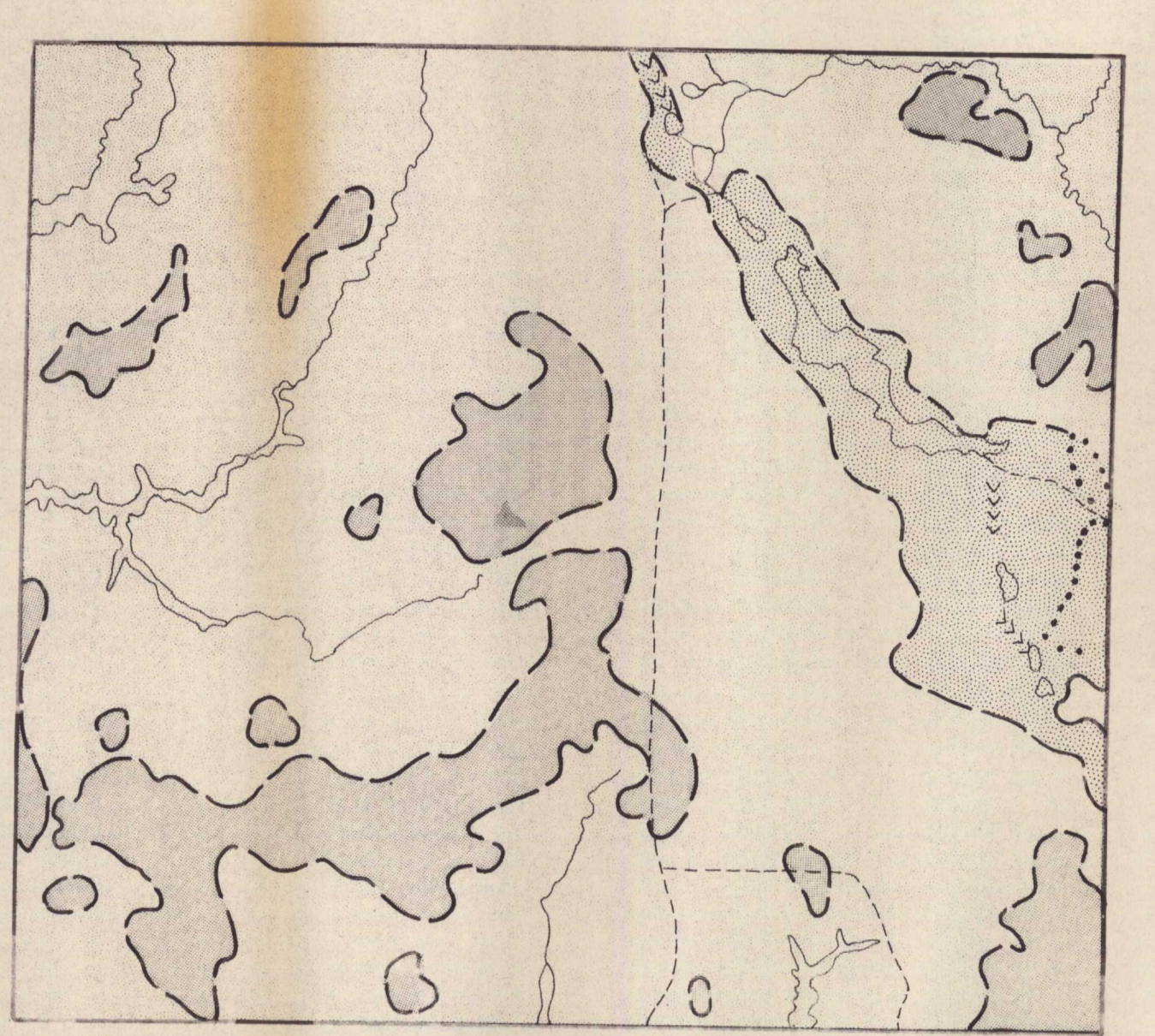
Scale: 1 inch to 1 mile



Scale: 1 inch to 1 mile



Scale: 1 inch to 1 mile



Scale: 1 inch to 1 mile

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84
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OTTAWA