

PLAYFAIR TOWNSHIP
DISTRICT OF COCHRANE, ONTARIO

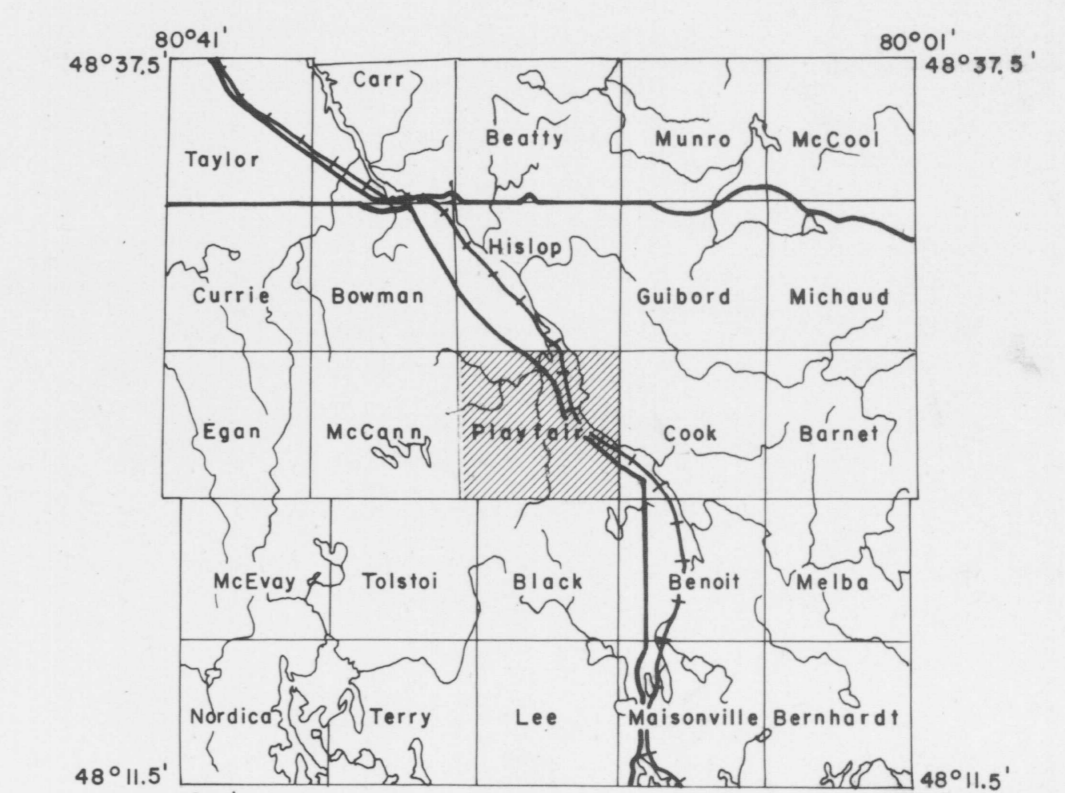


TABLE OF LITHOLOGICAL UNITS
KIRKLAND LAKE DATA SERIES

CENOZOIC	
PLEISTOCENE AND RECENT	
18	18B ORGANIC DEPOSITS Open and semi-open bogs
18	18B COCHRANE DEPOSITS Clay fill
18	18C BARLOW-OJIBWAY DEPOSITS Sorted sediments
18	18D GLACIO-FLUVIAL DEPOSITS Esker complex associated outwash sand and gravel deposits
18	18E GROUND MORINE DEPOSITS Sandy grey boulder fill, with minor contained stratified drift, resting on bedrock
UNCONFORMITY	
MESOZOIC	
17	17 Kimberlite
INTRUSIVE CONTACT	
PALEOZOIC AND MIDDLE SILURIAN	
LOWER AND MIDDLE SILURIAN	
16	16A Clinton (Thornhill) Formation: limestone, dolomite, sandstone
16	16B Mt. Formation: limestone, shale
MIDDLE AND UPPER ORDOVICIAN	
15	15a Jason Point Formation: shale
15	15b Farr Formation: limestone
15	15c Rucke Formation: limestone, shale
15	15d Fulgure Formation: sandstone
UNCONFORMITY	
PRECAMBRIAN	
LATE PRECAMBRIAN (PROTEROZOIC)	
MAFIC INTRUSIVE ROCKS ¹	
14	14 Diabase dikes
INTRUSIVE CONTACT	
MIDDLE PRECAMBRIAN (PROTEROZOIC)	
ALKALIC INTRUSIVE ROCKS ²	
13	13 Syenite, monzonite, syenite, lamprophyre
MAFIC INTRUSIVE ROCKS ¹	
12	12 Diabase, transition rock, and granophyre sheets and dikes
INTRUSIVE CONTACT	
CORALLY GROUP	
11	11 Lorrain Formation: quartzite, arkose
10	10 Undifferentiated
10a	10a Firstbrook Member: argillite, siltstone, greywacke, arkose
10b	10b Coleman Member: conglomerate, greywacke, quartzite, arkose, argillite
UNCONFORMITY	
EARLY PRECAMBRIAN (ARCHAIC)	
MAFIC INTRUSIVE ROCKS ¹	
9	9 Diabase dikes
INTRUSIVE CONTACT	
ALKALIC INTRUSIVE ROCKS ²	
8	8 Syenite, monzonite, lamprophyre ^a
INTRUSIVE CONTACT	
ALKALIC METAVOLCANICS ³	
7	7 Trachyte, leucitic trachyte; flows, tuff, breccia
METASEDIMENTS	
6	6 Conglomerate, greywacke, siltstone, slate, argillite, iron formation ^b
5	5 Greywacke, siltstone, slate, iron formation ^c
FELSIC INTRUSIVE ROCKS ⁴	
4	4 Granitic intrusive rocks
4a	4a Quartz porphyry, quartz-talcar porphyry, felsic porphyry, granophyre, felsite ^d
4b	4b Trondhjemite, granodiorite, quartz monzonite, simple batholiths and stocks ^e
4c	4c Trondhjemite, granodiorite, quartz monzonite, quartz diorite, syenite, peraluminous, migmatite; complex batholiths
INTRUSIVE CONTACT	
FELSIC METAVOLCANICS AND VOLCANICS ⁵	
3	3 Undifferentiated, rhyolite
3a	3a Iron formation and ferruginous chert
3b	3b Flows
3c	3c Pyroclastic rocks
INTRUSIVE CONTACT	
METAMORPHIC MAFIC AND ULTRAMAFIC INTRUSIVE ROCKS ⁶	
2	2 Undifferentiated
2a	2a Saponite, diorite
2b	2b Peridotite, dunite, pyroxenite, serpentinite
INTRUSIVE CONTACT	
INTERMEDIATE AND MAFIC METAVOLCANICS ⁷	
1	1 Undifferentiated andesite, andesite, and basalt
1a	1a Intermediate flows
1b	1b Intermediate pyroclastic rocks
1c	1c Mafic flows
1d	1d Mafic pyroclastic rocks

GEOLOGICAL AND MINING SYMBOLS FOR KIRKLAND LAKE DATA SERIES

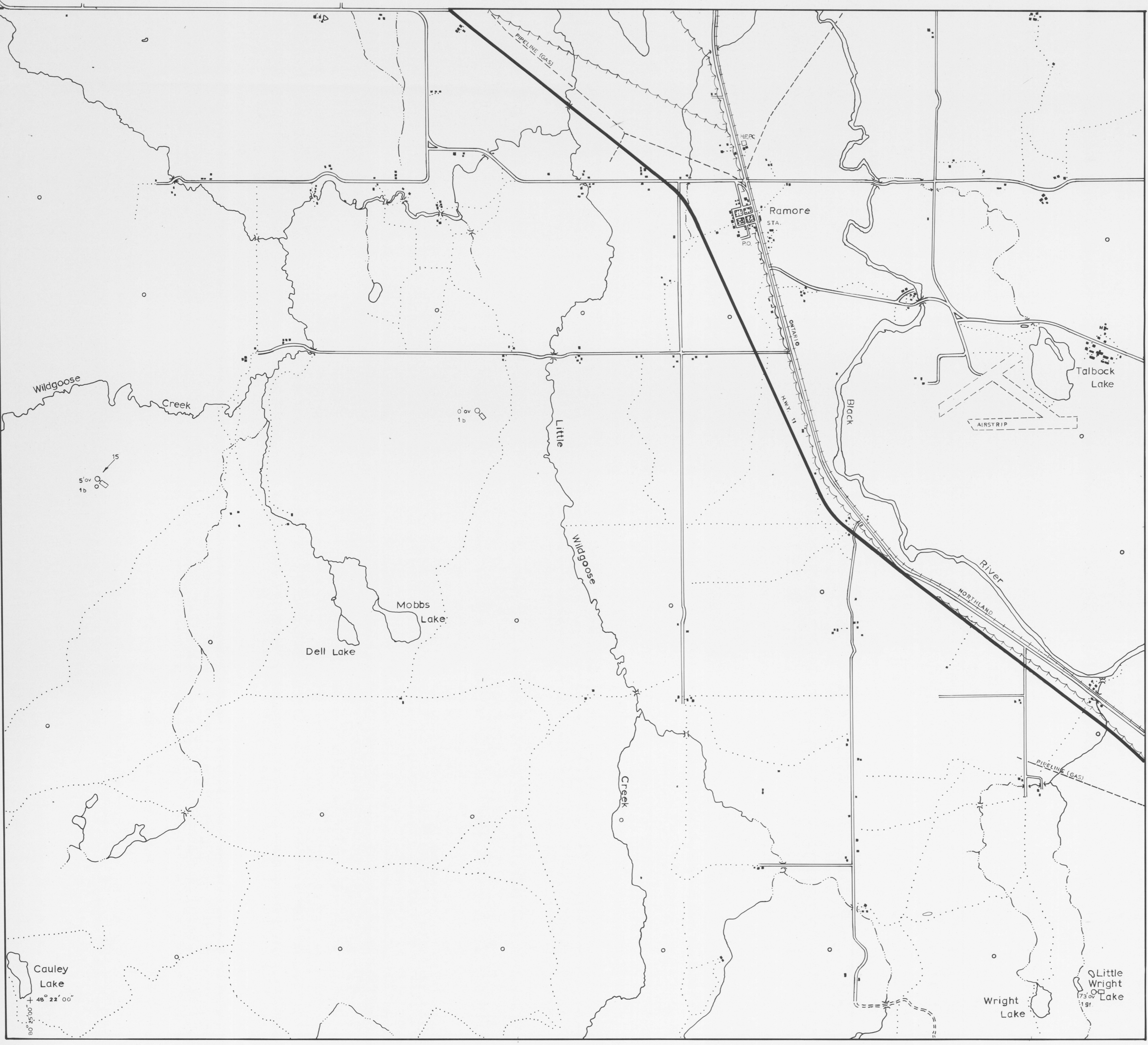
Glacial striae.	Drill hole; (projected vertically). Overburden shown.
Esker, medial ridge.	Drill hole in overburden only; (vertical or collar, inclined). Overburden shown.
Small bedrock outcrop.	Shaft; depth in feet.
Bedding, top unknown; (inclined, vertical).	Mineral occurrence at surface.
Bedding, top (arrow) from grain gradation; (inclined, vertical, overturned).	Airborne electromagnetic anomaly (Canadian Aero System).
Bedding, top (arrow) from cross bedding; (inclined, vertical, overturned).	Airborne electromagnetic anomaly (Quater 6 Channel Input System).
Lava flow; top (arrow) from pillow shape and packing.	2 channel response.
Schistosity; (horizontal, inclined, vertical).	3 channel response.
Gneissosity; (horizontal, inclined, vertical).	4 channel response.
Layering; (horizontal, inclined, vertical).	5 channel response.
Lineation with plunge.	6 channel response and coincident magnetic anomaly.
Geological boundary, observed.	Airborne magnetometer anomaly.
Geological boundary, position interpreted.	Ground magnetometer anomaly.
Geological boundary, deduced from geophysics.	Ground electromagnetic conductor (EDM-Vent-Loop; EDM-Horizontal loop; VLF-Very low freq.; Turam; JDM-Crone EM-15).
Fault; (observed, assumed). Spc indicates down throw side, arrows indicate horizontal movement.	Induced Polarization anomaly.
Lineament.	Spontaneous Polarization anomaly.
Jointing; (horizontal, inclined, vertical).	Gravity anomaly.
Drag folds with plunge.	Hydrometric anomaly.
Anticline, syncline, with plunge.	Resistivity anomaly.

METAL AND MINERAL REFERENCE
For Kirkland Lake Data Series

Ag Silver	Mo Molybdenite
Asb Asbestos	Ni Nickel
Au Gold	Pb Lead
Cd Cadmium	Pd Palladium
Co Cobalt	pm Plumbite
Cp Chalcopyrite	py Pyrrhotite
Cs Caesium	Pl Platinite
Cu Copper	py Pyrite
Ep Epidote	qcw Quartz-carbonate vein
Fe Iron	qv Quartz vein
Fl Fluorite	serp Serpentine
Gr Granite	sh Shale
Gal Galena	spec Sphalerite
Mag Magnetite	talc Talc
Mar Marcasite	Tin Tin
Ml Millerite	Zn Zinc

Sources of Information
Compiled by the Geological Survey of Canada in co-operation 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.

NTS Reference 42 A/7, 42 A/9, 42 A/9, 42 A/10, 42 A/11, 42 A/12, 42 A/13, 42 A/14, 42 A/15, 42 A/16, 42 A/17, 42 A/18, 42 A/19, 42 A/20, 42 A/21, 42 A/22, 42 A/23, 42 A/24, 42 A/25, 42 A/26, 42 A/27, 42 A/28, 42 A/29, 42 A/30, 42 A/31, 42 A/32, 42 A/33, 42 A/34, 42 A/35, 42 A/36, 42 A/37, 42 A/38, 42 A/39, 42 A/40, 42 A/41, 42 A/42, 42 A/43, 42 A/44, 42 A/45, 42 A/46, 42 A/47, 42 A/48, 42 A/49, 42 A/50, 42 A/51, 42 A/52, 42 A/53, 42 A/54, 42 A/55, 42 A/56, 42 A/57, 42 A/58, 42 A/59, 42 A/60, 42 A/61, 42 A/62, 42 A/63, 42 A/64, 42 A/65, 42 A/66, 42 A/67, 42 A/68, 42 A/69, 42 A/70, 42 A/71, 42 A/72, 42 A/73, 42 A/74, 42 A/75, 42 A/76, 42 A/77, 42 A/78, 42 A/79, 42 A/80, 42 A/81, 42 A/82, 42 A/83, 42 A/84, 42 A/85, 42 A/86, 42 A/87, 42 A/88, 42 A/89, 42 A/90, 42 A/91, 42 A/92, 42 A/93, 42 A/94, 42 A/95, 42 A/96, 42 A/97, 42 A/98, 42 A/99, 42 A/100.

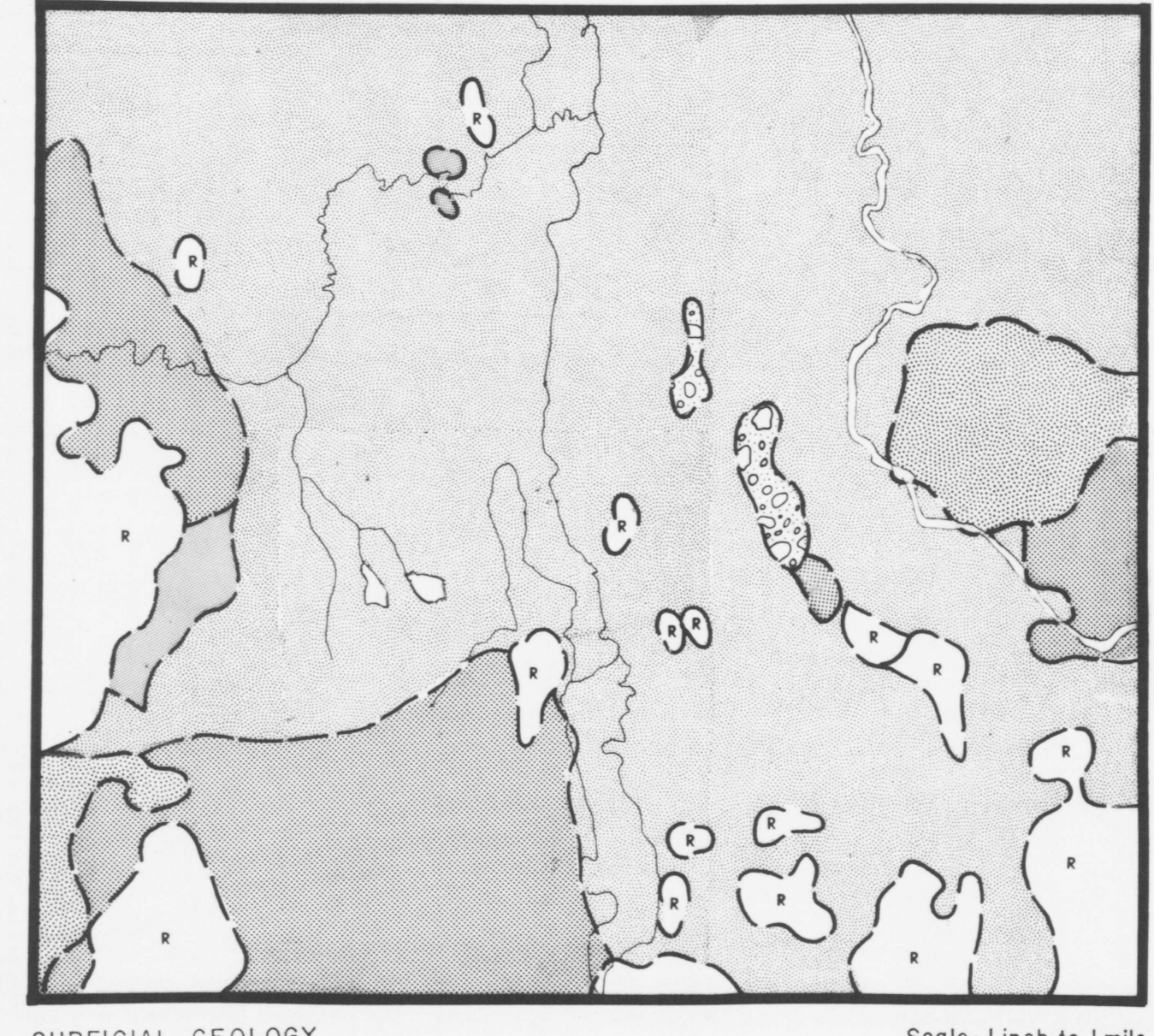
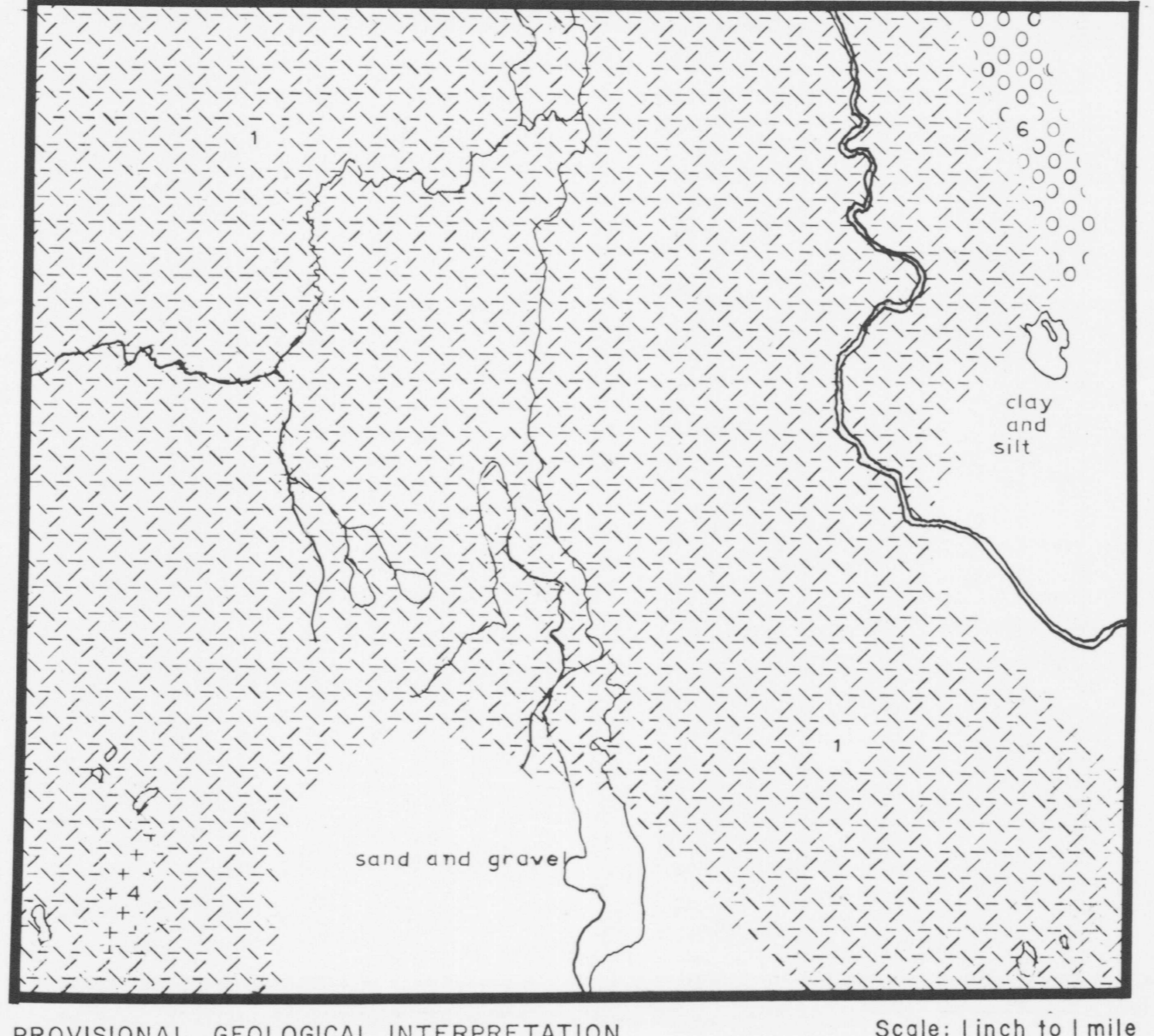
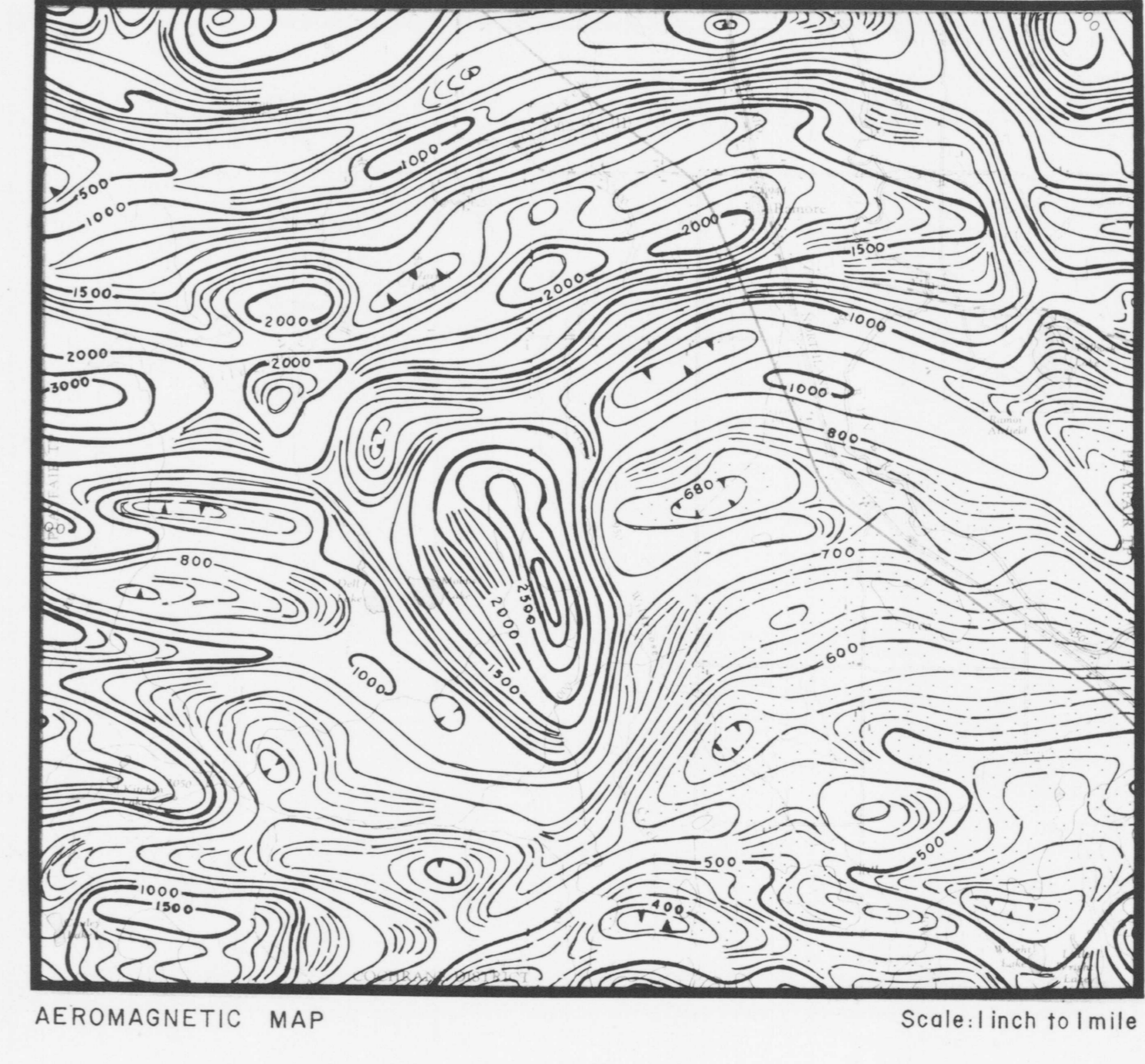
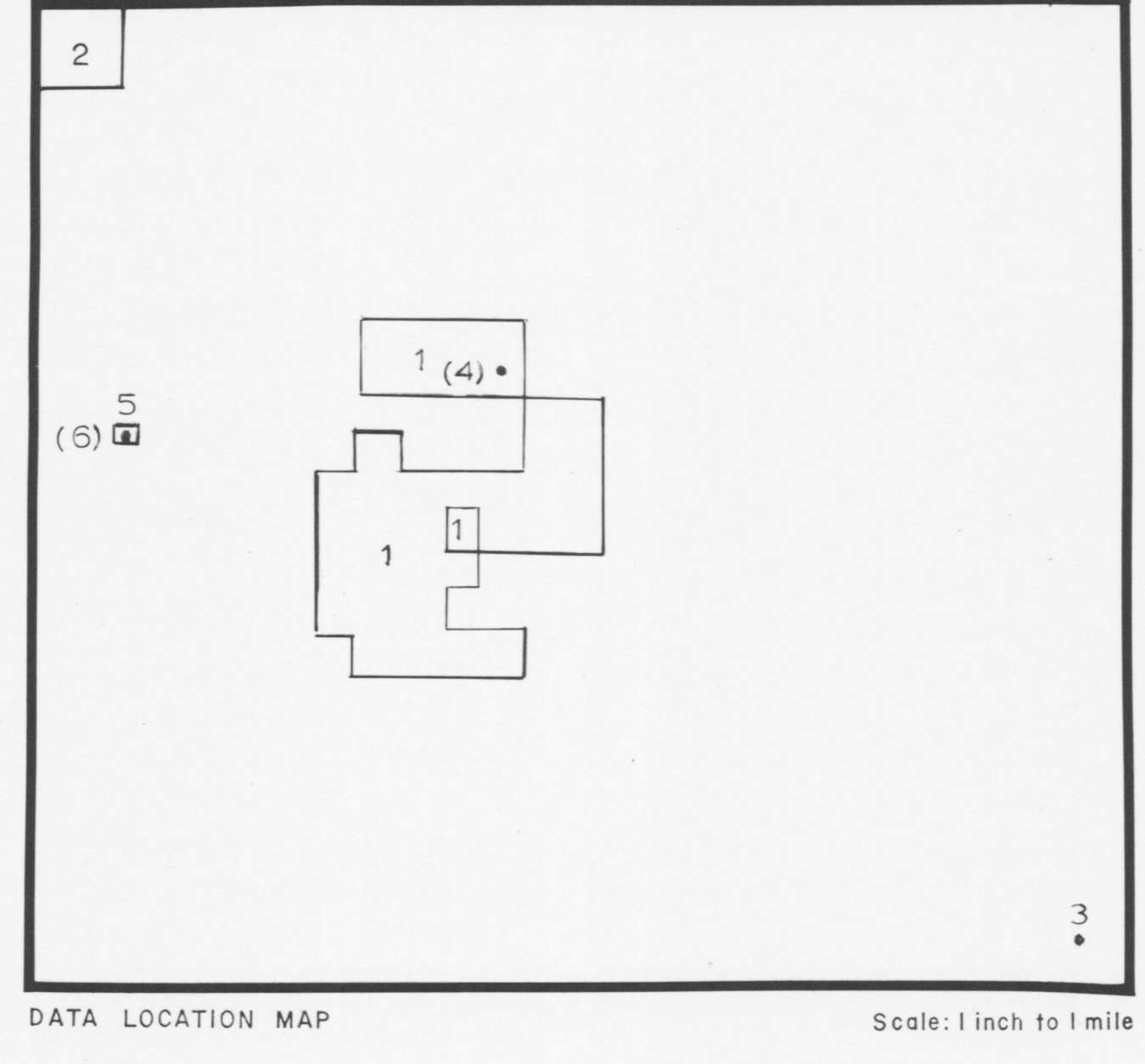


Scale: 1 inch to 1/4 mile

DATA FILED WITH THE
ONTARIO DEPARTMENT OF MINES
AND NORTHERN AFFAIRS
RESIDENT GEOLOGIST
AT KIRKLAND LAKE
Through March 1972

	GEOLOGICAL	DIAMOND DRILLING	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETOMETER	GROUND MAGNETOMETER	VERTICAL LOOP ELECTROMAGNETOMETER	HORIZONTAL LOOP ELECTROMAGNETOMETER	TURAM ELECTROMAGNETOMETER	JEM	INDUCED POLARIZATION	VLF	RESISTIVITY	GRAVITY	GEOCHEMICAL	OTHERS
1. David Copperfield Exploration Ltd.															56*
2. Draw, Doris property															
3. International Nickel Co. of Canada, Ltd.		65			46										
4. Mobbs Gold Mines Ltd.		65													
5. Temple Gold Mines Ltd.		45**													48***
6. Tremble, Frank claims															
* Prospectus															
** 15 DH															
*** Pit sampling															

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.



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104
JUN 1972
GEOLOGICAL SURVEY
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