

**LAFOREST-HLAVA EXPLOR
SERVICES LTD.**



41P15NE8317 2.10706 CAIRO

010

(705) 268-2511

24 Pine Street South, P.O. Box 1163, TIMMINS, ONTARIO P4N 7H9

MAGNETOMETER

RECEIVED

AND

JAN 07 1988

VLF - EM 16 SURVEYS

FOR

MINING LANDS SECTION

CONSOLIDATED NRD RESOURCES LTD.

CAIRO TOWNSHIP

KIRKLAND LAKE MINING DIVISION

Timmins, Ontario
October, 1987

M. Hlava B.Sc., F.G.A.S.
Consulting Geologist

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MAPS

In Pockets

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MAP 2	VLF - EM 16 Survey - Fraser Plot (NAA)	Scale 1" = 200'
MAP 3	VLF - EM 16 Survey Profiles (NAA)	Scale 1" = 200'
MAP 4	VLF - EM 16 Survey Profiles (NSS)	Scale 1" = 200'

INTRODUCTION

The following report describes the results of a ground magnetometer survey and VLF-EM16 survey for Consolidated NRD Resources Limited on a claim group located in Cairo Township. The field work was completed during the period August 5 to September 5, 1987.

PROPERTY LOCATION AND ACCESS (FIGURE 1)

The Consolidated NRD Resources Ltd property is located in Cairo Township, Kirkland Lake Mining Division, Ontario at Latitude 47° 58' and longitude 80° 37' or approximately 4 kilometers (2.5 miles) NE of Matachewan.

The property is accessible by a lumber road which turns north off Highway 65, approximately 4 kilometers (2.5 miles) east of Matachewan.

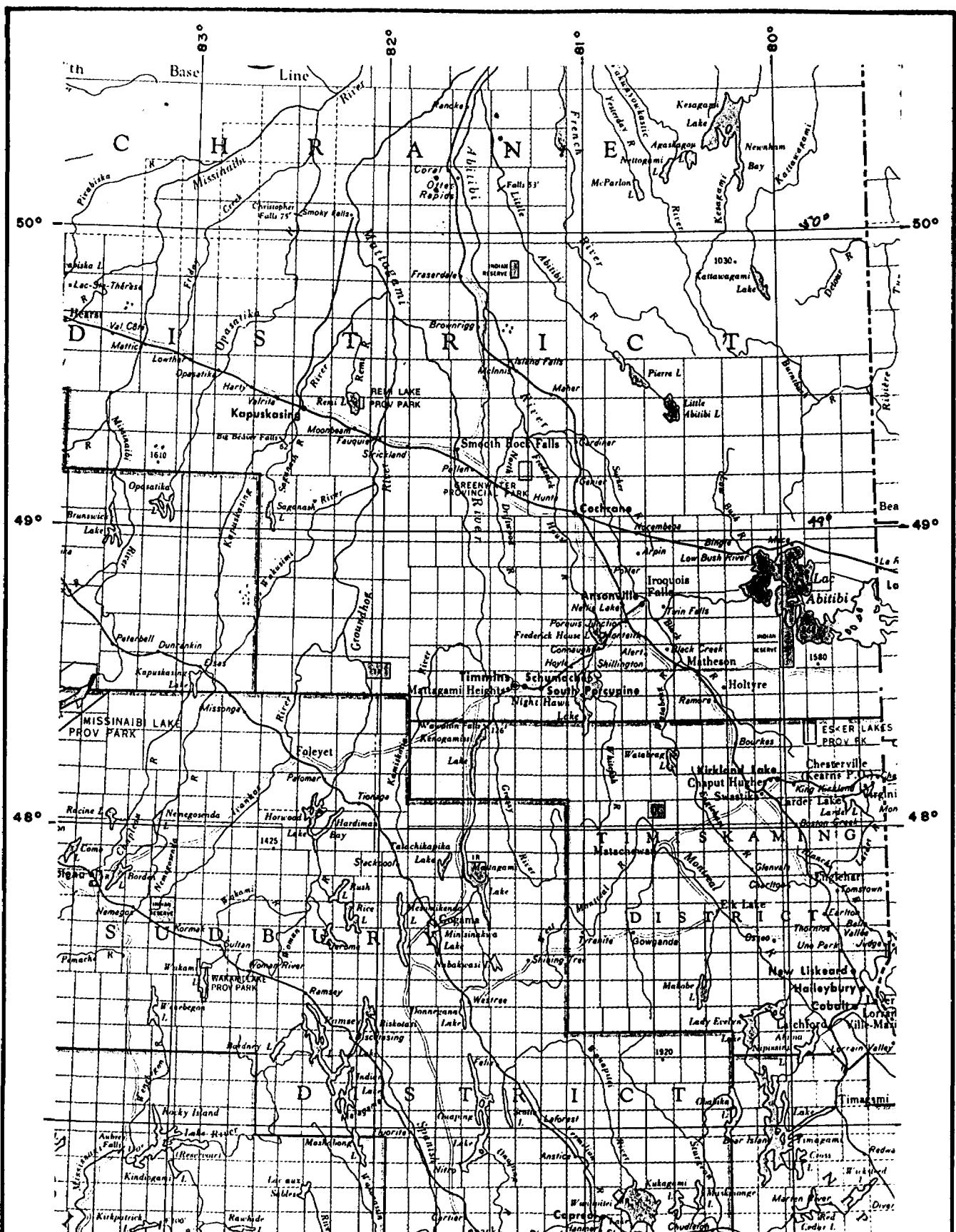
PROPERTY DESCRIPTION (FIGURE 2)

The property consists of 25 contiguous, unpatented mining claims numbered as follows:

L971267	L971272	L971277	L954129	L959134
L971268	L971273	L971278	L954130	L954135
L971269	L971274	L954126	L954131	L954136
L971270	L971275	L954127	L954132	L954490
L971271	L971276	L954128	L954133	L954491

GRID

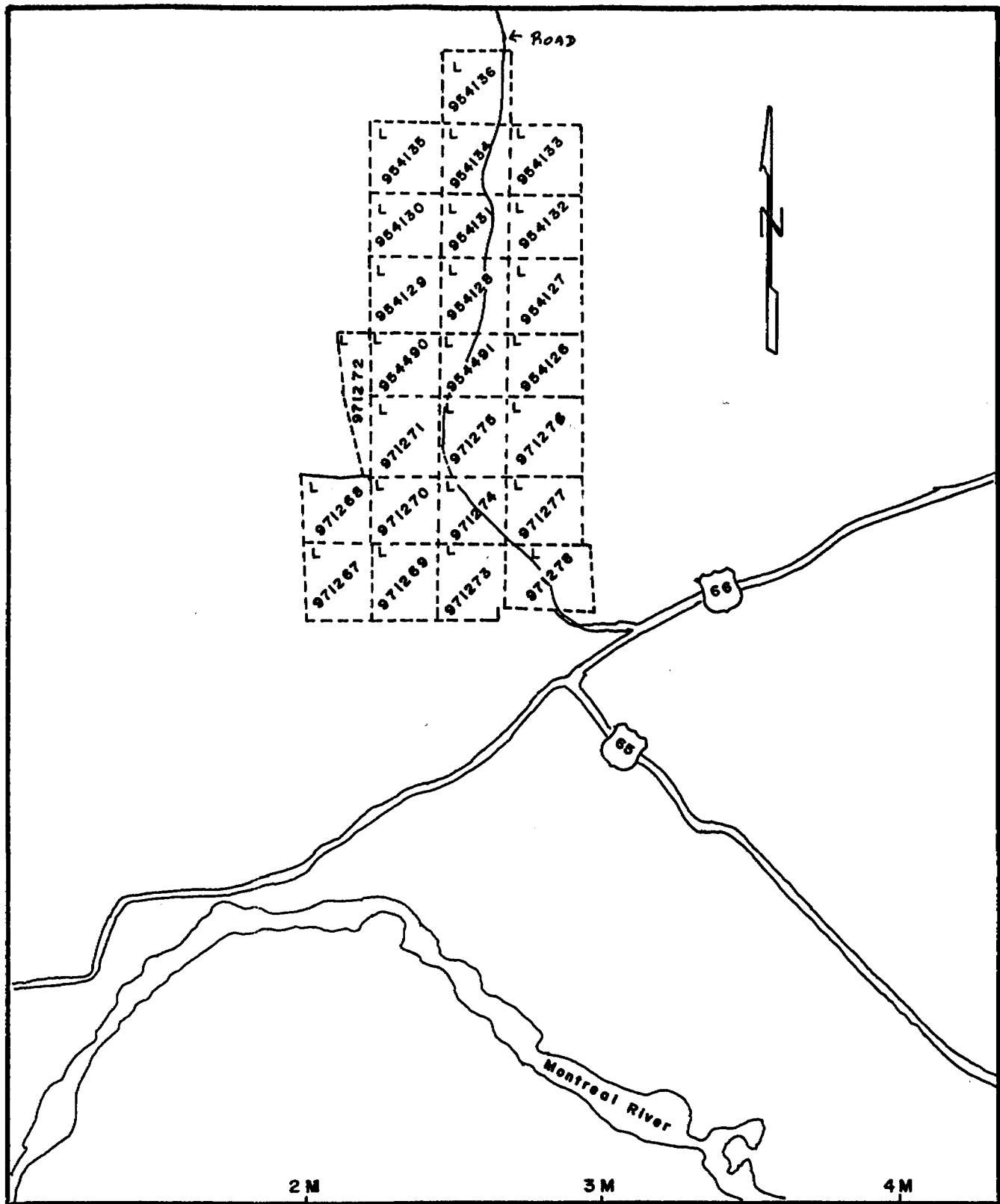
The grid was chained utilizing the Imperial system. Grid lines were established in a north-south direction at 400 feet intervals with pickets at 100 feet intervals.



PROPERTY LOCATION

Scale 1"=32 miles

FIGURE 1



CAIRO TOWNSHIP

PORTION OF CLAIM MAP G - 3209

Scale 1" = 1/2 mile

FIGURE 2

GRID (Cont'd)

Base lines and tie lines were established as required to control the grid. The total line miles of lines is presented in Appendix 1 which contains copies of Ontario Department of Natural Resources assessment work forms.

REGIONAL GEOLOGY

The regional geology of the area is shown on Figure 3 which is a portion of the Ontario Department of Natural Resources Map 2205. The area is underlain by mafic volcanics, Timiskaming sediments, and Gowganda formation sediments. South edge of a large syenite batholith underlies the north part of Cairo Township.

The volcanic rocks strike in a east-west direction. Dips are steep to vertical. Three major sets of regional faults with strike directions of north northeast, and northwest, occur in the area.

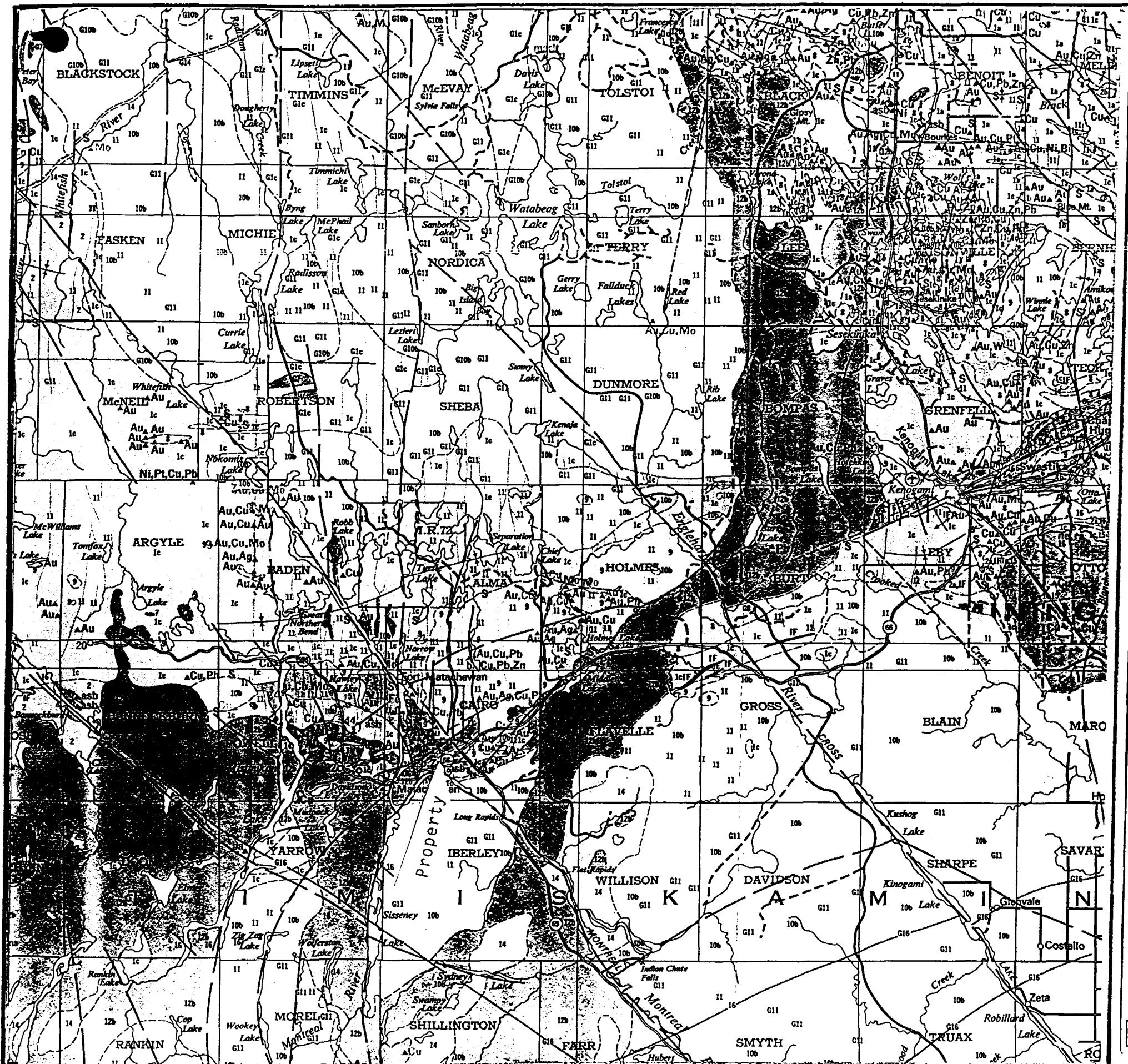
Copper, silver, lead, gold and molybdenum showings have been reported in the area.

PREVIOUS WORK

The only reported exploration work in the assessment work files of the Ontario Department of Natural Resources, Kirkland Lake, concerning the property is file #53:

Cairo Twp File #53 Landry L. 1984

The work consisted of trenching in the south-west corner of the present claim #L954127. The trench was 30' long, 6' wide and 5' deep. No other information is available.



LEGEND

CENOZOIC

PLEISTOCENE AND RECENT
Till, varved clay, sand, gravel, peat.

UNCONFORMITY

MESOZOIC

19 Kimberlite: dikes.

INTRUSIVE CONTACT

PALEOZOIC

LOWER AND MIDDLE SILURIAN

18 Thorntoe Formation: limestone, dolomite, sandstone.
Wabi Formation: limestone, shale.

MIDDLE AND UPPER ORDOVIANIC

17 Dawson Point Formation: shale.
Farr Formation: limestone.
Bucke Formation: limestone, shale.
Guigues Formation: sandstone.

UNCONFORMITY

PRECAMBRIAN

LATE PRECAMBRIAN MAFIC INTRUSIVE ROCKS

16 Diabase: dikes.

INTRUSIVE CONTACT

MIDDLE PRECAMBRIAN ALKALIC INTRUSIVE ROCKS

15 Syenite, nepheline syenite.

MAFIC INTRUSIVE ROCKS^a

14 Diabase, granophyre: sheets and dikes.

INTRUSIVE CONTACT

HURONIAN SUPERGROUP COBALT GROUP Lorrain Formation

13 Quartzite, arkose.

Gowganda Formation

12 Unsubdivided.
12a Firstbrook Member: argillite, greywacke, siltstone, arkose.
12b Coleman Member: conglomerate, arkose, greywacke, quartzite, argillite.

UNCONFORMITY

EARLY PRECAMBRIAN MAFIC INTRUSIVE ROCKS^b

11 Diabase: dikes.

INTRUSIVE CONTACT FELSIC INTRUSIVE ROCKS^c

10a Quartz porphyry, quartz-feldspar porphyry, feldspar porphyry, granophyre, felsited trondjemite, granodiorite, quartz monzonite: simple batholiths and stocks.

10b Trondjemite, granodiorite, quartz monzonite, quartz diorite, aplite, pegmatite, migmatite: complex batholiths.

10c Trondjemite, granodiorite, quartz monzonite, quartz diorite, aplite, pegmatite, migmatite: complex batholiths.

9 Syenite, monzonite, feldspar porphyry.

METAMORPHOSED MAFIC AND ULTRAMAFIC ROCKS^d

8 Gabbro, diorite, lamprophyre.

7 Peridotite, dunite, pyroxenite, serpentinitized.

INTRUSIVE CONTACT

METASEDIMENT^e

6 Conglomerate, greywacke, siltstone, slate, argillite.

5 Greywacke, siltstone, slate, argillite and minor pebble conglomerate.

METAVOLCANICS^f

ALKALIC METAVOLCANICS^g

4 Trachyte, leucitic trachyte; flows, tuff, breccia.

ULTRAMAFIC METAVOLCANICS^h

3 Serpentinized dunite and peridotitic flows.

FELSIC METAVOLCANICS^j

2 Unsubdivided.

2a Pyroclastic rocks.

2b Flows.

1 Unsubdivided.
1a Intermediate flows.
1b Intermediate pyroclastic rocks.
1c Mafic flows and pyroclastic rocks.

IF Iron formation and ferruginous chert (occurs as a member of stratigraphic units 1, 2, 4, and 5).

S Sulphide mineralization.

SYMBOLS

Geological boundary.

Synclinal axis.

Anticlinal axis.

Fault.

Lineament.

1500' Altitude in feet above mean sea level.

Railway with station or flagstop.

Provincial highway.

Motor road.

Other road.

Producing mine.

Past producing mine.

Mineral occurrence.

Figure 3

MAGNETOMETER SURVEY

The magnetometer survey was completed utilizing a proton magnetometer capable of reading total field values to an accuracy of ± 1 gamma. The main base station was established at BL 0 + 00 with the value of 59,273 gammas. Secondary base stations were established at 50' intervals along the base line and tie lines to provide data for diurnal corrections. Diurnal variation was corrected by tieing into the base stations at time intervals less than 55 minutes. Maximum misclosure was 74 gammas. Appendix 1 gives the details regarding specific instrument used and the total number of magnetic readings taken.

VLF - EM16 ELECTROMAGNETIC SURVEYS

The electromagnetic surveys were completed utilizing a VLF-EM16 unit manufactured by Geonics Ltd. The following two readings were taken over the entire grid at 50 feet intervals.

1. NAA Cutler, Maine Frequency 17.8 kHz
2. NSS Annapolis, Maryland Frequency 21.4 kHz

Additional information is provided in Appendix 1.

SURVEY RESULTS - MAGNETOMETER

The main base station was located at BL 0 + 00 with the value of 59,273 g; maximum magnetic relief within the property is 2,533 gammas. In general, magnetic relief is 500 gammas. Prominent N-S magnetic low feature occurs in the middle of the property (L 20 + 00 W 50 + 50 N - L24 + 00W 36 + 00S) and corresponds to the McDonnel Creek Fault.

SURVEY RESULTS - MAGNETOMETER (Cont'd)

The following three linear magnetic highs could be caused due to the presence of mafic volcanics:

1. Line 32 + 00 W 45 + 00 S to L 48 + 00 W 43 + 00 S
2. Line 28 + 00 W 4 + 40 S to L 40 + 00 W 3 + 00 S
3. Line 0 + 00 15 + 00 N to L 16 + 00 W 1 + 00 N

The other isolated magnetic highs are due to the presence of diabase dikes. The remainder of the property is underlain by an intrusive of syenite porphyry.

SURVEY RESULTS - VLF EM

The survey results are presented on maps in back pockets as follows:

Map 2 - Fraser Plot NAA Station

Map 3 - Profiles In-Phase and Quadrature NAA Station

Map 4 - Profiles In-Phase and Quadrature NSS Station

The total of 41 individual anomalies were interpreted and are labeled numerically from 1 to 41 on Map 3 in a back pocket. The following table is a summary and brief description of all anomalies detected by the present survey.

SUMMARY OF ANOMALIES

<u>ANOMALY NO.</u>	<u>LENGTH MINIMUM</u>	<u>MAXIMUM VALUE FRASER FILTER*</u>	<u>MAGNETIC CORRELATION*</u>	<u>COMMENTS</u>
1	400'	20	0	OBD ?
2	900'	50	0	OBD ?
3	600'	24	F	#2 Priority
4	200'	18	F	#2 Priority
5	200'	50	0	#2 Priority
6	200'	20	F	#2 Priority ?
7	200'	15	F	#2 Priority
8	200'	19	F	#1 Priority
9	1,400'	32	70	#1 Priority
10	600'	17	0	OBD ?
11	200'	38	0	#2 Priority
12	200'	13	0	OBD
13	600'	18	0	#2 Priority
14	2,400'	51	F	#1 Priority
15	200'	10	F	#2 Priority
16	200'	17	0	#2 Priority
17	1,200'	16	0	#2 Priority
18	200'	19	700 gammas	<u>#1 Priority</u>
19	1,500'	18	0	OBD
20	200'	12	0	#2 Priority
21	1,100'	17	200	<u>#1 Priority</u>
22	200	28	0	#2 Priority
23	600'	23	0	#2 Priority
24	1,100'	20	0	#2 Priority
25	700'	28	0	#2 Priority
26	1,600'	35	0	#2 Priority
27	200'	39	0	#1 Priority
28	200'	26	100	#1 Priority
29	700'	17	0	#2 Priority

*F = Flanking

...2

SUMMARY OF ANOMALIES (Cont'd)

<u>ANOMALY NO.</u>	<u>LENGTH MINIMUM</u>	<u>MAXIMUM VALUE FRASER FILTER*</u>	<u>MAGNETIC CORRELATION*</u>	<u>COMMENTS</u>
30	200'	10	100	#1 Priority
31	700'	43	50	#1 Priority
32	200'	12	F	#1 Priority
33	200'	16	0	#2 Priority
34	200'	15	0	#2 Priority
35	600'	29	0	#2 Priority
36	200'	20	F	#1 Priority
37	200'	24	280	#1 Priority
38	1,200'	51	0	#2 Priority
39	1,200'	66	0	#2 Priority
40	200'	14	0	#2 Priority
41	200'	16	0	#2 Priority

*F = Flanking

SURVEY RESULTS - NSS STATION

This survey confirmed anomalies No. 11, 14, 18, 19, 22, 25, 27, 29, 38, 39 and 40 detected by survey utilizing NNA station.

The only one new anomaly was detected on tie line 28 + 40 S 42 + 00 W.

CONCLUSIONS

A total 42 VLF-EM16 conductors were located during the present survey.

Anomalies 1, 2, 10, 12, 15 are probably caused by overburden conductivity.

Anomalies 9, 18, 21, 28, 30, 31, and 37 display correlation with weak to moderate (70 - 700 gammas) magnetic anomalies and probably are at least in part due to pyrrhotite.

The remainder of anomalies have no direct magnetic correlation.

RECOMMENDATIONS

All of the conductors detected by the present survey deserve further evaluation.

Prior to evaluating the conductors as potential drill targets, Consolidated NRD Resources should complete detailed geological mapping and soil sampling.

Once this data is in hand a meaningful decision can be made regarding those anomalies that require further evaluation such as drilling or trenching.

CERTIFICATE

I, Milan Hlava of the City of Timmins, Province of Ontario, Canada and the Town of Surrey, Province of British Columbia, Canada do state:

1. That I am a practising Consulting Geologist with offices at 24 Pine Street South, P. O. Box 1163, Timmins, Ontario P4N 7H9 and 14746 90A Avenue, Surrey, B. C. V3R 1B2.
2. That I am a graduate of Komensky University, Bratislava, Czechoslovakia (1968) with a degree of Bachelor of Science in Exploration Geology.
3. That I have practised my profession as a Geologist continuously since 1968 and as a Consulting Geologist continuously since 1984.
4. That I am a Fellow of the Geological Association of Canada since 1972.
5. That I have no interest directly, indirectly nor anticipated in Consolidated NRD Resources Ltd. or the property reported in this report.
6. That I am familiar with the material contained in this report, having examined all the material myself and visited the property myself in the field.
7. That the conclusions reached in this report are my own.
8. That I authorize Consolidated NRD Resources Ltd. to utilize this report in whole or in part in submissions made to the Securities Commission.

Respectfully submitted,

Milan Hlava
Milan Hlava B.Sc., F.G.A.S.
Consulting Geologist

*2nd
2.357*

APPENDIX 1

ONTARIO DEPARTMENT OF NATURAL RESOURCES

ASSESSMENT WORK FORMS



Ministry of
Northern Development
and Mines

L.M.
Report of Work

(Geophysical, Geological,
Geochemical and Expenditures)

#007 2.10706

Mining Act

EVIDENCE No.

W8808-007/88

- Instructions: — Please type or print.
— If number of mining claims traversed exceeds space on this form, attach a list.

- Note: — Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
— Do not use shaded areas below.

Type of Survey(s)

Magnetometer, VLF- EM 16

Township or Area

Cairo Twp

Claim Holder(s)

Consolidated NRD Resources Ltd.

Prospector's Licence No.

T5017

Address

305-535 Thurlow Street, Vancouver, B.C. V6E 3L2

Survey Company

Laforest-Hlava Exploration Services Ltd.

Date of Survey (from & to)

06	08	87	05	09	87	Total Miles of line Cut
Day	Mo.	Yr.	Day	Mo.	Yr.	

Name and Address of Author (of Geo-Technical report)

Milan Hlava, 24 Pine St South, P.O. Box 1163, Timmins, Ontario P4N 7H9

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	40
RECEIVED	- Magnetometer	20
For each additional survey: using the same grid: Enter 20 days for each	- Radiometric	
JAN 18 1988	- Other	
	Geological	
	Geochemical	
Man Days	Geophysical	Days per Claim
Complete reverse side and enter total here	- Electromagnetic	
RECEIVED	- Magnetometer	
JAN 8 1988	Radiometric	
9:00AM	- Other	
<i>[Signature]</i>	Geological	
	Geochemical	
Airborne Credits	Days per Claim	
- Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures	\$	÷	15	=	Days Credits
--------------------	----	---	----	---	--------------

Instructions

Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date	Recorded Holder or Agent (Signature)
Nov. 3/87	<i>Milan Hlava</i>

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying

Milan Hlava, 24 Pine S. P.O. Box 1163, Timmins, Ontario P4N 7H9

Total number of mining claims covered by this report of work.

25

For Office Use Only		
Total Days Cr. Recorded	Date Recorded	Mining Record
1500	<i>Jan. 8/88</i>	<i>SP/36 Betti</i>
	Date Approved as Recorded	Branch Director
	<i>See Reverse Statement</i>	<i>[Signature]</i>
	Date Certified	Certified by (Signature)
	Nov. 3, 1987	<i>Milan Hlava</i>



Ontario

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines



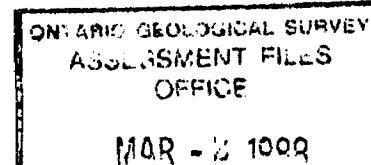
41P15NE8317 2.10706 CAIRO

900

February 8, 1988

Your File: W8808-007
Our file: 2.10706

Mining Recorder
Ministry of Northern Development and Mines
4 Government Road East
Kirkland Lake, Ontario
P2N 1A2



Dear Sir:

RE: Notice of Intent dated January 21, 1988
Geophysical (Magnetometer and Electromagnetic) Survey
submitted on Mining Claims L 971267 et al in Cairo Township

The assessment work credits, as listed with the above-mentioned
Notice of Intent, have been approved as of the above date.

Please inform the recorded holder of these mining claims and so
indicate on your records.

Yours sincerely,

W.R. Cowan, Manager
Mining Lands Section
Mines and Minerals Division

Whitney Block, Room 6610
Queen's Park
Toronto, Ontario
M7A 1W3

Telephone: (416) 965-4888

SH:p1
Enclosure: Technical Assessment Work Credits

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario

Resident Geologist
Kirkland Lake, Ontario

Consolidated NRD Resources Ltd.
Suite 305
535 Thurlow Street
Vancouver, B.C.
V6E 3L2



Ministry of
Northern Development
and Mines

Technical Assessment
Work Credits

File
2.10706

Date
January 21, 1988

Mining Recorder's Report of
Work No.
W8808-007

Recorded Holder

Consolidated NRD Resources Ltd.

Township or Area

Cairo Township

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic _____ 40 _____ days	L 971267 to 278 inclusive 954126 to 129 inclusive 954131 to 136 inclusive 954490-91
Magnetometer _____ 20 _____ days	
Radiometric _____ days	
Induced polarization _____ days	
Other _____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological _____ days	
Geochemical _____ days	
Man days <input type="checkbox"/>	Airborne <input type="checkbox"/>
Special provision <input checked="" type="checkbox"/>	Ground <input checked="" type="checkbox"/>
<input type="checkbox"/> Credits have been reduced because of partial coverage of claims.	
<input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

20 Days Electromagnetic
10 Days Magnetometer

L 954130

No credits have been allowed for the following mining claims

not sufficiently covered by the survey insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40; Section 77(19) - 60.

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. - MINING RIGHTS ONLY

S.R.O. - SURFACE RIGHTS ONLY

M.+S. - MINING AND SURFACE RIGHTS

Description Order No. Date Disposition File

(R) MINING AND SURFACE RIGHTS NOT OPEN
TO STAKING. APPLICATION UNDER SECTION 3(b)
JUNE 12 1987.

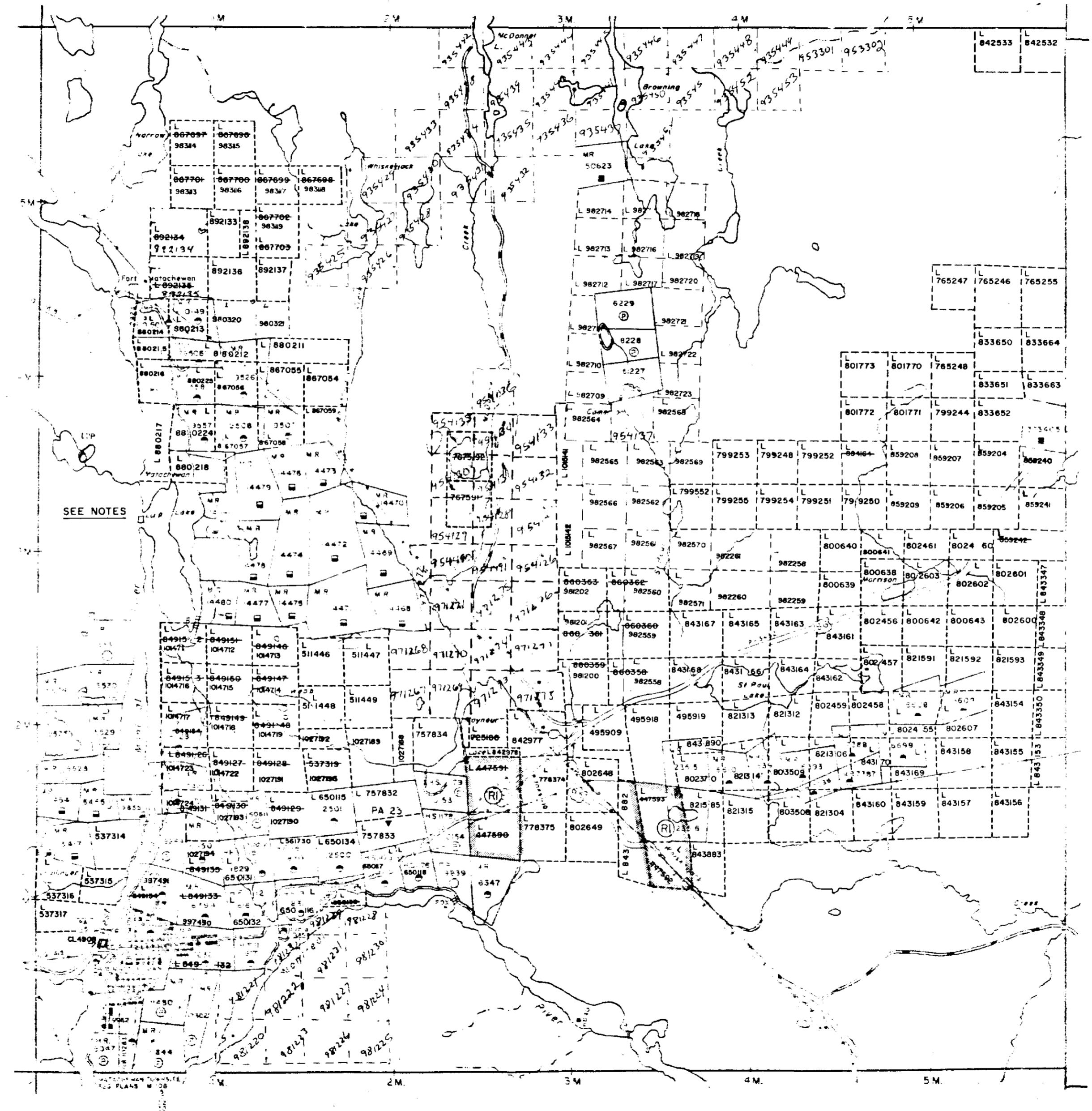
GL 4808 - PENDING APPLICATION UNDER PUBLIC LANDS ACT

AND USE PERMIT

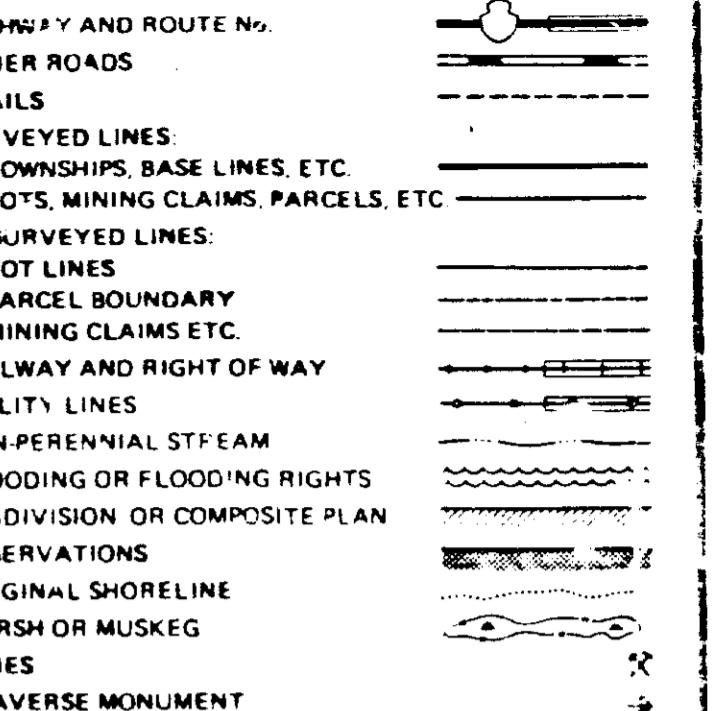
NOTES

AREA WEST OF WEST MONTREAL RIVER
CLOSED TO STAKING SUBJECT TO SEC. 38(1)
OF THE MINING ACT, 20 SEPT. 1978.

Alma Twp.



Kimberley Twp.



DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	
" SURFACE RIGHTS ONLY	
" MINING RIGHTS ONLY	
LEASE, SURFACE & MINING RIGHTS	
" SURFACE RIGHTS ONLY	
" MINING RIGHTS ONLY	
LICENCE OF OCCUPATION	
ORDER-IN-COUNCIL	
RESERVATION	
CANCELLED	
SAND & GRAVEL	

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 1, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, P.C. 1970 CHAP. 380, SEC. 63, SUBSEC.

SCALE: 1 MILE = 40 CHAINS

FETT 0 1000 2000 4000 6000 8000
0 200 400 600 800 METRES 1 KM (2 MI)

DATE OF ISSUE

JU 27 1987

TOWNSHIP

CAIRO LARDER LAKE MINING RECORDER'S OFFICE

M.N.R. ADMINISTRATIVE DISTRICT

KIRKLAND LAKE

MINING DIVISION

LARDER LAKE

LAND TITLES / REGISTRY DIVISION

TIMISKAMING

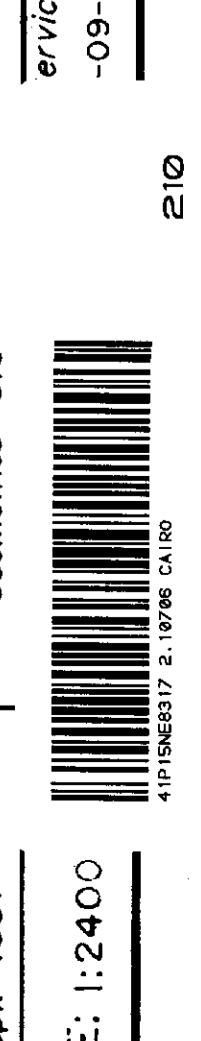
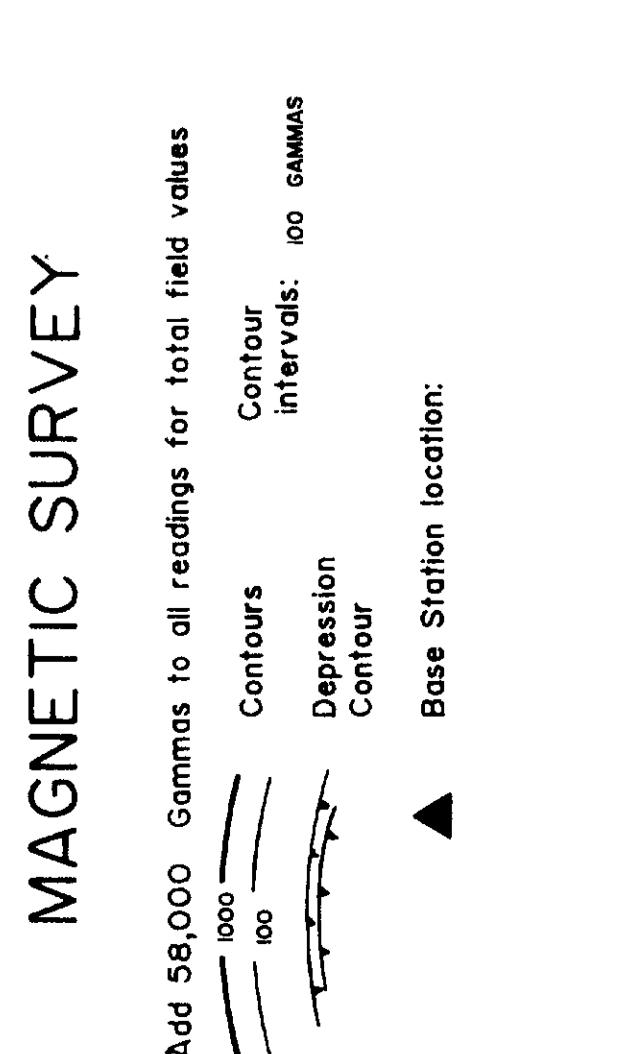
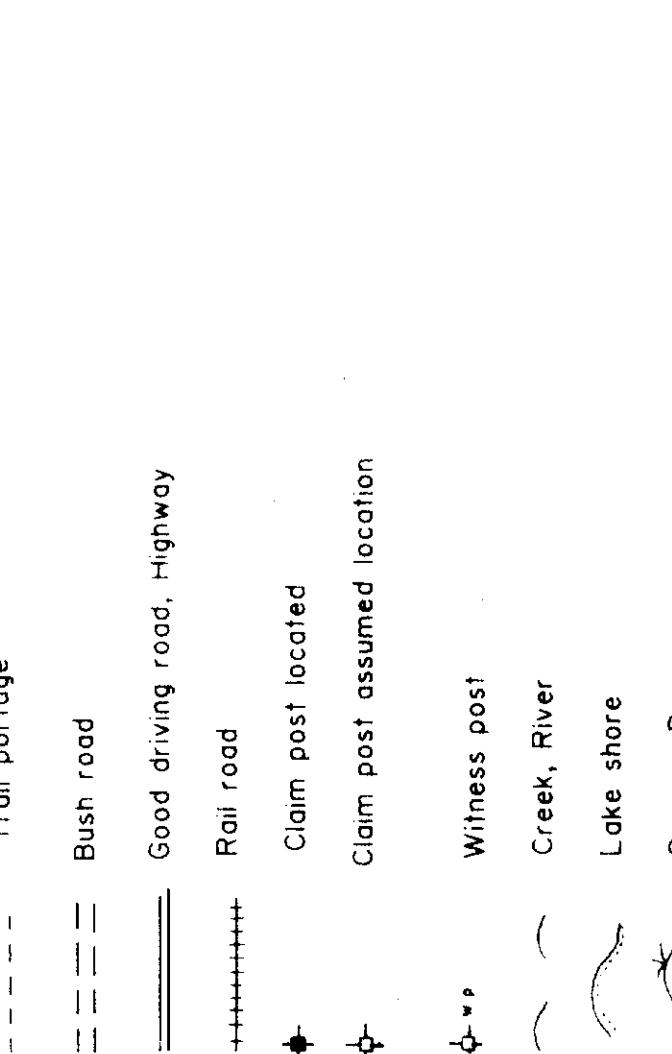
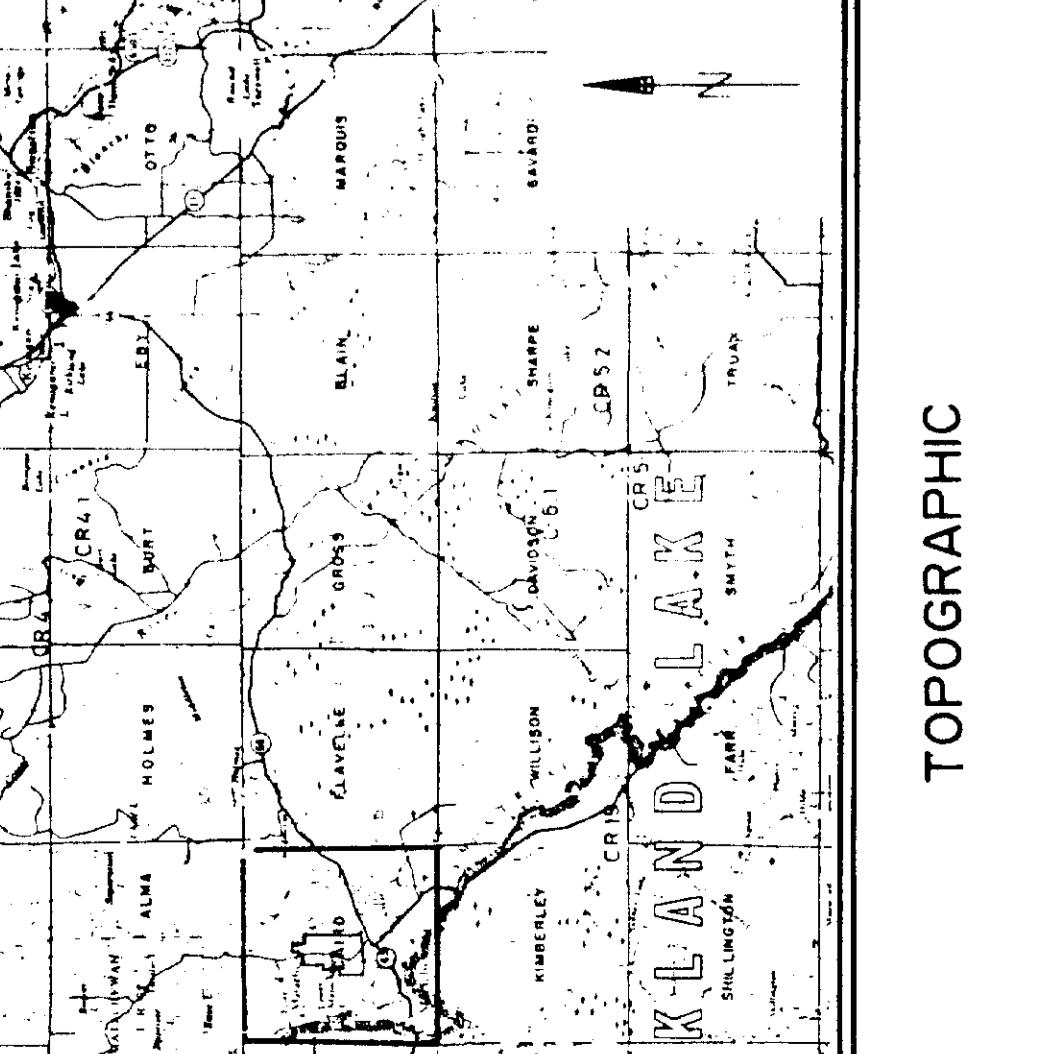
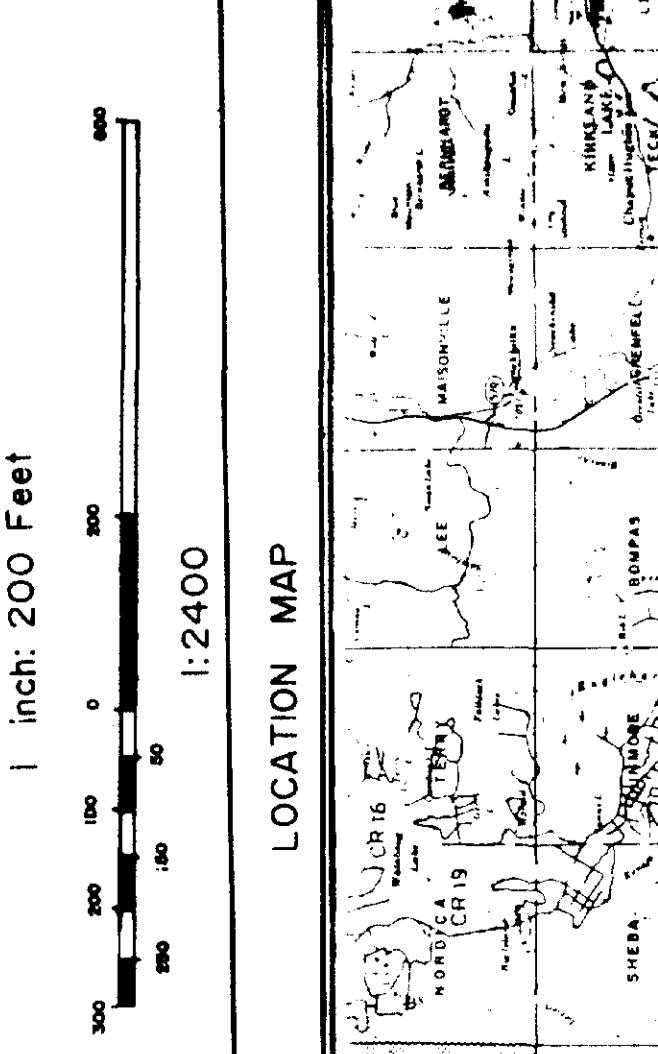
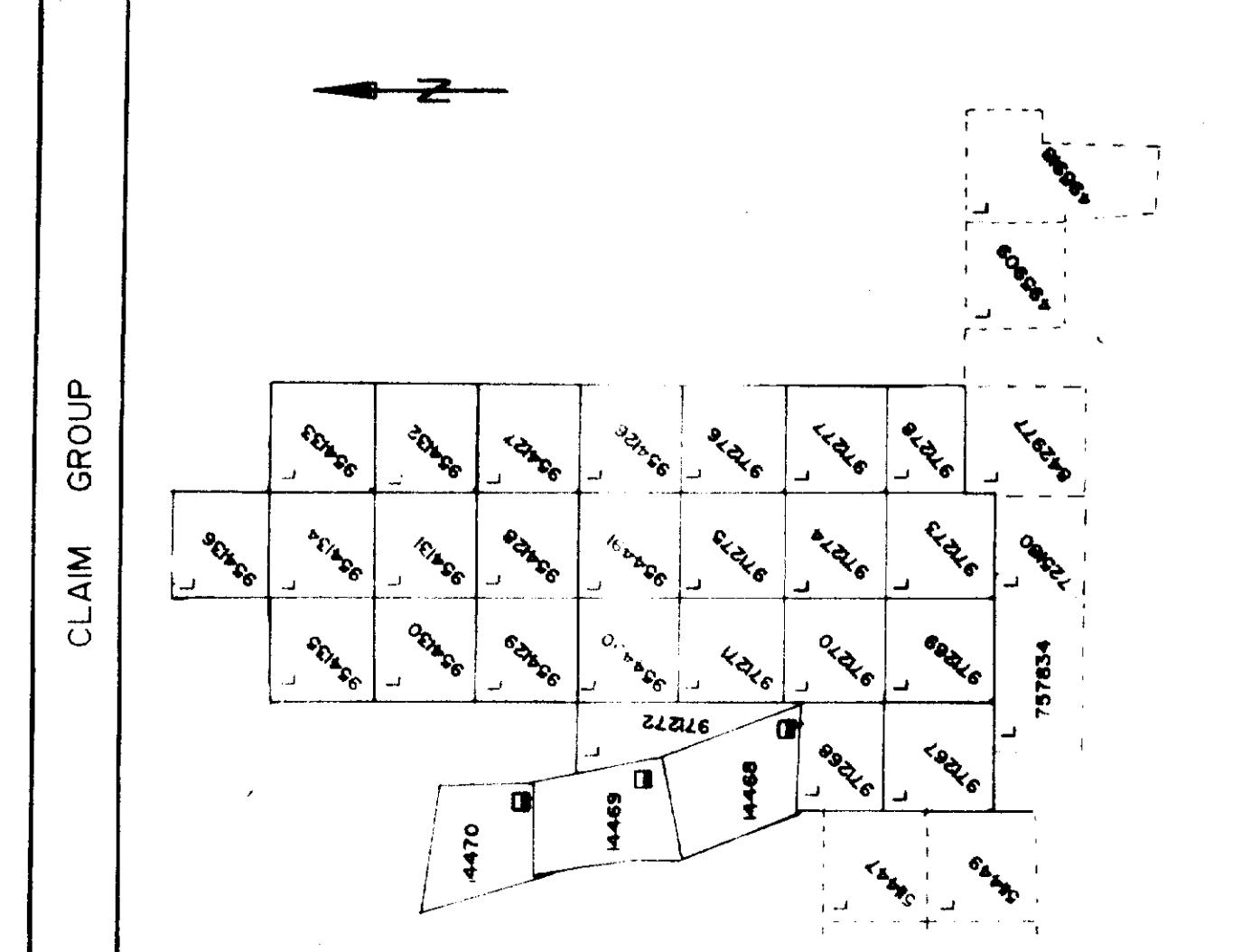
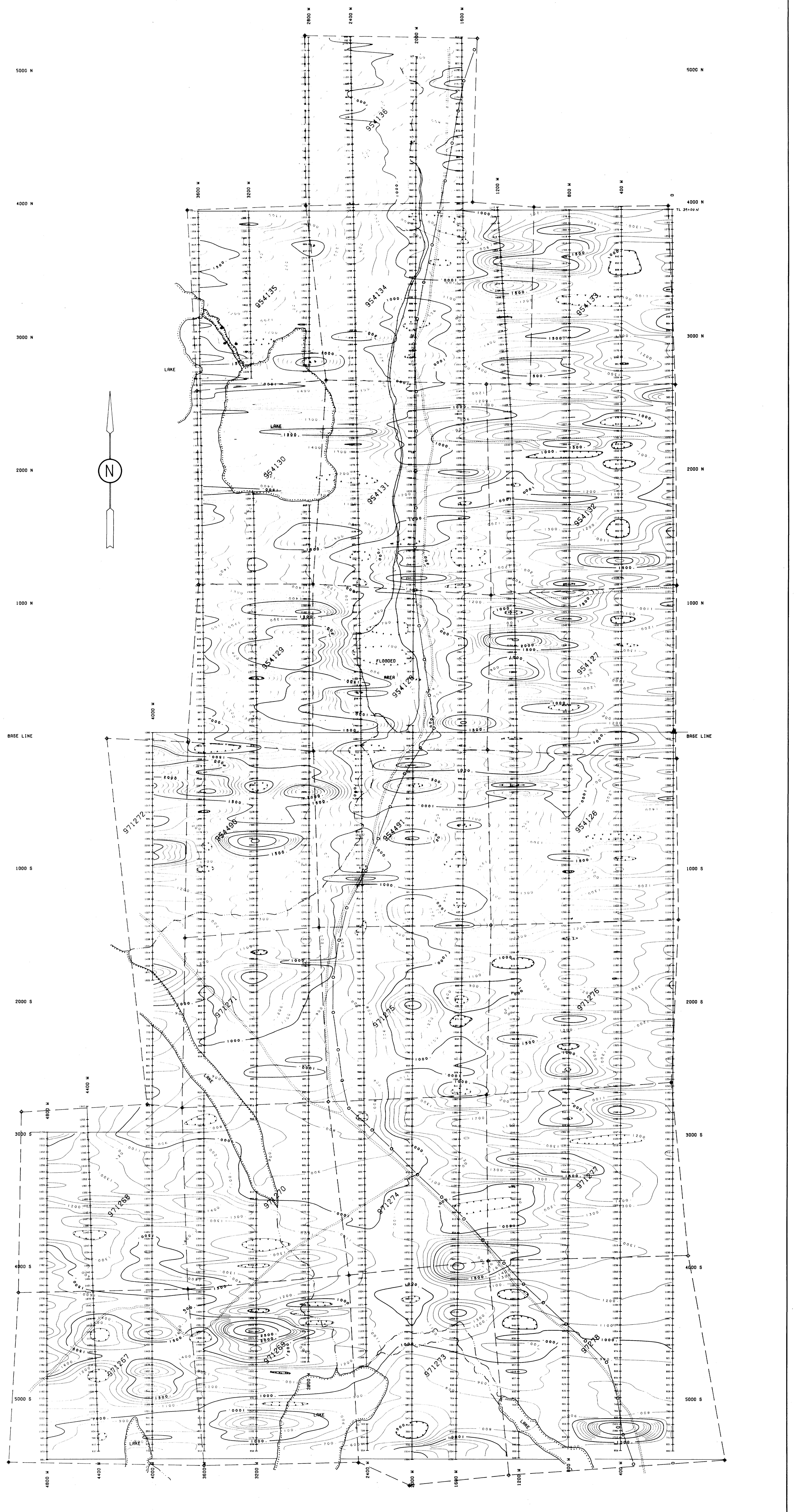


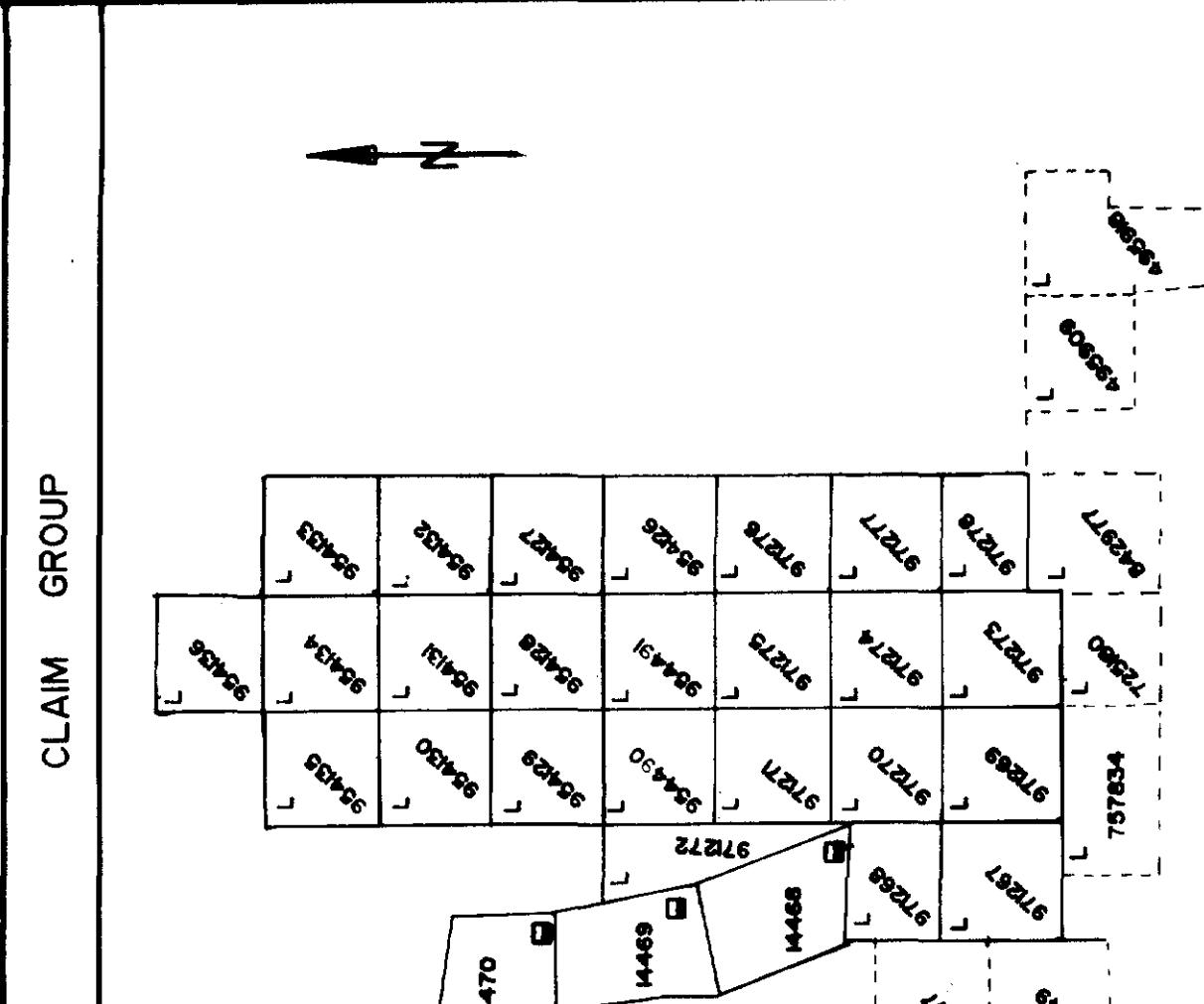
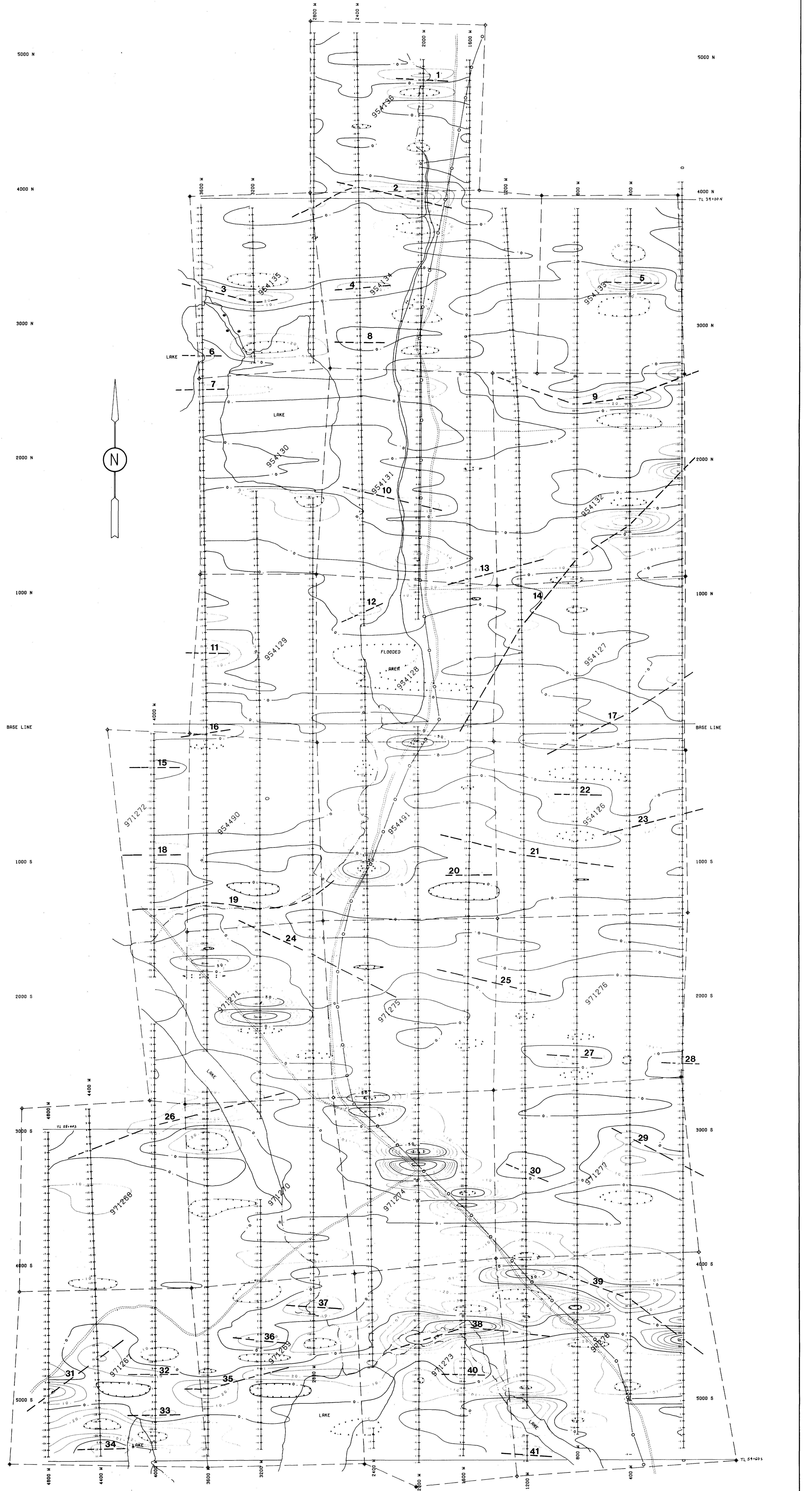
Ministry of
Natural
Resources

Ministry of
Northern Development
and Mines

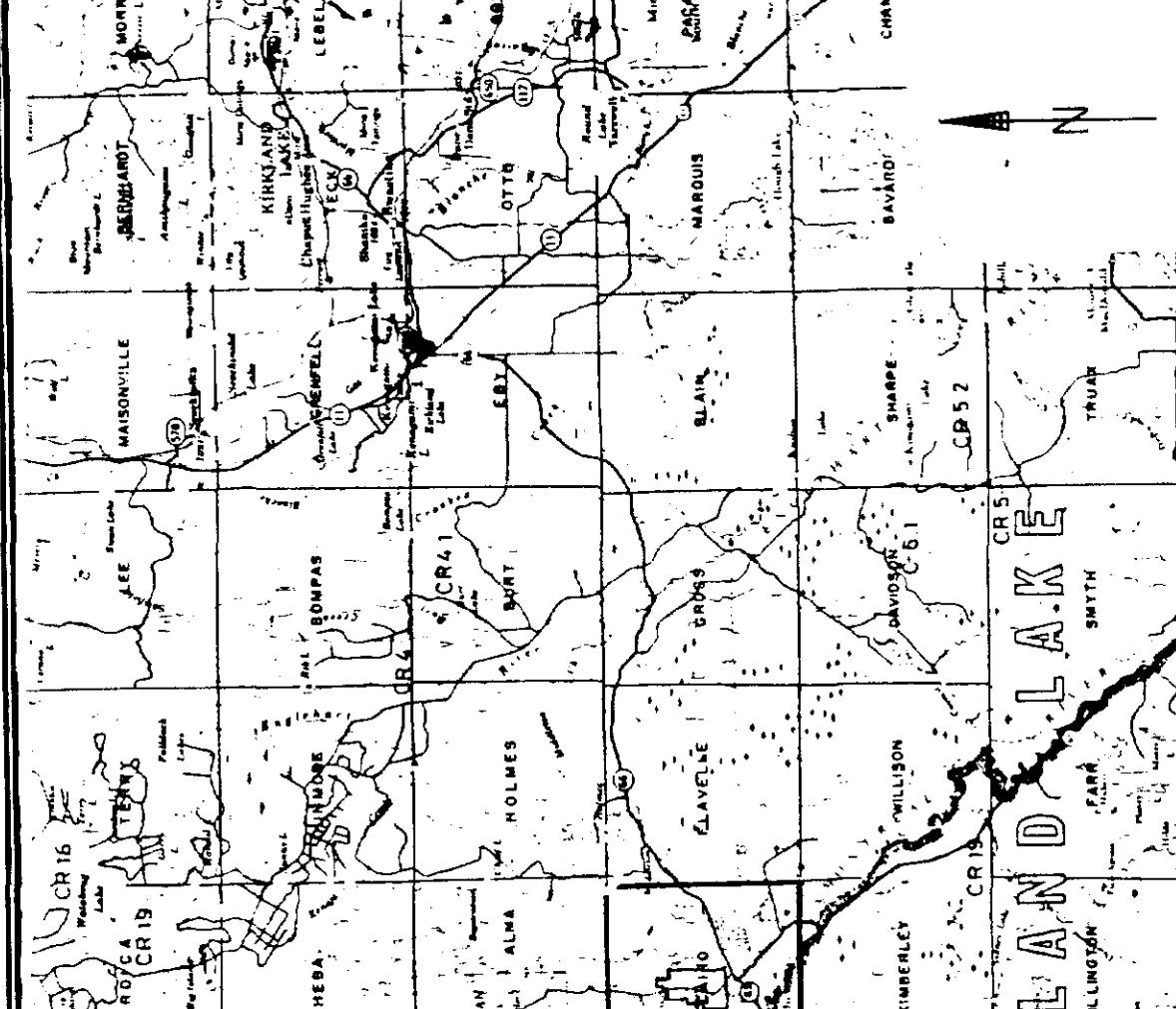
Date JULY 1986 Number G-3209







1 inch = 200 Feet
1:2000
LOCATION MAP



TOPOGRAPHIC
Legend:
- - - Trail or path
- - - Bush road
- - - Good driving road, Impenetrable
+ + + + Rail road
+ + + + Claim post located
Claim post assumed location
+ Witness post
Creek, River
Lake shore
Swamp, Bog
Property boundary line
○ ○ Power line

FRASER FILTER

STATION: CUTLER NAA (240 KHz)
Contours Every 10%
MAP 2

NRD CONSOLIDATED RESOURCES LTD
CAIRO TOWNSHIP PROPERTY
Survey by: Lofstrand-Harva Exploration Services Ltd
Date of Survey: Aug - Sep 1987
Instrument: Geonics EM - 16
Scale: 1:20000
Barcode: 20000000000000000000000000000000

