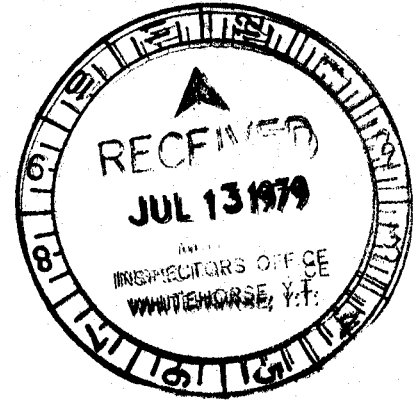




MACMILLAN JOINT VENTURE  
GEOPHYSICAL SURVEYS  
MARCH - APRIL, 1979  
SUE CLAIMS  
WHITEHORSE MINING DISTRICT  
N.T.S. 105 L 10, 11, 14, 15



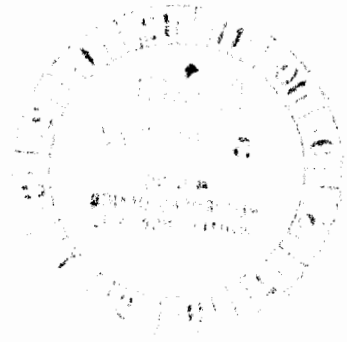
135°00' W Longitude  
~~62°00'~~ N Latitude  
62°45'

FIELD SUPERVISION BY F. A. HODGKINSON

Toronto, Ontario  
June 14, 1979

C. K. O'Connor, P.Eng.

090478



This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of

\$ 28,300.00

J A Main

A/ Resident Geologist or  
Resident Mining Engineer

Considered as representation work under  
Section 53 (4) Yukon Quartz Mining Act.

B R BAXTER  
Supervising Mining Recorder

Commissioner of Yukon Territory

TABLE OF CONTENTS

	<u>Page</u>
SUMMARY . . . . .	1
CONCLUSIONS AND RECOMMENDATIONS . . . . .	2
INTRODUCTION . . . . .	3
LOCATION AND ACCESS . . . . .	4
Figure I - Location Map . . . . .	7
GENERAL GEOLOGY . . . . .	8
PREVIOUS WORK . . . . .	10
DESCRIPTION OF METHOD AND EQUIPMENT . . . . .	11
DISCUSSION OF RESULTS . . . . .	12
Figure II - Grid Locations . . . . .	16
Figure III - Clear Lake East Grid . . . . .	17
Figure IV - Grid 1E . . . . .	18
Figure V - Grid 2E . . . . .	19
Figure VI - Grid 3E . . . . .	20
Figure VII - Grid 4E . . . . .	21

APPENDICES

APPENDIX I - APEX MAXMIM II EM SYSTEM SPECIFICATIONS
APPENDIX II - PERSONNEL
APPENDIX III - LINECUTTING, RECHAINING AND GEOPHYSICAL WORK
APPENDIX IV - STATEMENT OF EXPENDITURES
APPENDIX V - CALCULATION OF UNIT COSTS
APPENDIX VI - CERTIFICATE
APPENDIX VII - MAPS (Separate Folder)



(ii)

LIST OF MAPS IN FOLDER

GRID - CLEAR LAKE EAST

EM Survey 444 Hz	1 map	1" = 200'
EM Survey 1777 Hz	1 map	1" = 200'

GRID 1E

EM Survey 444 Hz	1 map	1" = 200'
EM Survey 1777 Hz	1 map	1" = 200'
Magnetometer Survey	1 map	1" = 200'

GRID 2E

EM Survey 444 Hz	1 map	1" = 200'
EM Survey 1777 Hz	1 map	1" = 200'
Magnetometer Survey	1 map	1" = 200'

GRID 3E

EM Survey 444 Hz	1 map	1" = 200'
EM Survey 1777 Hz	1 map	1" = 200'
Magnetometer Survey	1 map	1" = 200'

GRID 4E

EM Survey 444 Hz	1 map	1" = 200'
EM Survey 1777 Hz	1 map	1" = 200'

SUMMARY

This report describes the results of electromagnetic and magnetometer surveys carried out by Conwest Exploration Company Limited during March and April 1979 on selected airborne EM anomalies on the Sue claim group located approximately 150 miles north of Whitehorse, Y.T.

Four of the five selected targets were located on the ground. The undetected conductor was probably deeper than the penetration limits of the ground EM system used.

CONCLUSIONS AND RECOMMENDATIONS

The anomalies as defined by the ground surveys indicate genuine buried bedrock sources caused by sulphides and/or graphite. They all continue across the entire grid surveyed and probably represent stratigraphic horizons.

Conductivity and thickness indications suggest a potential for large sulphide zones.

Further exploration is warranted.

Gravity surveys would be a useful technique to further evaluate the anomalies prior to diamond drilling. Geochemistry is not expected to be of any assistance because of thick recent alluvium.

*Respectfully submitted,*  
*H. C. Connor*  
  
14/8/79

The seal is circular with the text "REGISTERED PROFESSIONAL ENGINEER" around the top and "PROVINCE OF ONTARIO" around the bottom. The name "H. C. Connor" is written across the seal, and the date "14/8/79" is written below it.

## INTRODUCTION

During March and April 1979 ground EM and Magnetometer Surveys were carried out on a part of the Sue Claim Group as a follow-up to an airborne Input EM survey done in late 1978. These claims are currently held by Conwest for the MacMillan Joint Venture (Conwest Exploration Company Limited and Essex Minerals Company).

The claims were located to cover geological formations believed to be similar to those at Vangorda Creek some 70 miles to the south east.

A total of 34 miles of picket line including baselines were established on seven separate grids. These grids were established to locate and define the airborne EM conductors on the ground. Five of the seven grids are described in this report.

The work described herein was in part conducted by and under the direct on-site supervision of F. A. Hodgkinson. The writer laid out the programme and evaluated the results based on the data presented herein and discussions with Mr. Hodgkinson.

LOCATION AND ACCESS

The Sue claim group lies north of the Pelly River and south of the MacMillan River just east of their junction, 146 miles due north of Whitehorse, Yukon Territory.

There is no all-weather road access to the claims. A winter tractor road can be used from Pelly Crossing on the Klondike Highway, 156 miles north of Whitehorse, to freight supplies to the property during the period January to April, a distance of about 60 miles from the Highway. This winter road which was originally built in 1966 to Detour Lakes on the south side of the Pelly River, was extended in 1975 to the main base camp at Duo Lake in the north central part of the Sue claim group. It is normally necessary to construct an ice bridge but in this particular instance the overflow from Tummel River draining into the Pelly from the south side at the crossing point created a natural ice bridge during the 1975 freighting season.

Fixed wing aircraft access is possible by float or ski equipped planes from bases in Whitehorse or Mayo to Duo Lake, distances of 148 and 60 miles respectively.

Helicopters can be chartered from Mayo or Ross River 105 miles southeast and provide the best local access over the large claim group.

The nearest settlements are Mayo, Carmacks 66 miles southwest and Faro 70 miles southeast. The latter town was built in 1970 to support the large Anvil lead-zinc-silver mine and is connected by a new all-weather road to Carmacks on the Klondike Highway.

A potential hydro-electric site exists at Granite Canyon on the Pelly River about 35 air miles downstream from the property.

The area of the claim group is for the most part gently undulating and occupies a low saddle between the Pelly and MacMillan Rivers rising from about 1,750 ft. ASL at river level to a maximum of 2,550 ft. ASL on the highest peak. Local relief is mostly less than 500 ft. The hills and valleys are elongated westerly, parallel to the regional strike and direction of glacial ice movement.

Vegetation consisting of spruce, pine, birch, poplar and alders covered the entire property, although a major forest fire in 1970 destroyed most of it over the western two-thirds of the property. The dead timber is still mostly standing.

Other than Duo Lake, the largest on the property, most other lakes are small and drainage is poor.

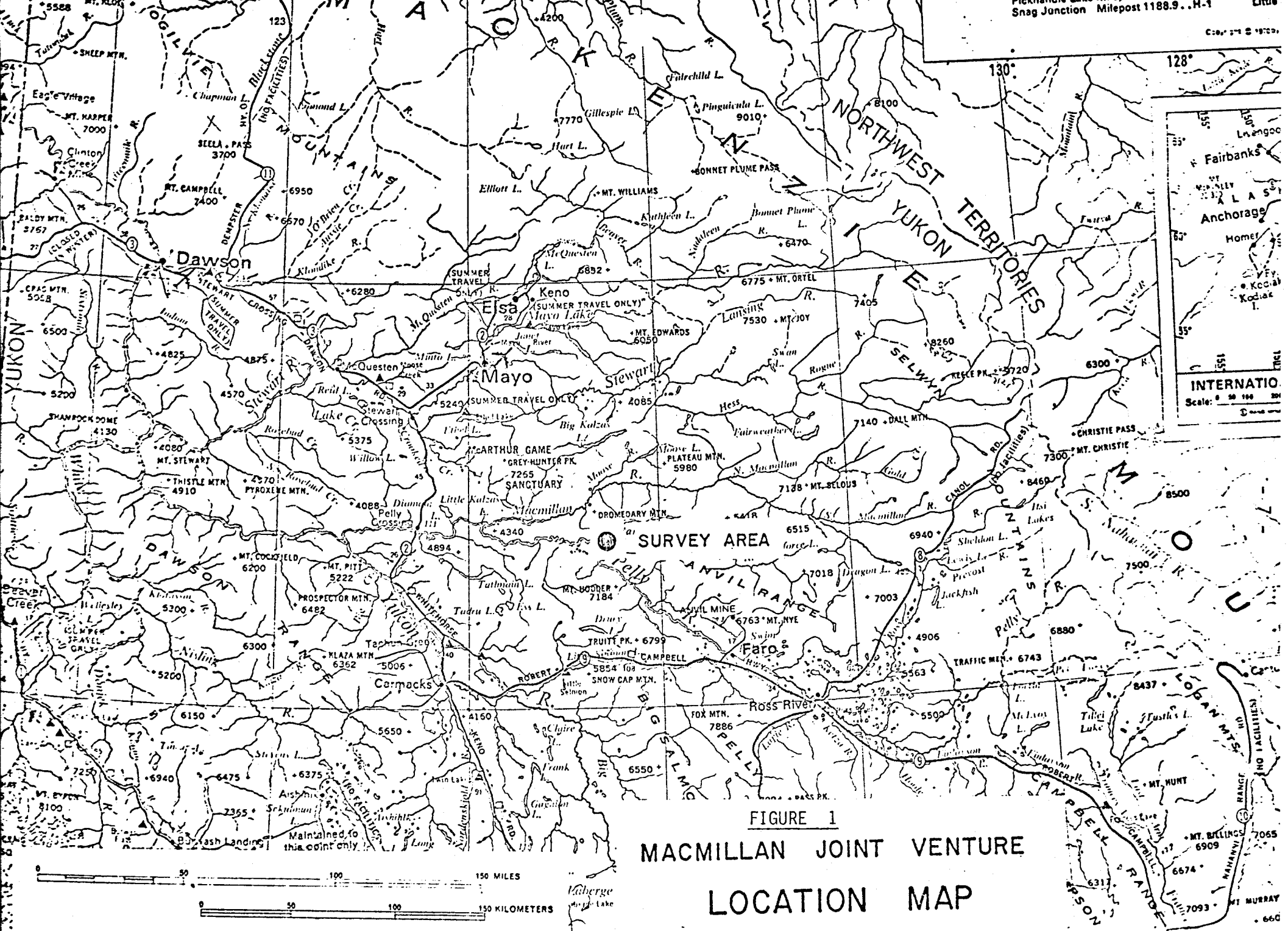


FIGURE 1

MACMILLAN JOINT VENTURE  
LOCATION MAP

## GENERAL GEOLOGY

The Glenlyon map area (105 L) was mapped by R. B. Campbell in 1949-1954 and the results of his work were published as G.S.C. Memoir 352 in 1967.

The adjoining Tay River map area (105 K) which contains all the known deposits of lead-zinc of the type sought, was mapped by Roddick and Green in 1958-1960 and published as G.S.C. Map 13-1961. In 1967 and 1968 Templeton-Kluit undertook a more detailed study of the geology and mineral deposits of the Vangorda area, the results of which were published as G.S.C. Bulletin 208 in 1972.

The area of interest comprises a belt of Proterozoic and Paleozoic sediments and volcanics which follow the northeast side of the Pelly River, the latter marking the locus of a major transcurrent fault known as the Tintina Trench.

The Vangorda area is dominated locally by the Anvil Range Batholith which has domed the stratigraphy. This granite is not exposed in the MacMillan area. The favourable horizon is a series of probable Cambrian schists and phyllites which are locally strongly graphitic. These latter rocks have been observed on the Sue claim

LIST OF MAPS IN FOLDER

GRID - CLEAR LAKE EAST

EM Survey 444 Hz

EM Survey 1777 Hz



1 map 1" = 200'

1 map 1" = 200'

GRID 1E

EM Survey 444 Hz

EM Survey 1777 Hz

Magnetometer Survey

1 map 1" = 200'

1 map 1" = 200'

1 map 1" = 200'

GRID 2E

EM Survey 444 Hz

EM Survey 1777 Hz

Magnetometer Survey

1 map 1" = 200'

1 map 1" = 200'

1 map 1" = 200'

GRID 3E

EM Survey 444 Hz

EM Survey 1777 Hz

Magnetometer Survey

1 map 1" = 200'

1 map 1" = 200'

1 map 1" = 200'

GRID 4E

EM Survey 444 Hz

EM Survey 1777 Hz

1 map 1" = 200'

1 map 1" = 200'

MacMILLAN JOINT VENTURE PROJECT

LIST OF CLAIMS TO BE RENEWED BY REPORT

DATED JUNE 14, 1979

("Geophysical Surveys, March - April 1979")

<u>Claim Name And Number</u>	<u>Grant Number</u>
SUE 2010 - 2025 (16)	YA22730 - <del>YA22953</del>
SUE 2035 - 2042 ( 8)	YA22738 - YA22745
SUE 2076 ( 1)	YA22988
SUE 2078 - 2090 (13)	YA22990 - YA23002
SUE 2095 - 2106 (12)	YA23007 - YA23018
SUE 2202 ( 1)	YA23102
SUE 2204 ( 1)	YA23104
SUE 2206 ( 1)	YA23106
SUE 2208 - 2255 (48)	YA23108 - YA23155
SUE 2365 - 2371 ( 7)	YA23265 - YA23271
SUE 2377 ( 1)	YA23277
SUE 2379 ( 1)	YA23279
SUE 2381 & 2383 ( 2)	YA23281 & YA23283
SUE 2385 - 2392 ( 8)	YA23285 - YA23292
SUE 2500 - 2503 ( 4)Frac.	YA23393 - YA23396
SUE 2505 - 2508 ( 4)Frac.	YA23397 - YA23400
SUE 2601 - 2616 (16)	YA23993 - YA24008

TOTAL NUMBER OF CLAIMS = 144

group both in outcrop and earlier drilling, and closely resemble the host rocks at Vangorda and Anvil.

Reconnaissance of the Sue claims has indicated very little outcrop is present. Overburden, however, is not locally expected to exceed 100 ft. except along the south side where high benches of glacial valley fill have been cut by the Pelly River.

Glaciation is presumed to have covered the entire claim group. Ice movement was west northwest as indicated by numerous drumlins.

PREVIOUS WORK FILED WITH THE DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT BY CONWEST EXPLORATION COMPANY LIMITED ON "SUE" CLAIM GROUP

1. Progress Report Number 1 - On Geophysical Surveys - 1975  
C. K. O'Connor and D. B. Sutherland, Conwest Exploration Company Limited.
2. Gravity Survey and Interpretation - August 1976  
J. E. Wyder, Kenting Earth Sciences Limited.
3. Gravity Survey and Interpretation - April 29, 1977  
D. Dorval and T. R. Dundas, Kenting Earth Sciences Limited.
4. Diamond Drill Logs - August 1978  
G. R. Kent, Conwest Exploration Company Limited.

DESCRIPTION OF METHOD AND EQUIPMENT

The EM survey was completed using an Apex Parametrics MAXMIN II horizontal loop EM system (instrument specifications in Appendix I). Coils were maintained at 600 ft. horizontal distances and were oriented horizontally. Readings were obtained at 100 ft. station intervals. Readings were taken at two frequencies - namely, 444 Hz and 1777 Hz.

Magnetic readings were obtained at 100 ft. station intervals using a Scintrex MF-2 fluxgate magnetometer. Readings were corrected for Diurnal variations by tying into corrected base station readings at intervals less than one-half hour.

DISCUSSION OF RESULTS

Clear Lake East

A conductor was outlined for 2,000 ft. in length with both ends remaining open. The conductor strikes N 64° W and appears to have a steep south dip.

Width of the conductor is narrow except at sections 510 + 50 W and 520 + 00 W where a width in the order of 100 ft. is indicated. Conductivity is poor. A spot check with the magnetometer along conductor axis did not indicate a magnetic correlation.

The top of the conductor appears to be less than 100 ft. in depth.

Probable cause of conductor is graphitic sediments of pyrite.

A second narrow conductor was located on Section 525 + 50 W, 1,200 ft. south of the first conductor. It appears this response represents the southeast extremity of an anomaly that extends in a northwest direction. In order to obtain additional information on this conductor, the grid would have to be extended to the northwest.

Conductivity is poor.

Grid 1E

One conductor striking N 79° E was outlined for a length of 4,000 ft. Both ends of the conductor remain open.

The width of the conductor varies from 10 ft. to 200 ft. The greatest widths are on Sections 8E to 16E inclusive and on 36E to 40E.

Conductivity is good to excellent. Dip appears to be vertical to steeply south.

There is no direct magnetic correlation with the EM response. On Sections 16E and 20E and situated 200 ft. north of the conductor there is a 2,500 gamma magnetic linear.

Grid 2E

A conductor was traced across the entire grid for a length of 6,000 ft. and both ends remain open. It is uniform in width in the order of 50 ft. Conductivity is fair to excellent. Strike of the conductor is N 64° W.

There is no direct magnetic correlation, however on Sections 4E to 28 W there is a magnetic closure to the north of the conductor, that may represent a basic intrusive.

Depth to the top of the conductor on Sections 12 W, 8 W and 4 W appears to be 75 to 100 ft. Depths for the remainder of the conductor probably are 200 ft. or more.

The length of the conductor suggests the cause as a graphitic horizon.

#### Grid 3E

A single conductor was outlined for a definite strike length of 1,000 ft. in the channel of the Pelly River and probably extends 800 ft. in a northwest direction. The conductor remains open to the southeast. Strike of the conductor is N 64° W and appears to have a vertical to steep south dip. Maximum width is 25 ft. The southeast half of the conductor exhibits the best conductivity, described as good to excellent.

The depth to the top of the conductor appears to be 100 to 150 ft.

There is no direct magnetic correlation.

Cause of the conductor is either pyrite or graphite.

Grid 4E

Survey utilizing a 600 ft. coil separation failed to indicate any conductive zones.

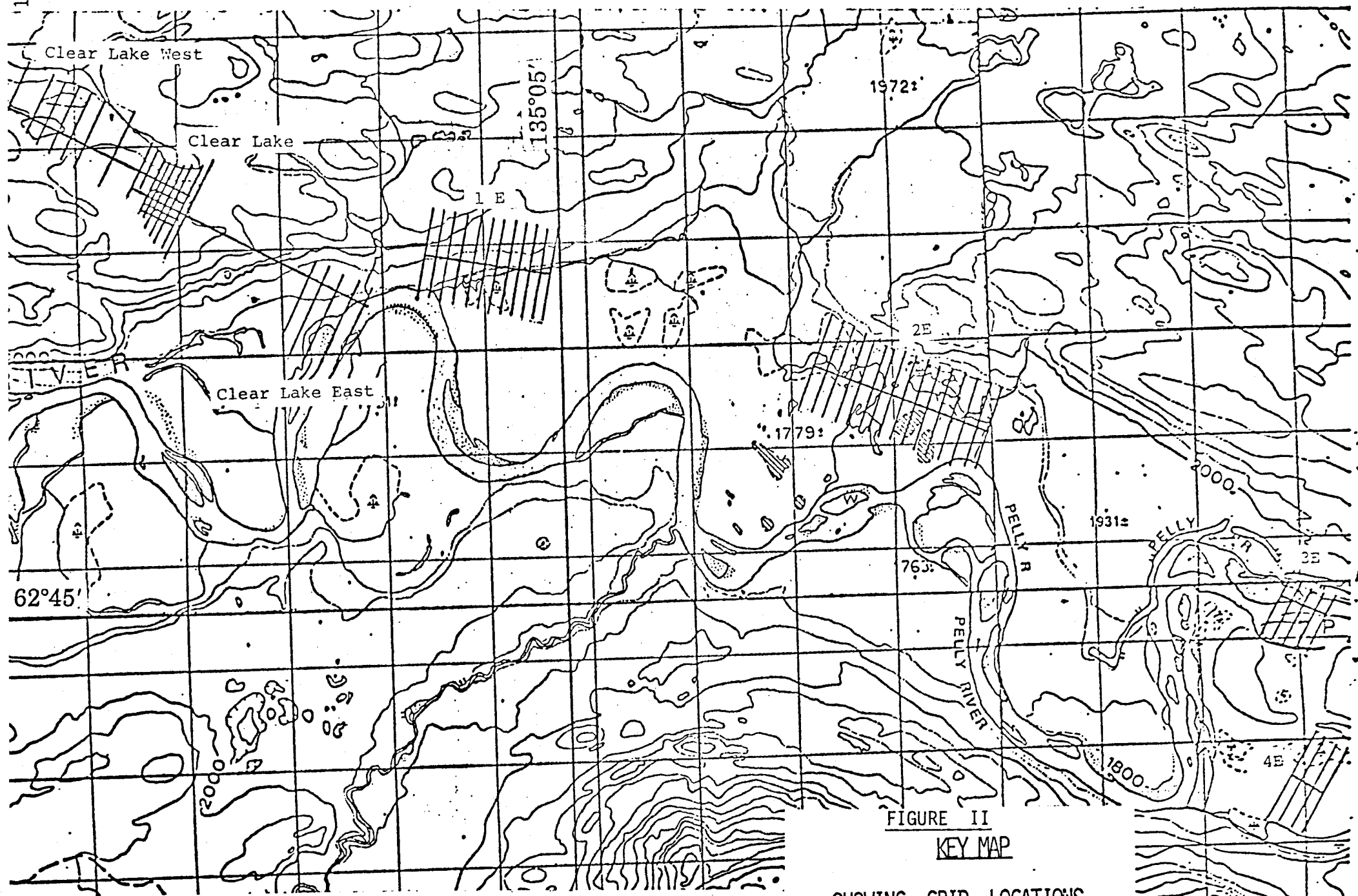
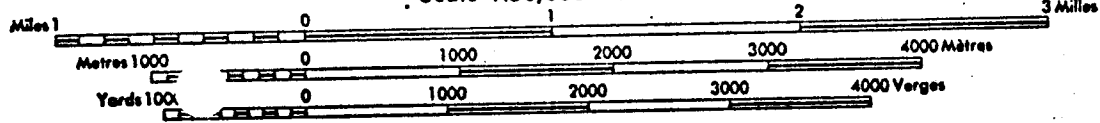


FIGURE II  
KEY MAP

SHOWING GRID LOCATIONS

Scale 1:50,000 Échelle



NTS- 25 V/10  
& 35 V/14

YA 22959	YA 22960	YA 22967	YA 22968	Y 81295	Y 81296	Y 81315	Y 81316	Y 81335	Y 81336	Y 81355	Y 81356
2045	2046	2053	2054	643	644	663	664	683	684	703	704
YA 22957	YA 22958	YA 22965	YA 22966	Y 81293	Y 81294	Y 81313	Y 81314	Y 81333	Y 81334	Y 81353	Y 81354
2043	2044	2051	2052	641	642	661	662	681	682	701	702
YA 22955	YA 22956	YA 22963	YA 22964	Y 81291	Y 81292	Y 81311	Y 81312	Y 81331	Y 81332	Y 81351	Y 81352
2033	2032	2017	2016	639	640	659	660	679	680	699	700
YA 22753	YA 22752	YA 22737	YA 22736	Y 81289	Y 81290	Y 81309	Y 81310	Y 81329	Y 81330	Y 81349	Y 81350
2031	2030	2015	2014	637	638	657	658	677	678	697	698
YA 22751	YA 22750	YA 22735	YA 22734	Y 81287	Y 81288	Y 81307	Y 81308	Y 81327	Y 81328	Y 81347	Y 81348
2029	2028	2013	2012	635	636	655	656	675	676	695	696
YA 22749	YA 22748	YA 22733	YA 22732	Y 81285	Y 81286	Y 81305	Y 81306	Y 81325	Y 81326	Y 81345	Y 81346
2027	2026	2011	2010	617	618	599	600	581	582	559	560
YA 22747	YA 22746	YA 22731	YA 22730	Y 81267	Y 81268	Y 81249	Y 81250	Y 81231	Y 81232	Y 81209	Y 81210
2025	2024	2019	2018	615	616	597	598	579	580	557	558
YA 22953	YA 22952	YA 22947	YA 22946	Y 81265	Y 81266	Y 81247	Y 81248	Y 81229	Y 81230	Y 81207	Y 81208
2023	2022	2021	2020	613	614	595	596	577	578	555	556
YA 22951	YA 22950	YA 22949	YA 22948	Y 81263	Y 81264	Y 81245	Y 81246	Y 81227	Y 81228	Y 81205	Y 81206
2105	2106	2089	2090	611	612	593	594	575	576	2059	2060
YA 23017	YA 23016	YA 22999	YA 22998	Y 81261	Y 81262	Y 81243	Y 81244	Y 81225	Y 81226	YA 22971	YA 22972
2103	2104	2087	2088	2041	2042	591	592	573	574	2065	2066
YA 23015	YA 23014	YA 22999	YA 22998	Y 81261	Y 81262	Y 81243	Y 81244	Y 81225	Y 81226	YA 22971	YA 22972
2101	2102	2085	2086	2039	2040	589	590	571	572	2063	2064
YA 23013	YA 23014	YA 22997	YA 22998	Y 81261	Y 81262	Y 81243	Y 81244	Y 81225	Y 81226	YA 22971	YA 22972
2099	2100	2083	2084	2037	2038	2202	2201	569	570	2061	2062
YA 23012	YA 23012	YA 22995	YA 22996	Y 81261	Y 81262	Y 81243	Y 81244	Y 81225	Y 81226	YA 22971	YA 22972
2098	2098	2081	2082	2035	2036	2204	2203	567	568	545	546
YA 23010	YA 23010	YA 22993	YA 22994	Y 81261	Y 81262	Y 81243	Y 81244	Y 81225	Y 81226	YA 22971	YA 22972
2096	2096	2079	2080	2212	2213	2206	2205	565	566	543	544
YA 23008	YA 23008	YA 22991	YA 22992	Y 81261	Y 81262	Y 81243	Y 81244	Y 81225	Y 81226	YA 22971	YA 22972
2094	2094	2077	2078	2214	2215	2208	2207	563	564	541	542
YA 23006	YA 23006	YA 22989	YA 22990	Y 81261	Y 81262	Y 81243	Y 81244	Y 81225	Y 81226	YA 22971	YA 22972
2092	2092	2075	2076	2216	2215	2210	2209	561	562	539	540
YA 23004	YA 23004	YA 23987	YA 23988	Y 81261	Y 81262	Y 81243	Y 81244	Y 81225	Y 81226	YA 22971	YA 22972
2277	2277	2258	2257	2238	2237	2218	2217	407	408	387	388
YA 23177	YA 23177	YA 23158	YA 23157	Y 81261	Y 81262	Y 81243	Y 81244	Y 81225	Y 81226	YA 22971	YA 22972
2279	2279	2260	2259	2240	2239	2220	2219	405	406	385	386
YA 23179	YA 23179	YA 23160	YA 23159	Y 81261	Y 81262	Y 81243	Y 81244	Y 81225	Y 81226	YA 22971	YA 22972

FIGURE III  
KEY MAP

SHOWING LOCATION OF GRID  
CLEAR LAKE EAST  
NTS 105 L-14

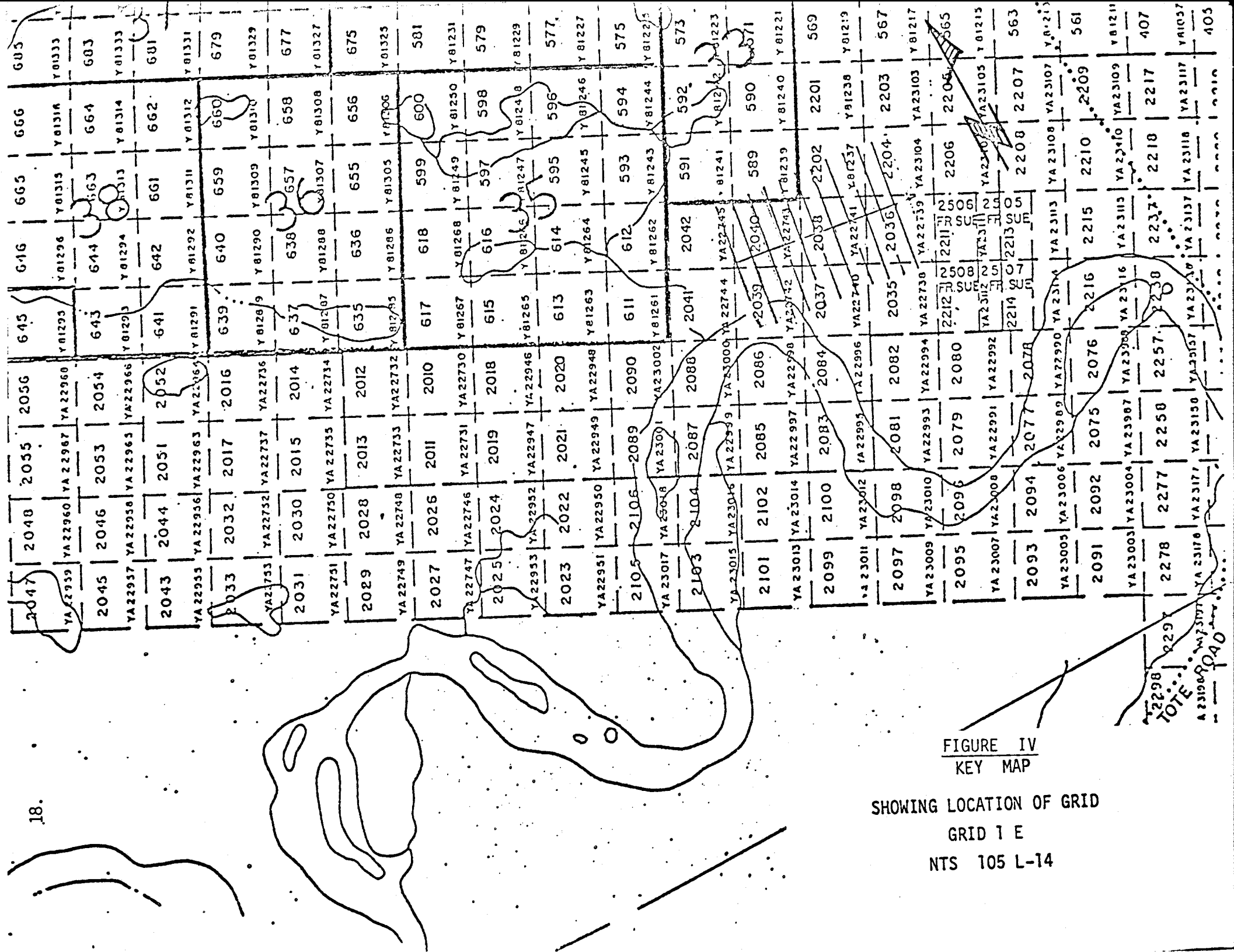


FIGURE IV  
KEY MAP

SHOWING LOCATION OF GRID  
GRID 1 E  
NTS 105 L-14







## APPENDIX I

### APEX MAXMIN II EM SYSTEM SPECIFICATIONS

**OPERATING FREQUENCIES:** 222, 444, 888 and 1777Hz

**COIL SEPARATIONS:** 100, 200, 300, 400, 600 and 800 feet

**MODES OF OPERATION:** (a) Tx coil plane and Rx coil plane horizontal (Horizontal loop mode).  
(b) Tx coil plane horizontal and Rx coil plane vertical (Minimum coupled mode).

**PARAMETERS MEASURED:** In-Phase and Quadrature component of the secondary field.

**READOUTS:** Automatic, direct readout on 3½" size meters.

**SCALE RANGES:** In-Phase: ±20% normal, ±100% by switch.  
Quadrature: ±20% normal, ±100% by switch.  
Inclinometers: ±50% tilt.

**READING REPEATABILITY:** ±½% to ±1%

**RX BANDWIDTH (-3dB):** 0.2 Hz nominal

**RX INTERNAL NOISE:** Negligible

**TX DIPOLE MOMENTS:** 150 Atm<sup>2</sup> @ 222 Hz, 150 Atm<sup>2</sup> @ 444 Hz,  
75 Atm<sup>2</sup> @ 888 Hz, 50 Atm<sup>2</sup> @ 1777 Hz.

**RX POWER SUPPLY:** Four 9V batteries (transistor radio type)

**TX POWER SUPPLY:** Three 6 V alkaline lantern batteries in a separate battery pack. Optionally one 12V 8Ah rechargeable Gel Cell.

**REFERENCE CABLE:** Light weight, low friction unshielded cable. Unit supplied with 200, 400 and 600 ft cables, other lengths optional.

**WEIGHT OF RX UNIT:** 13 lbs.

**WEIGHT OF TX UNIT:** 30 lbs.

**OTHER MAIN FEATURES:** Built-in Intercom system for communication between receiver and transmitter unit.  
Signal and reference warning lights to indicate erroneous readings.

FOR MORE INFORMATION,  
PHONE (416) 491-6388 OR WRITE TO:

OUR NEW ADDRESS IS:  
APEX PARAMETRICS LIMITED  
100 SHEPPARD AV. EAST  
MARKHAM, ONTARIO L3R 9V4

---

# **APEX PARAMETRICS LTD.**

---

255 YORKLAND BLVD., WILLOWDALE, ONTARIO, CANADA M2J 1S3

APPENDIX II

PERSONNEL

CONWEST EXPLORATION COMPANY LIMITED  
1010 - 85 Richmond Street West,  
Toronto, Ontario, M5H 2G1.

Frank A. Hodgkinson

March 18 - April 17, 1979  
Geophysical Surveys

McCRORY HOLDINGS,  
72 12th Avenue,  
Whitehorse, Y.T.

Terry McCrory,  
Porter Creek, Y.T.

March 1 - April 10, 1979  
Linecutting and Chaining

Andy MacDonald  
Whitehorse, Y.T.

March 1 - April 17, 1979  
Linecutting and Chaining

Don Nadrofsky  
Whitehorse, Y.T.

March 1 - March 18, 1979  
Linecutting and Chaining

March 19 - April 14, 1979  
Geophysical Survey Helper

David Smith  
Whitehorse, Y.T.

March 19 - March 31, 1979  
Linecutting and Chaining

Glen Bonneville  
Whitehorse, Y.T.

March 19 - April 10, 1979  
Linecutting and Chaining

Bill Preston  
Whitehorse, Y.T.

March 28 - April 17, 1979  
Linecutting and Chaining

APPENDIX III

LINE CUTTING, RECHAINING & GEOPHYSICAL WORK

May 30, 1979

MacMILLAN PROJECT

MARCH - APRIL 1979

<u>Grid</u>	<u>Base Line</u>	<u>Tie Line</u>	<u>Picket Line</u>	<u>Rechained</u>	<u>EM</u>	<u>MAG</u>	<u>Dollar Value</u>	
							<u>EM</u>	<u>MAG</u>
Clear Lake West	4,000'	3,500'	7,000'	6,400'	13,400' (2.54 Mi.)		\$2346.88	
Clear Lake	2,000'		14,500'	13,200'	27,700' (5.25 Mi.)		\$4850.84	
Clear Lake East	1,600'		11,400'		11,400' (2.16 Mi.)		\$1995.78	
1 E	4,000'		33,000'		33,000' (6.25 Mi.)	33,000' (6.25 Mi.)	\$5,774.81	\$3547.50
2 E	6,000'		48,000'		48,000 (9.09 Mi.)	48,000' (9.09 Mi.)	\$8398.89	\$5159.48
3 E	1,600'		10,000'		10,000' (1.89 Mi.)	3,400 (0.64 Mi.)	\$1746.30	\$ 363.26
4 E	1,200'		12,000'		12,000' (2.27 Mi.)		\$2097.41	
<b>TOTALS</b>	<b>20,400'</b>	<b>3,500'</b>	<b>135,900'</b>	<b>19,600'</b>	<b>155,500'</b> <b>(29.45 Mi.)</b>	<b>84,400'</b> <b>(15.98 Mi.)</b>	<b>\$27210.91</b>	<b>\$9070.24</b>

APPENDIX IV

MACMILLAN PROJECT

SUE CLAIM GROUP

1979 EM AND MAGNETOMETER SURVEYS


STATEMENT OF EXPENDITURES

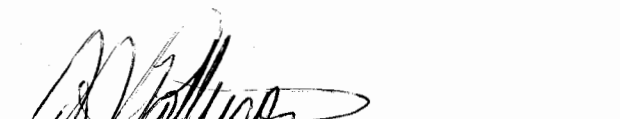
MARCH 1979 AND APRIL 1979

Salaries . . . . .	\$ 2,335.15
Wages, Board and Lodging . . . . .	25,125.00
Camp Supplies, e.g. skidoos, etc. . . . .	1,950.00
Helicopter and Truck Rental . . . . .	1,005.00
Aircraft Charter, Air Fares and Related Travel . . . . .	5,866.00
	<hr/>
	\$36,281.15
	<hr/>

I certify the above to be a true and correct statement of costs and expenditures.

CONWEST EXPLORATION COMPANY LIMITED

  
C. K. O'Connor, Vice-President,  
Exploration and Development

  
J. B. Patterson, Secretary-Treasurer

APPENDIX V

CALCULATION OF UNIT COSTS

Total costs have been apportioned in the ratio 3/4 to EM and 1/4 to Magnetometer for the purpose of calculating unit costs. This is based on a combination of the relative mileage of each as shown on Appendix III and a subjective assessment of the relative costs of EM surveys versus magnetometer surveys. The unit cost calculation is as follows:

$$\text{EM (3/4 of Total Cost)} \quad \frac{\$36,281.15}{29.45} \times \frac{3}{4} = 923.97 \text{ Line Per Mile}$$

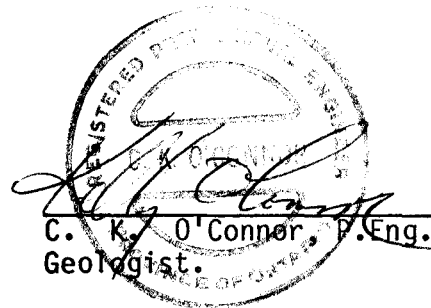
$$\text{Magnetometer (1/4) of Total Cost)} \quad \$36,281.15 \times 1 = 567.69 \text{ Line Per Mile}$$

APPENDIX VI

CERTIFICATE

I, Caven Kelly O'Connor, hereby certify that:

1. I am a geologist residing at 109 Inglewood Drive, Toronto, Ontario.
2. I received a Bachelor of Applied Science degree in Geological Engineering from the University of Toronto in 1962 and I have been practising my profession since that time.
3. I am a member of the Professional Engineers Associations of Ontario and British Columbia.
4. I am the author of this report and directed the overall conduct of the programme described herein.
5. I am a Director and Vice-President of Conwest Exploration Company Limited, having been employed by the Company since January 1969.



C. K. O'Connor, P.Eng.  
Geologist.


The seal is circular with the text "REGISTERED PROFESSIONAL ENGINEER" around the top and "PROVINCE OF ONTARIO" around the bottom. A signature is written across the seal.

Toronto, Ontario,  
June 14, 1979.

APPENDIX VII

MAPS (See Separate Folder)



 Conductor Axis

 In Phase Profile


 Quadrature Profile

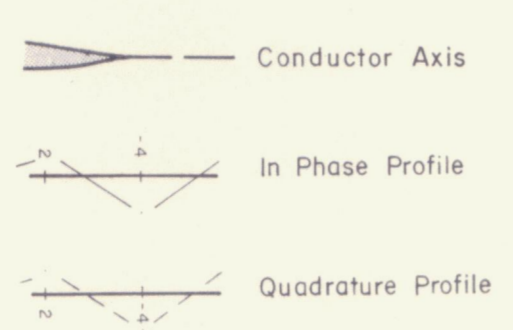
Profile Scale : 1" = 20%

Instrument : APEX Parametrics MAXMIN II

Separation : 600'



		<b>CONWEST EXPLORATION</b>		TENTH FLOOR 85 RICHMOND STREET WEST TORONTO, ONTARIO, CANADA M5H 2G1		
TELEPHONE (416) 362-6721		TELEX 06-218605		CABLE Conwest Toronto		
<b>MACMILLAN PROJECT</b>						
<b>EM (444 Hz) SURVEY</b>						
<b>GRID CLEAR LAKE EAST</b>						
DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE No.	MAPPED
MAY '79	C.P.	G.R.K.		105L-14		
SCALE 1 INCH = 200 FEET						



Profile Scale : 1" = 20%

Instrument : APEX Parametrics MAXMIN II

Separation : 600'



**CONWEST EXPLORATION**  
 COMPANY LIMITED

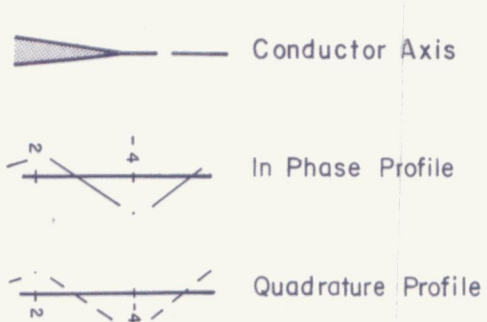
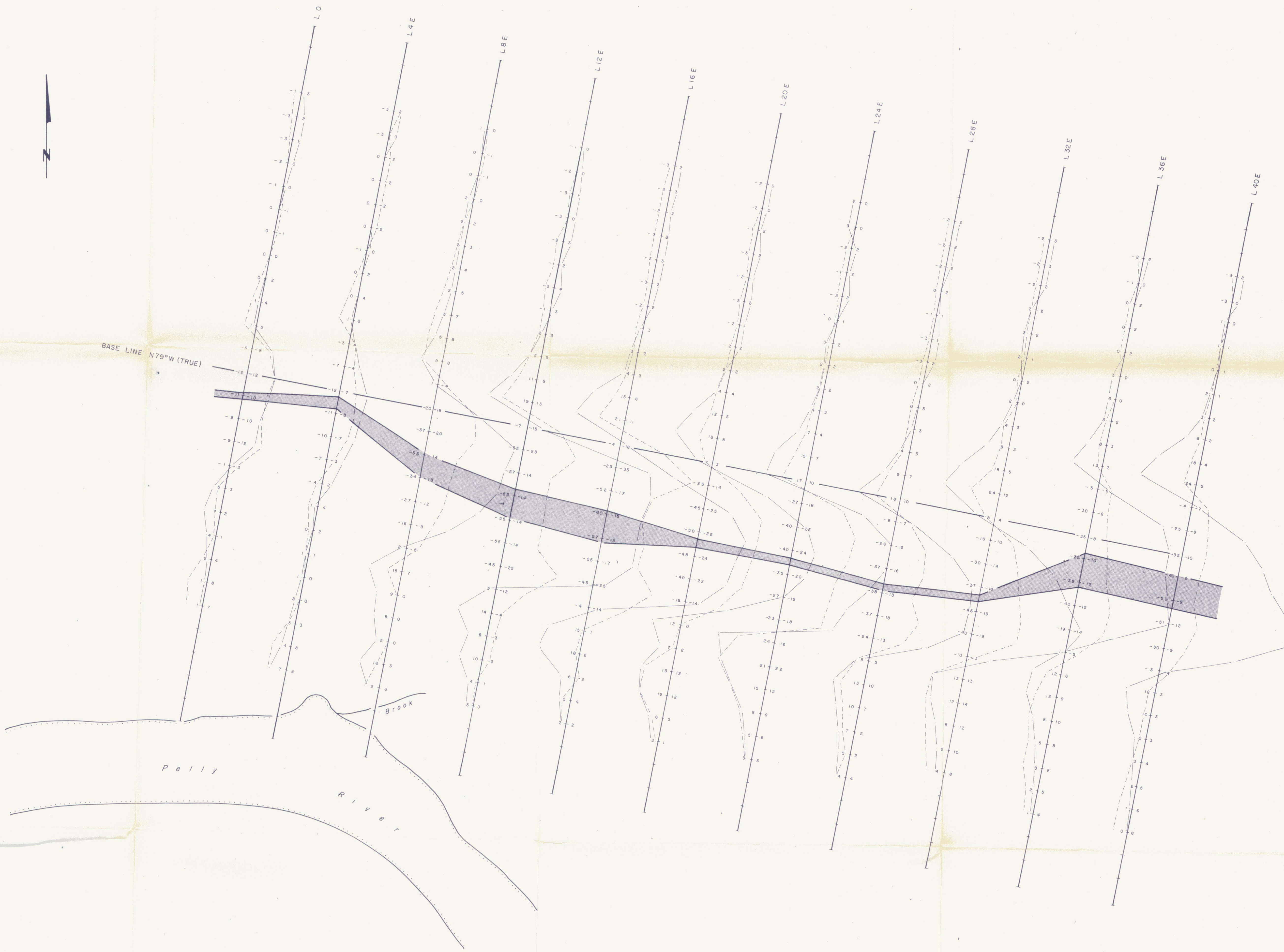
TELEPHONE (416) 362-6721 TELEEX 06-219605 CABLE Conwest Toronto

TENTH FLOOR 85 RICHMOND STREET WEST  
 TORONTO, ONTARIO, CANADA M5H 2G1

MACMILLAN PROJECT  
 EM (1777 Hz) SURVEY  
 GRID CLEAR LAKE EAST

DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE No.	MAPPED
MAY '79	C.P.	G.R.K.		105L-14		

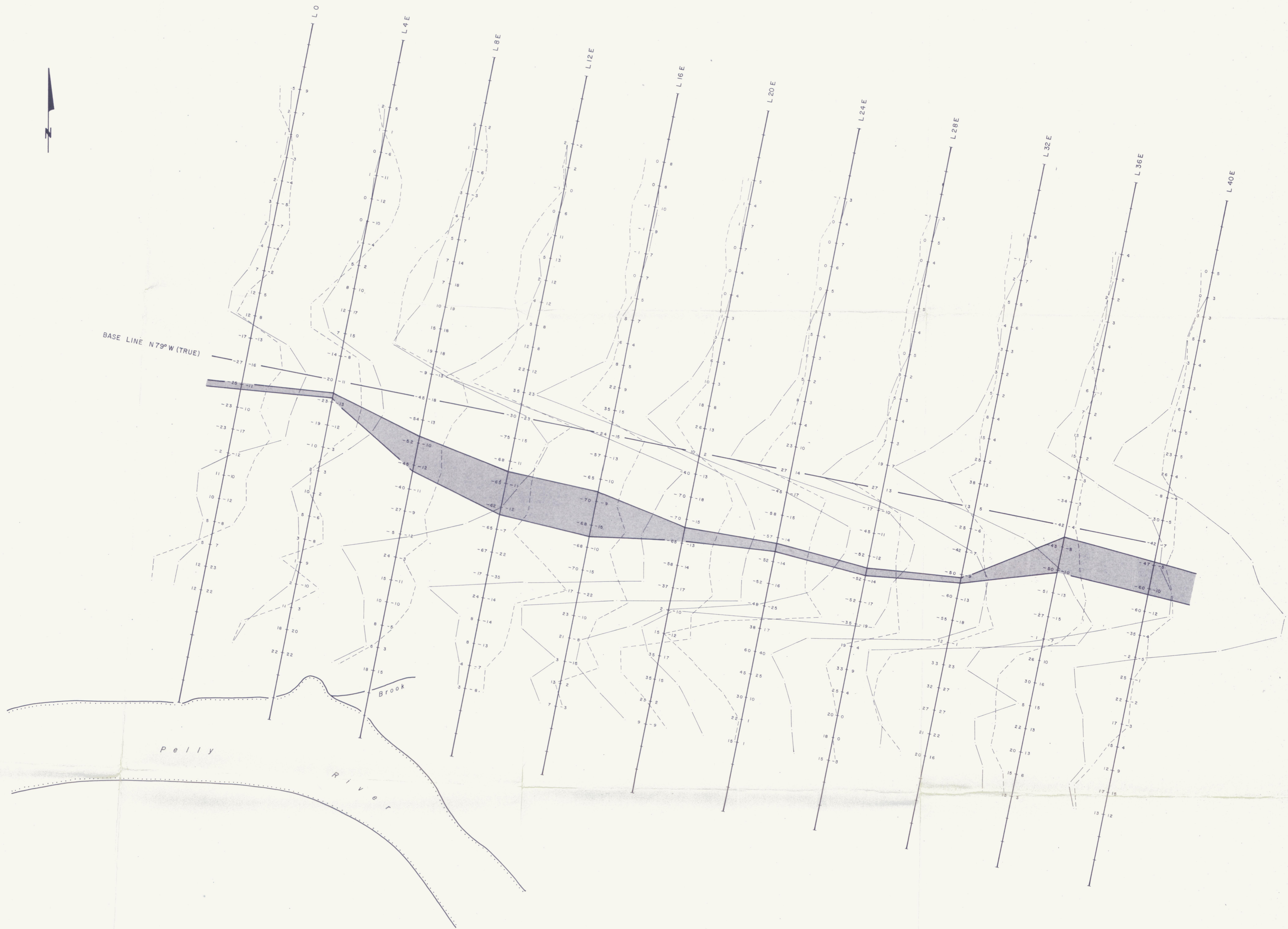
SCALE  
 1 INCH = 200 FEET



Profile Scale : 1" = 20%  
Instrument : APEX Parametrics MAXMIN II  
Separation : 600'



MACMILLAN PROJECT						
EM (444 Hz) SURVEY						
GRID I EAST						
DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE No.	MAPPED
MAY '79	C.P.	G.R.K.		105L-14		
SCALE 1 INCH = 200 FEET						



Conductor Axis

In Phase Profile

Quadrature Profile

Profile Scale : 1" = 20'

Instrument : APEX Parametrics MAXMIN II

Separation : 600'



MACMILLAN PROJECT  
EM (1777 Hz) SURVEY  
GRID I EAST

DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE NO.	MAPPED
MAY 79	C.P.	G.R.K.		105L-14		

SCALE  
1 INCH = 200 FEET



440 Relative value of the vertical component of the earth's field in gammas  
Magnetic contour line  
Magnetic low



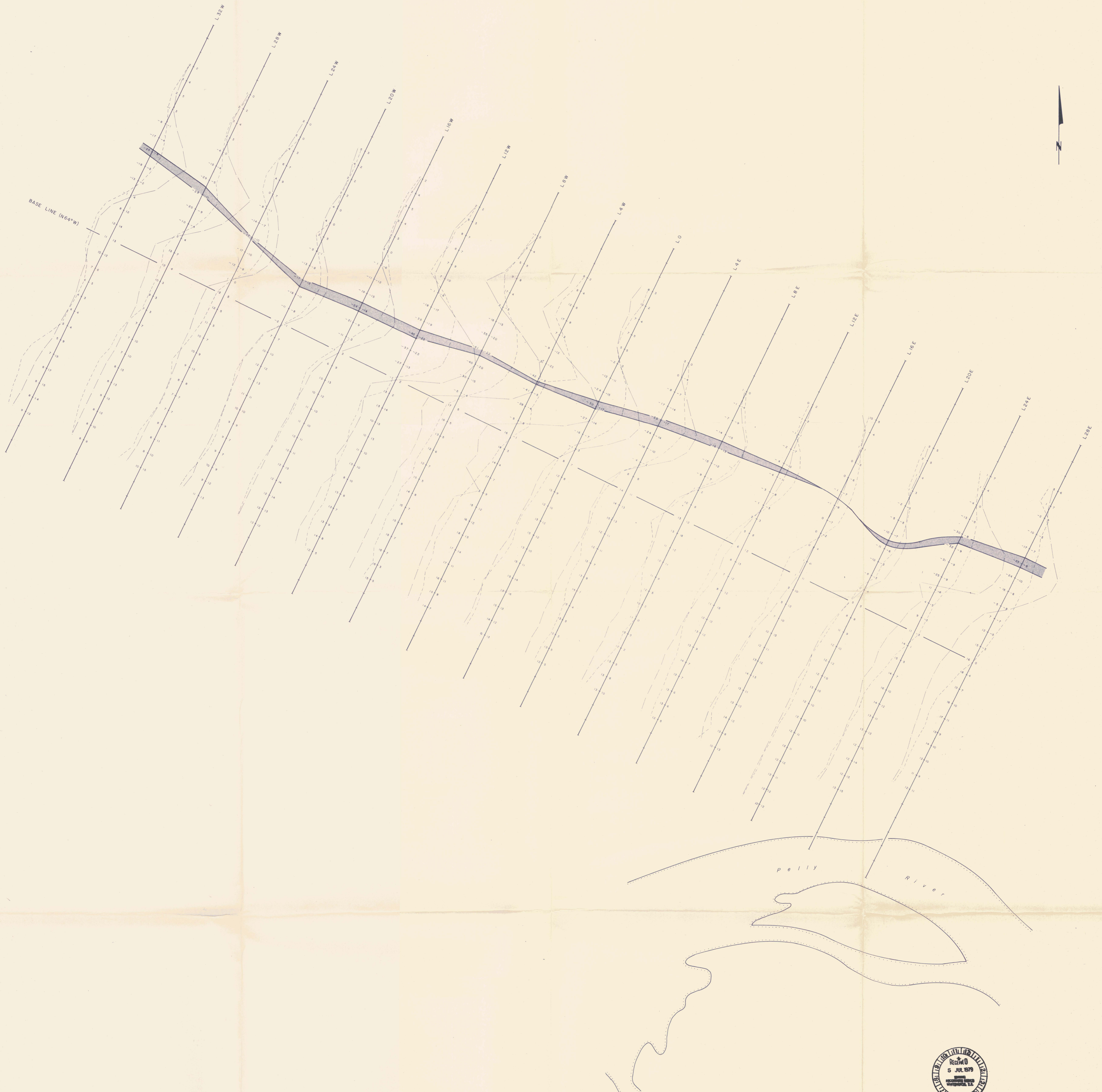
**CONWEST EXPLORATION**  
COMPANY LIMITED  
TELEPHONE (416) 362-8721 TELLEX 05-219055 CABLE Conwest Toronto


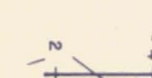
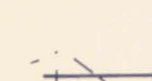
TENTH FLOOR 85 RICHMOND STREET WEST  
TORONTO, ONTARIO, CANADA M5H 2G1

**MACMILLAN PROJECT**  
**MAGNETIC SURVEY**  
**GRID 1 EAST**


DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE No.	MAPPED
MAY '79	C.P.	G.R.K.		105L-14		

SCALE  
1 INCH = 200 FEET



 Conductor Axis  
 In Phase Profile  
 Quadrature Profile  
 Profile Scale: 1" = 20%  
 Instrument: APEX Parametrics MAXMIN II  
 Separation: 600'

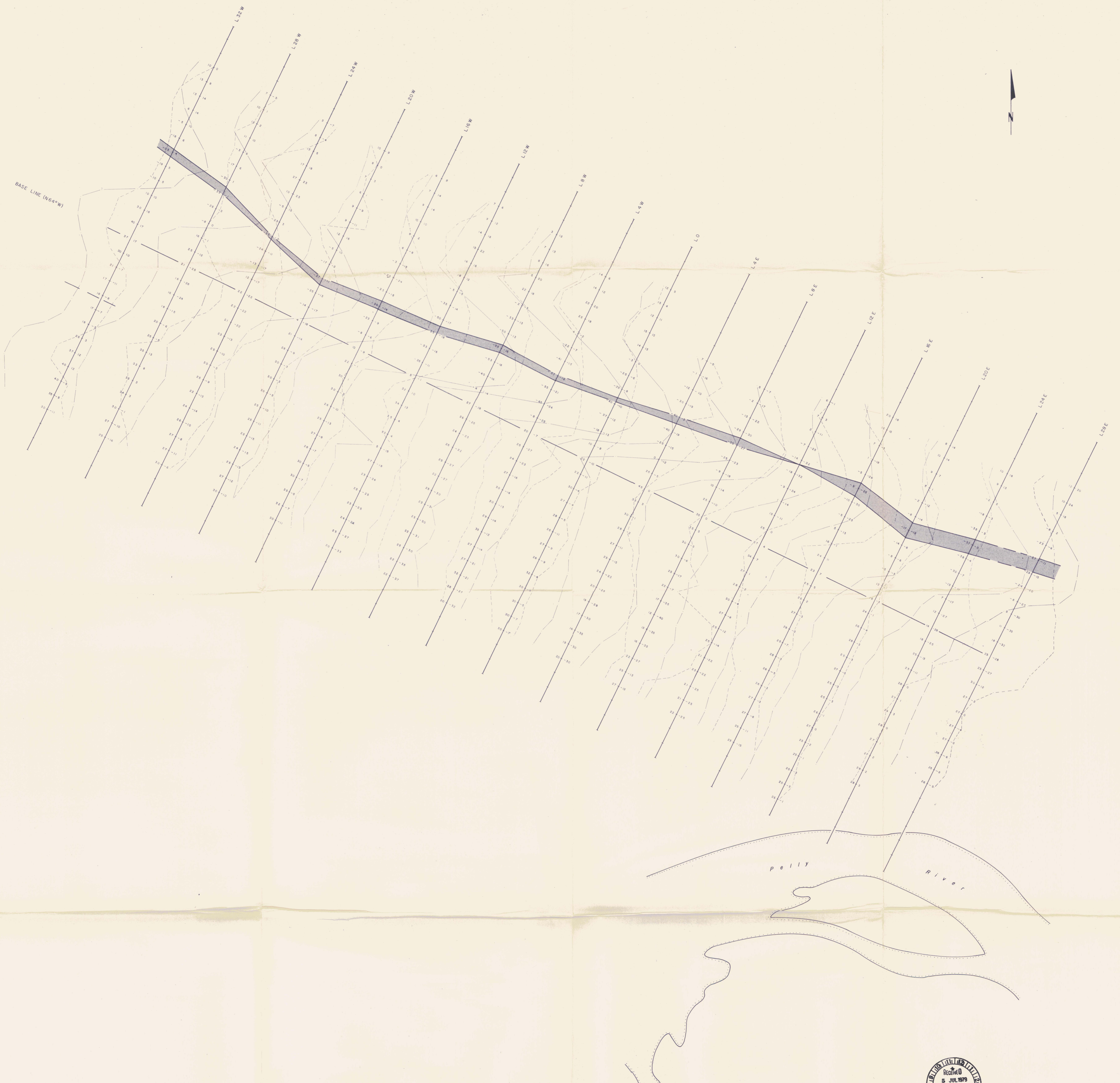



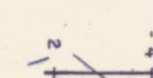
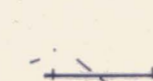

 TENTH FLOOR, 80 HURONWING STREET WEST  
 TORONTO, ONTARIO CANADA M5H 1B7  
 TELEPHONE (416) 593-8371 TELETYPE (416) 593-8370 CABLE CONWEST TORONTO

**MACMILLAN PROJECT**  
**EM (444 Hz) SURVEY**  
**GRID 2 EAST**


DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE NO.	MAPPED
MAY 79	C.P.	G.R.K.		105L-14,15		

SCALE  
 1 INCH = 200 FEET



 Conductor Axis  
 In Phase Profile  
 Quadrature Profile  
 Profile Scale: 1" = 20%  
 Instrument: APEX Parametrics MAXMIN II  
 Separation: 600'




 TENTH FLOOR 85 RICHMOND STREET WEST  
 TORONTO, ONTARIO, CANADA M5H 2E7  
 TELEPHONE (416) 593-8200 TELEFAX (416) 593-8205 CABLE: Conwest, Toronto

**MACMILLAN PROJECT**  
**EM (1777 Hz) SURVEY**  
**GRID 2 EAST**

DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE NO.	MAPPED
MAY '79	C.P.	G.R.K.		005L-14,15		

SCALE  
 1 INCH = 200 FEET



+40 Relative value of the vertical component of the earth's field in gamma  
 Magnetic contour line  
 Magnetic low




MACMILLAN PROJECT  
MAGNETIC SURVEY  
GRID 2 EAST

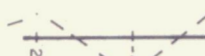
DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE No.	MAPPED
MAY 79	C.F.	G.R.K.		105L-1415		

SCALE  
1 INCH = 200 FEET



 Conductor Axis

 In Phase Profile

 Quadrature Profile

Profile Scale : 1" = 20%

Instrument : APEX Parametrics MAXMIN II

Separation : 600'



TENTH FLOOR, 85 RICHMOND STREET WEST  
TORONTO, ONTARIO, CANADA M5H 2G1


TELEPHONE (416) 362-0721 TELEEX 06-219605 CABLE Conwest Toronto


MACMILLAN PROJECT  
EM (444 Hz) SURVEY  
GRID 3 EAST


DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE No.	MAPPED
MAY '79	C.P.	G.R.K.		105L-10,15		

SCALE  
1 INCH = 200 FEET



 Conductor Axis

 In Phase Profile

 Quadrature Profile

Profile Scale : 1" = 20%

Instrument : APEX Parametrics MAXMIN II

Separation : 200'



 **CONWEST EXPLORATION**  
COMPANY LIMITED

TENTH FLOOR 85 RICHMOND STREET WEST  
TORONTO, ONTARIO, CANADA M5H 2G1




TELEPHONE (416) 362-6721 TELEX 06-219605 CABLE Conwest Toronto

MACMILLAN PROJECT  
EM (1777 Hz) SURVEY  
GRID 3 EAST

DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE No.	MAPPED
MAY '79	C.P.	G.R.K.		105L-10,15		

SCALE  
1 INCH = 100 FEET



-  440 Relative value of the vertical component of the earth's field in gammas
-  Magnetic contour line
-  Magnetic low



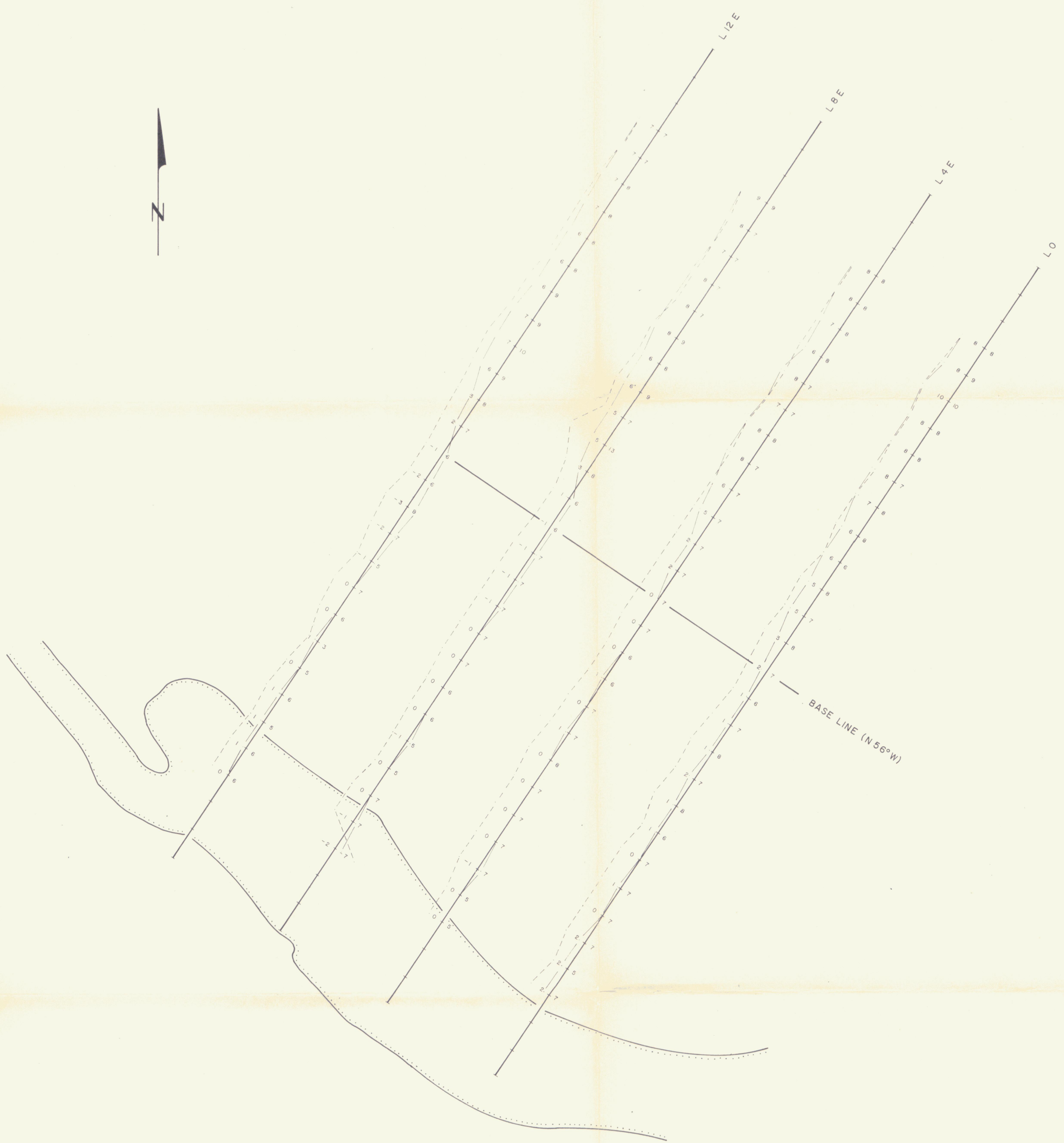
 **CONWEST EXPLORATION**  
COMPANY LIMITED  
TELEPHONE (416) 362-6721 TELEEX 06-219605 CABLE Conwest Toronto

TENTH FLOOR 85 RICHMOND STREET WEST  
TORONTO, ONTARIO, CANADA M5H 2G1

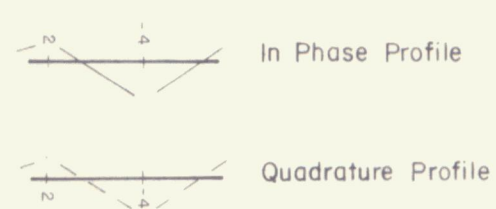
MACMILLAN PROJECT  
MAGNETIC SURVEY  
GRID 3 EAST

DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE No.	MAPPED
MAY '79	C.P.	G.R.K.		105L-10,15		

SCALE  
1 INCH = 200 FEET



**LEGEND**



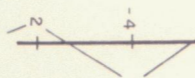
Profile Scale : 1" = 20%  
Instrument : APEX Parametrics MAXMIN II  
Separation : 600'

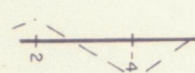


		TENTH FLOOR 85 RICHMOND STREET WEST TORONTO, ONTARIO, CANADA M5H 2G1				
CONWEST EXPLORATION COMPANY LIMITED		TELEPHONE (416) 362-6721    TELEX 06-219605    CABLE Conwest Toronto				
<b>MACMILLAN PROJECT</b> <b>EM (444 Hz) SURVEY</b> <b>GRID 4 EAST</b>						
DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE No.	MAPPED
MAY '79	C.P.	G.R.K.		105L-10,15		
SCALE 1 INCH = 200 FEET						



**LEGEND**

 In Phase Profile

 Quadrature Profile

Profile Scale : 1" = 20%

Instrument : APEX Parametrics MAXMIN II

Separation : 600'



TENTH FLOOR, 85 RICHMOND STREET WEST  
TORONTO, ONTARIO, CANADA M5H 2G1

**MACMILLAN PROJECT  
EM (1777 Hz) SURVEY  
GRID 4 EAST**

DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE No.	MAPPED
MAY '79	C.P.	G.R.K.			105L-10,15	

SCALE  
1 INCH = 200 FEET