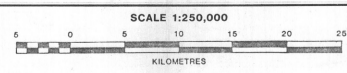
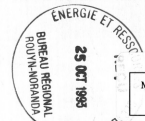


Note: FOR LEGEND SEE PLATE 4A



**GEOLOGY  
COMPILATION MAP**

PLATE 2



MER - S.I.S.E.M. 1994/02/18  
GM 52252

**LEGEND**

**VOLCANICS**

- VF FELSIC VOLCANIC
- VI INTERMEDIATE VOLCANIC
- VM MAFIC VOLCANIC
- VU ULTRAMAFIC VOLCANIC
- D DACITE
- R RHYOLITE
- a AMYGDALOIDAL
- b BRECCIA
- f FRAGMENTAL
- h HYALOCLASTITE
- p PILLOWED
- px PHENOCRYSTS
- s SPHERULITIC
- t TUFF
- v VARIOLITIC
- y QUARTZ EYES

**SEDIMENTARY**

- Sg GRAYWACKE
  - Sa ARGILLITE, SILTSTONE
  - Ss SANDSTONE
  - Sc CONGLOMERATE
  - Sh CHERT
  - SIF IRON FORMATION
  - Scs CALC SILICATE
- INTRUSIVES**
- ib GABBRO
  - Id DIORITE
  - Ig GRANITE
  - In GRANODIORITE
  - It TONALITE
  - Iu ULTRAMAFIC
  - Ia DIABASE
  - Peg PEGMATITE

**GNEISSIC**

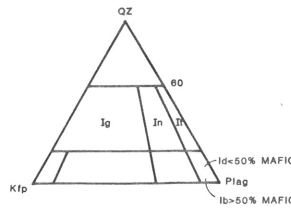
- G GNEISS
  - GM MAFIC GNEISS
  - GI INTERMEDIATE GNEISS
  - GSP PARAGNEISS
  - DIA DIATEXITE
- SCHIST**
- MS SCHIST
  - F FELSIC
  - M MAFIC
  - U ULTRAMAFIC
  - S SEDIMENTARY
  - MM MYLONITE
  - m MASSIVE

**ALTERATION**

- AK ANKERITE
- AT ANTHOPHYLLITE
- BO BIOTITE
- CB CARBONATE
- CH CHLORITE
- CO CORDIERITE
- EP EPIDOITE
- GT GARNET
- SE SERICITE
- SM SILLIMANITE
- ST STAUROLITE
- TC TALC
- TL TOURMALINE
- CLT CHLORITOID
- Q QUARTZ VEIN

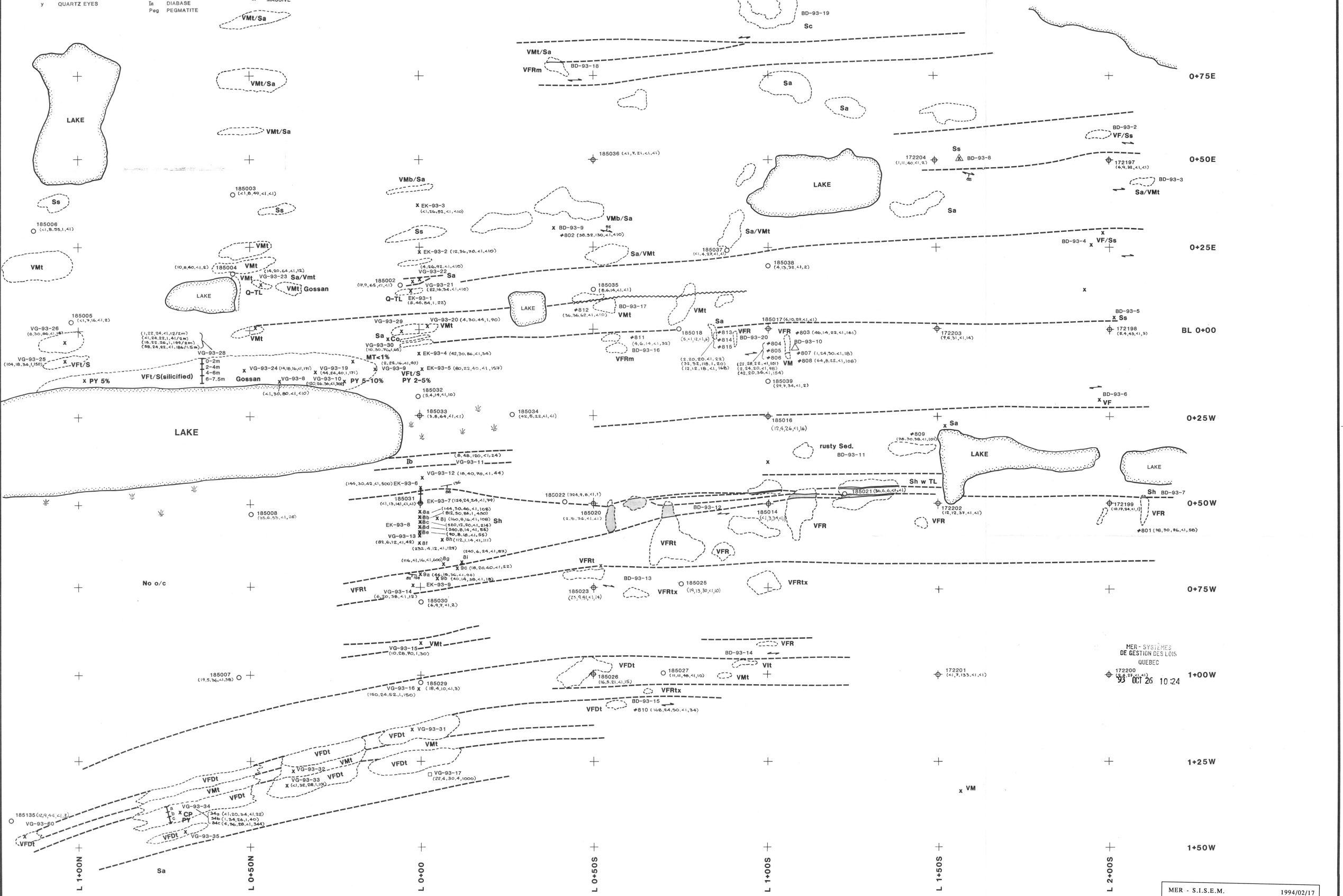
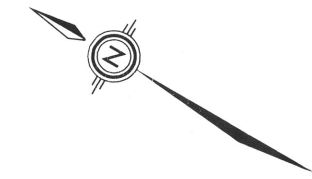
**MINERALIZATION**

- AS ARSENOOPYRITE
- CP CHALCOPYRITE
- GN GALENA
- GP GRAPHITE
- MT MAGNETITE
- MO MOLYBDENITE
- PY PYRITE
- PO PYRRHOTITE
- SP SPHALERITE
- SF SULPHIDES



- x (330,42,42,2,10) ROCK SAMPLE (Cu,Pb,Zn,Ag,Au) ppm ppb
- o (81,23,48,2,1) SOIL SAMPLE Cu,Pb,Zn,Ag,Au ppm ppb
- △ WHOLE ROCK SAMPLES

- GEOLOGICAL CONTACT
- - - FAULT
- ~ ~ ~ SCHISTOSITY
- ▬ BEDDING
- ▬ TOPS
- GOSSAN
- OUTCROP, OUTCROP AREA
- FLOAT



MER-SYSTEMES DE GESTION DES LOIS QUEBEC  
172200  
93 OCT 26 10 24

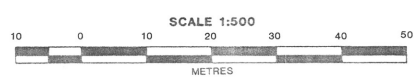
MER - S.I.S.E.M. 1994/02/17  
GM 5252

**KOGALUC SOUTH**

Drawn by: V.G.B.D.	Traced by: L.S.
Revised by: _____	Revised by: _____
Date: _____	Date: _____

**GRID 1**  
**GEOLOGY & GEOCHEM MAP**

Scale: 1:500 Date: September 1993 Plate: 5



**LEGEND**

**VOLCANICS**

- VF FELSIC VOLCANIC
- VI INTERMEDIATE VOLCANIC
- VM MAFIC VOLCANIC
- VU ULTRAMAFIC VOLCANIC
- D DACITE
- R RHYOLITE
- a AMYGDALOIDAL
- b BRECCIA
- f FRAGMENTAL
- h HYALOCLASTITE
- p PILLOWED
- px PHENOCRYSTS
- s SPHERULITIC
- t TUFF
- v VARIOLITIC
- y QUARTZ EYES

**SEDIMENTARY**

- Sg GRAYWACKE
- Sa ARGILLITE,SILTSTONE
- Ss SANDSTONE
- Sc CONGLOMERATE
- Sh CHERT
- SIF IRON FORMATION
- Scs CALC SILICATE

**INTRUSIVES**

- Ib GABBRO
- Id DIORITE
- Ig GRANITE
- In GRANODIORITE
- It TONALITE
- Iu ULTRAMAFIC
- Ia DIABASE
- Peg PEGMATITE

**GNEISSIC**

- G GNEISS
- GM MAFIC GNEISS
- GI INTERMEDIATE GNEISS
- GSP PARAGNEISS
- DIA DIATEXITE

**SCHIST**

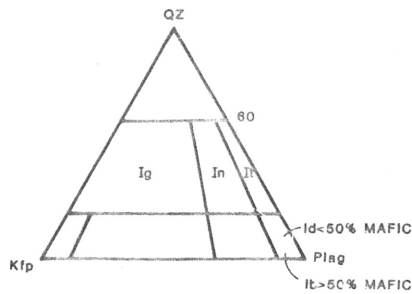
- MS SCHIST
- F FELSIC
- M MAFIC
- U ULTRAMAFIC
- S SEDIMENTARY
- MM MYLONITE

**ALTERATION**

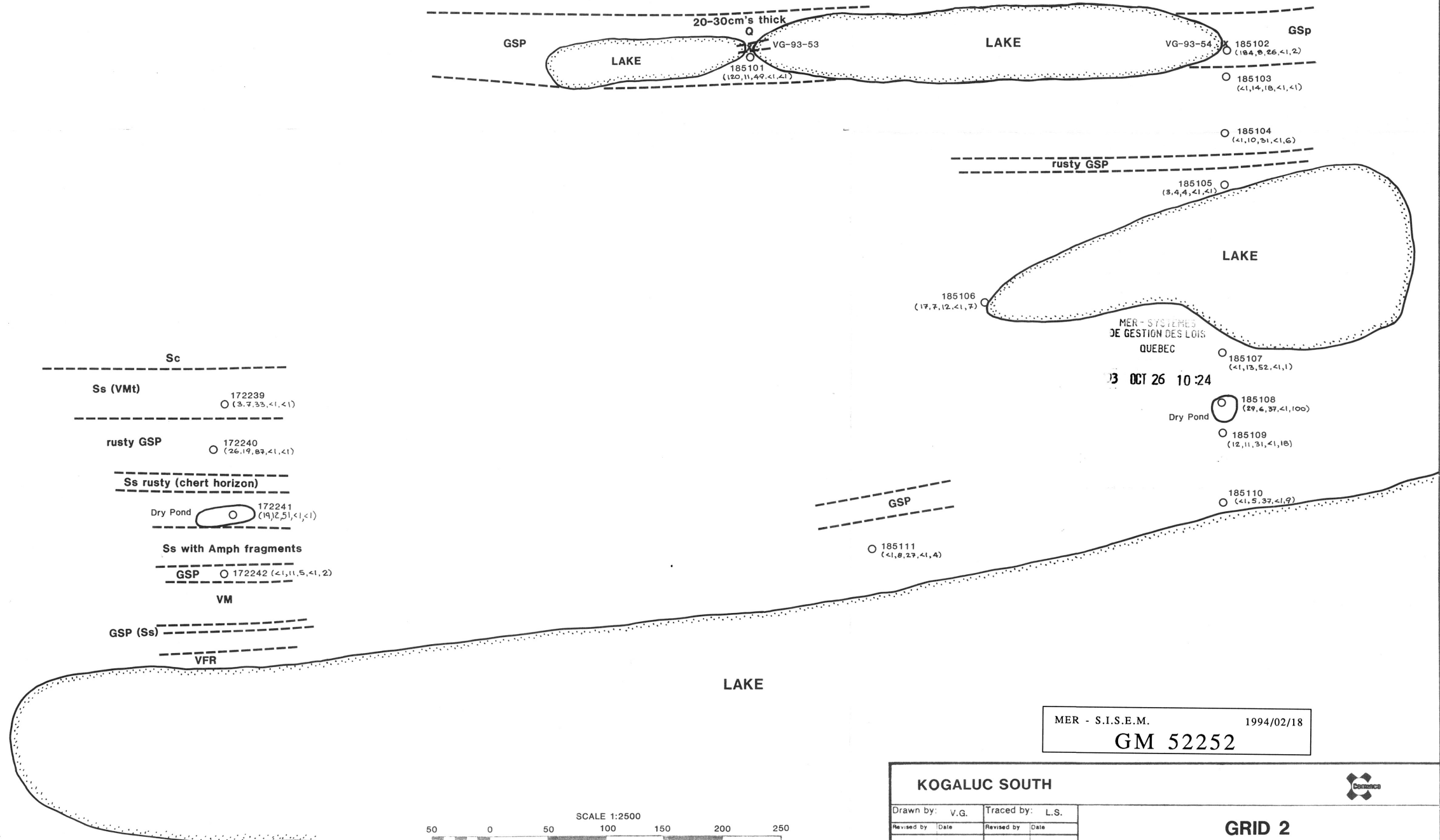
- AK ANKERITE
- AT ANTHOPHYLLITE
- BO BIOTITE
- CB CARBONATE
- CH CHLORITE
- CO CORDIERITE
- EP EPIDOTE
- GT GARNET
- SE SERICITE
- SM SILLIMANITE
- ST STAUROLITE
- TC TALC
- TL TOURMALINE
- CLT CHLORITOID
- Q QUARTZ VEIN

**MINERALIZATION**

- AS ARSENOPYRITE
- CP CHALCOPYRITE
- GN GALENA
- GP GRAPHITE
- MT MAGNETITE
- MO MOLYBDENITE
- PY PYRITE
- PO PYRRHOTITE
- SP SPHALERITE
- SF SULPHIDES

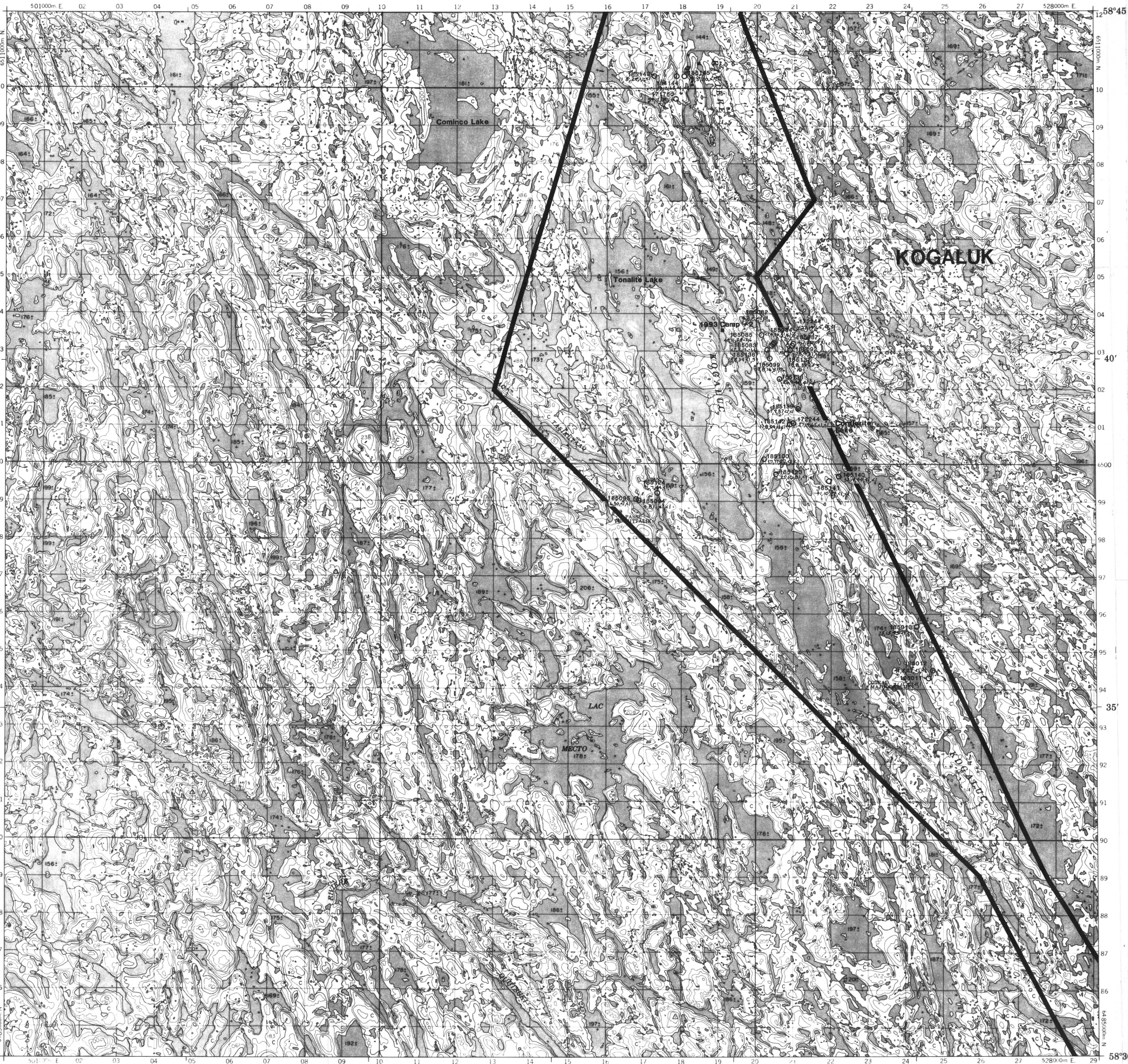


- GEOLOGICAL CONTACT
- FAULT
- SCHISTOSITY
- BEDDING
- TOPS
- GOSSAN
- OUTCROP, OUTCROP AREA
- ROCK SAMPLE (Cu,Pb,Zn,Ag,Au) ppm ppb (330,42,42,2,10)
- SOIL SAMPLE Cu,Pb,Zn,Ag,Au ppm ppb (81,23,48,2,1)
- WHOLE ROCK SAMPLES



MER - S.I.S.E.M. 1994/02/18  
**GM 52252**

KOGALUC SOUTH					
Drawn by: v.g.	Traced by: L.S.	<b>GRID 2</b> <b>GEOLOGY &amp; GEOCHEM MAP</b> <small>N.T.S. 34-J-8</small>			
Revised by: _____	Date: _____			Revised by: _____	Date: _____
Scale: 1:2500	Date: July 1993	Plate: 6			



PHOTOGRAPHIE		PHOTOGRAPHY	
RESTITUTION	COMPILED	RESTITUTION	COMPILED
136	A-15289	7/96	143
16	A-15289	7/96	11
	A-15290	7/96	
115			123
	A-14882	8/95	57
65			
	A-14851	8/95	133
126			

MER - SYSTÈMES DE GESTION DES LOIS QUÉBEC

93 OCT 26 10:23

Le REPERE MAGNETIQUE en 1986 est à 28°43' (810 mils) à l'OUEST du NORD DU QUADRILLAGE.  
 VARIATION ANNUELLE CROISSANTE 0.5  
 Le NORD DU QUADRILLAGE est à 0°12' (4 mils) à l'EST du NORD GÉOGRAPHIQUE au centre de la carte.  
 The 1986 MAGNETIC BEARING is 28°43' (810 mils) WEST of GRID NORTH.  
 ANNUAL CHANGE INCREASING 0.5'  
 GRID NORTH is 0°12' (4 mils) EAST of TRUE NORTH by centre of map.

Tableau d'assemblage du Système national de référence cartographique  
 Index to adjoining Maps of the National Topographic System

34 J/14	34 J/15	34 J/16
34 J/11	34 J/10	34 J/9
34 J/6	34 J/7	34 J/8



LEGEND

○ SOIL SAMPLE Cu,Pb,Zn,Ag,Au  
 81,23,48,2,1 ppm ppb

MER - S.I.S.E.M. 1994/02/18  
 GM 52252

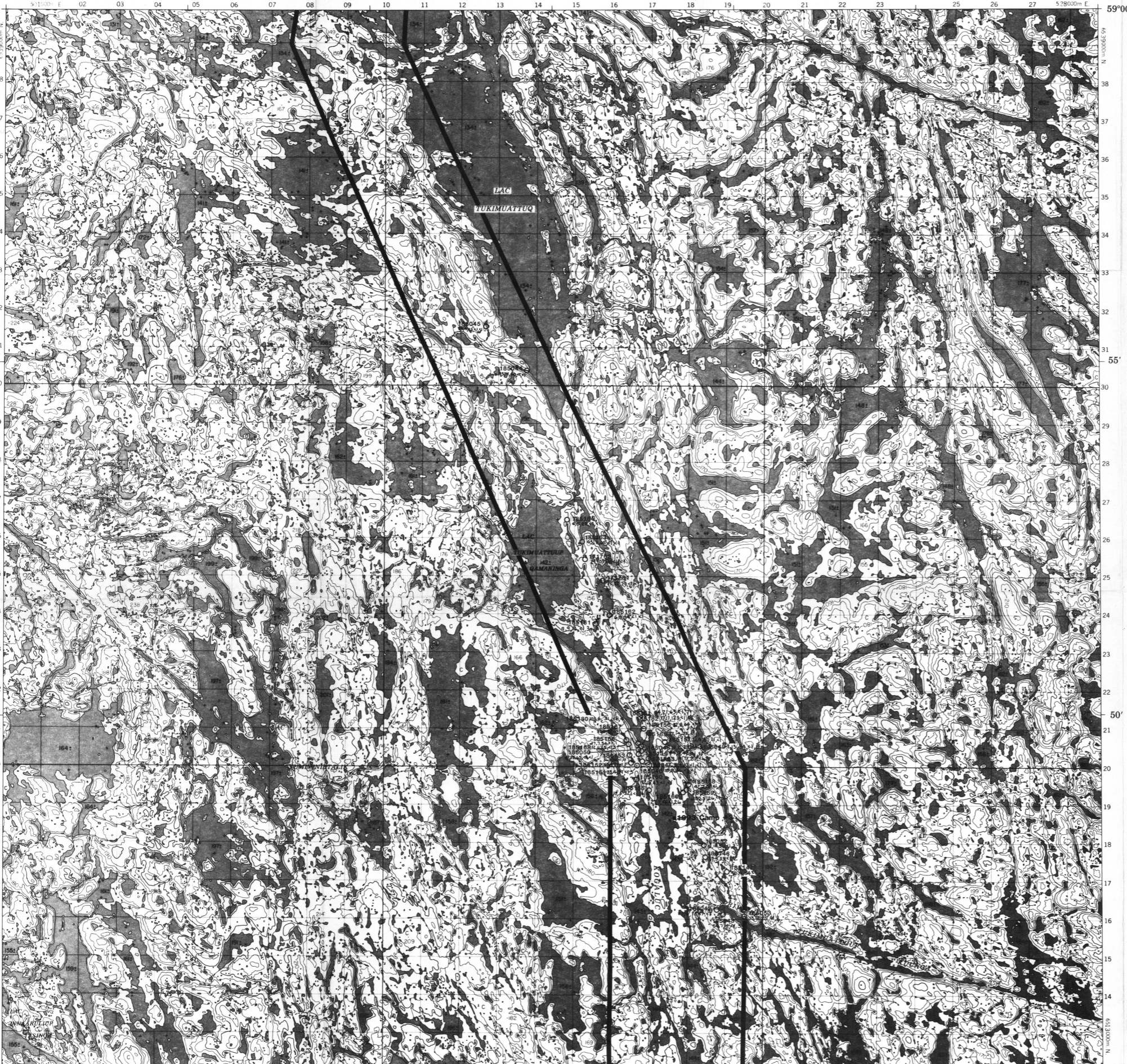
<b>MINTO JOINT VENTURE</b>			
Drawn by: V.G./B.D.	Traced by: R.V.		
Revised by: _____	Date: _____	Revised by: _____	Date: _____
		<b>KOGALUK PERMIT (CENTRE) GEOCHEMISTRY MAP</b>	
Scale: 1:50,000		Date: July 1993	Page: 11



LAC MECTO

ELEVATIONS IN METRES ABOVE MEAN SEA LEVEL  
 CONTOUR INTERVAL ..... 10 METRES

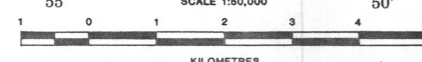
PRODUCED BY THE SURVEYS AND MAPPING BRANCH,  
 DEPARTMENT OF ENERGY, MINES AND RESOURCES,  
 OTTAWA, PUBLISHED IN 1986



59°00'  
38  
37  
36  
35  
34  
33  
32  
31  
30  
29  
28  
27  
26  
25  
24  
23  
22  
21  
20  
19  
18  
17  
16  
15  
14  
58°45'

MÉTRIQUE/METRIC

75°00' 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 74°30'



LAC TUKIMUATTUQ

ELEVATIONS IN METRES ABOVE MEAN SEA LEVEL  
CONTOUR INTERVAL ..... 10 METRES

PRODUCED BY THE SURVEYS AND MAPPING BRANCH  
DEPARTMENT OF ENERGY, MINES AND RESOURCES  
OTTAWA, PUBLISHED IN 1986

PHOTOGRAPHIE PHOTOGRAPHY  
RESTITUTION COMPILATION

A-15364	8/56
05	48
09 A-15288	7/56
103	A-14878
61	8/55
08	58
A-14881	8/55
09	56
A-14877	8/55
09	62
136	A-15289
	7/56
	143

MER - SYSTÈMES  
DE GESTION DES LOIS  
QUEBEC

93 OCT 26 10 23

Le REPERE MAGNÉTIQUE en 1986 est à 29°08' (518 mls) à l'OUEST du NORD DU QUADRILLAGE.  
VARIATION ANNUELLE CROISSANTE 0.2'  
Le NORD DU QUADRILLAGE est à 0°12' (4 mls) à l'EST du NORD GÉOGRAPHIQUE au centre de la carte.

The 1986 MAGNETIC BEARING is 29°08' (518 mls) WEST of GRID NORTH.  
ANNUAL CHANGE INCREASING 0.2'  
GRID NORTH is 0°12' (4 mls) EAST of TRUE NORTH for centre of map.



Tableau d'assemblage du Système national de référence cartographique  
Index to adjoining Maps of the National Topographic System

34-O/3	34-O/2	34-O/1
34 J/14	34 J/15	34 J/16
34 J/11	34 J/10	34 J/9

MER - S.I.S.E.M. 1994/02/18  
**GM 52252**

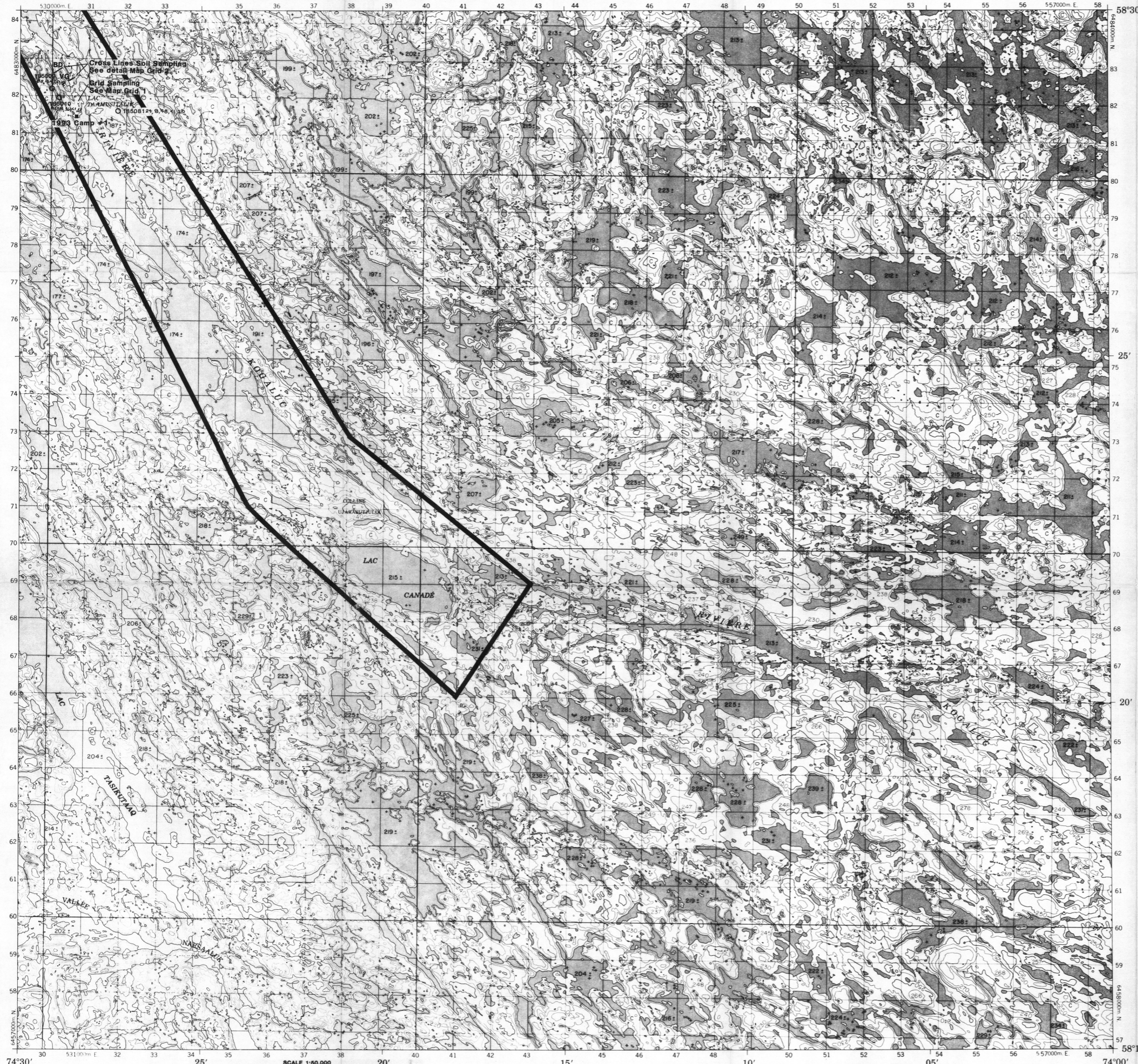
LEGEND  
○ SOIL SAMPLE Cu,Pb,Zn,Ag,Au  
81,23,48,2,1 ppm ppb

**MINTO JOINT VENTURE**

Drawn by: v.g./B.D. Traced by: R.V.  
 Revised by: Date: Revised by: Date:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**KOGALUK PERMIT (NORTH) GEOCHEMISTRY MAP**

Scale: 1:50,000 Date: August 1993 Plate: 12



MÉTRIQUE/METRIC

74°30' 30 53100m E 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 55700m E 58

58°30' 84 83 82 81 80 79 78 77 76 75 74 73 72 71 70 69 68 67 66 65 64 63 62 61 60 59 58

74°00' 1 0 1 2 3 4 5

SCALE 1:50,000

25' 20' 15' 10' 05'

58°15'



LAC CANADÉ

ELEVATIONS IN METRES ABOVE MEAN SEA LEVEL  
 CONTOUR INTERVAL ..... 10 METRES

PRODUCED BY THE SURVEYS AND MAPPING BRANCH  
 DEPARTMENT OF ENERGY, MINES AND RESOURCES  
 OTTAWA, PUBLISHED IN 1986

PHOTOGRAPHIE		PHOTOGRAPHY	
RESTITUTION		COMPILED	
7	A-14851	8/55	7/55
		27	A-14876 26
64	A-14873	8/55	7/51
67	A-14875	8/55	5/50
61	A-14780	7/55	5/53
58	A-14781	7/55	6/52



MER - SYSTÈMES DE GESTION DES LOIS  
 QUEBEC

93 OCT 26 10:23

La REPERE MAGNÉTIQUE en 1986 est à 29°12' (519 min) à l'OUEST du NORD DU QUADRILLAGE.  
 VARIATION ANNUELLE CROISSANTE 0.1'

Le NORD DU QUADRILLAGE est à 0°38' (11 min) à l'EST du NORD GÉOGRAPHIQUE au centre de la carte.

The 1986 MAGNETIC BEARING is 29°12' (519 min) WEST of GRID NORTH.  
 ANNUAL CHANGE INCREASING 0.1'  
 GRID NORTH is 0°38' (11 min) EAST of TRUE NORTH for centre of map.

Tableaux d'assemblage de Système national de référence cartographique  
 Index to adjoining Maps of the National Topographic System

34 J/10	34 J/9	34-I/12
34 J/7	34 J/8	34-I/5
34 J/2	34 J/1	34-I/4

MER - S.I.S.E.M. 1994/02/17  
**GM 52252**

**LEGEND**

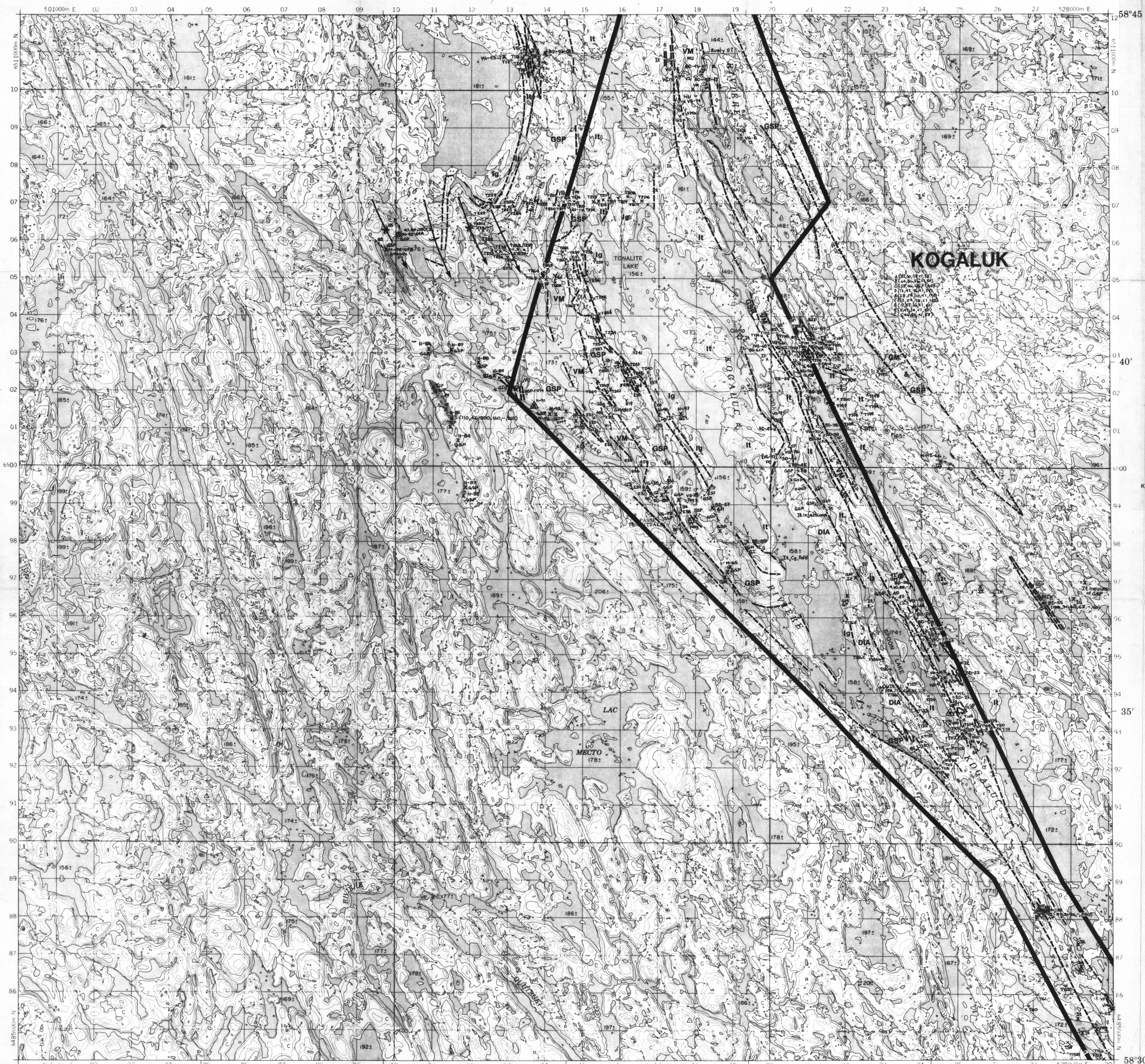
○ SOIL SAMPLE Cu,Pb,Zn,Ag,Au  
 81,23,48,2,1 ppm ppb

**MINTO JOINT VENTURE**

Drawn by: V.G./B.D. Traced by: R.V.  
 Revised by: \_\_\_\_\_ Date: \_\_\_\_\_ Revised by: \_\_\_\_\_ Date: \_\_\_\_\_

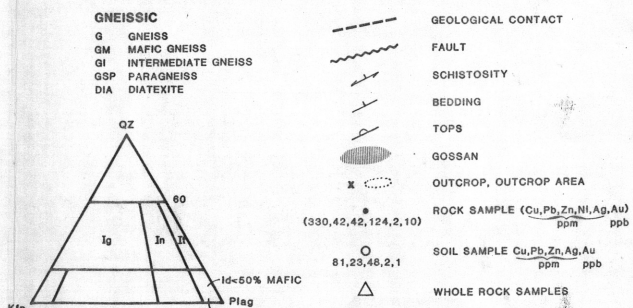
**KOGALUK PERMIT (SOUTH)  
 GEOCHEMISTRY MAP**

Scale: 1:50,000 Date: July 1993 Plate: 10



LEGEND

- VOLCANICS**
  - VF FELSIC VOLCANIC
  - VI INTERMEDIATE VOLCANIC
  - VM MAFIC VOLCANIC
  - VU ULTRAMAFIC VOLCANIC
  - DA DACITE
  - R RHYOLITE
  - a AMYGDALOIDAL
  - b BRECCIA
  - f FRAGMENTAL
  - h HYALOCLASTITE
  - p PILLOWED
  - px PHENOCRYSTS
  - s SPHERULITIC
  - t TUFF
  - v VARIOLITIC
  - y QUARTZ EYES
- SEDIMENTARY**
  - Sg GRAY WACKE
  - Sa ARGILLITE, SILTSTONE
  - Ss SANDSTONE
  - Sc CONGLOMERATE
  - Sh CHERT
  - SIF IRON FORMATION
  - Sca CALC SILICATE
- INTRUSIVES**
  - Ib GABBRO
  - Id DIORITE
  - Ig GRANITE
  - In GRANODIORITE
  - It TONALITE
  - Iu ULTRAMAFIC
  - Idi DIABASE
  - Peg PEGMATITE
- GNEISSIC**
  - G GNEISS
  - GM MAFIC GNEISS
  - GI INTERMEDIATE GNEISS
  - GSP PARAGNEISS
  - DIA DIATEXITE
- SCHIST**
  - MS SCHIST
  - F FELSIC
  - M MAFIC
  - U ULTRAMAFIC
  - S SEDIMENTARY
  - MM MYLONITE
- ALTERATION**
  - AK ANKERITE
  - AT ANTHOPHYLLITE
  - BO BIOTITE
  - CB CARBONATE
  - CH CHLORITE
  - CO CORDIERITE
  - EP EPIDOTE
  - GT GARNET
  - SE SERICITE
  - SM SILIMANITE
  - ST STAUROLITE
  - TC TALC
  - TL TOURMALINE
  - CLT CHLORITOID
- MINERALIZATION**
  - AS ARSENOPYRITE
  - CP CHALCOPYRITE
  - GN GALENA
  - GP GRAPHITE
  - MT MAGNETITE
  - MO MOLYBDENITE
  - PY PYRITE
  - PO PYRRHOTITE
  - SP SPHALERITE
  - SF SULPHIDES



PHOTOGRAPHE PHOTOGRAPHY

RESTITUTION	COMPLIATION
136 A-15289	7/56 143
18 A-15289	7/56 11
115 A-15290	7/56 123
65 A-14882	8/55 57
126 A-14851	8/55 133

MER - SYSTEMES DE GESTION DES LOIS  
 DE QUÉBEC  
 26 OCT 1993 10 24

The 1985 MAGNETIC BEARING is 28°43' (510 mmi) WEST OF GRID NORTH.  
 ANNUAL CHANGE INCREASING 0.5"  
 GRID NORTH is 9°13' (4 mmi) EAST OF TRUE NORTH  
 at center of map

Tableau d'assemblage du Système national de référence cartographique  
 Index to adjoining Maps of the National Topographic System

34 J/14	34 J/15	34 J/16
34 J/11	34 J/10	34 J/9
34 J/6	34 J/7	34 J/8

MER - S.I.S.E.M. 1994/02/17  
 GM 52252

**MINTO JOINT VENTURE**

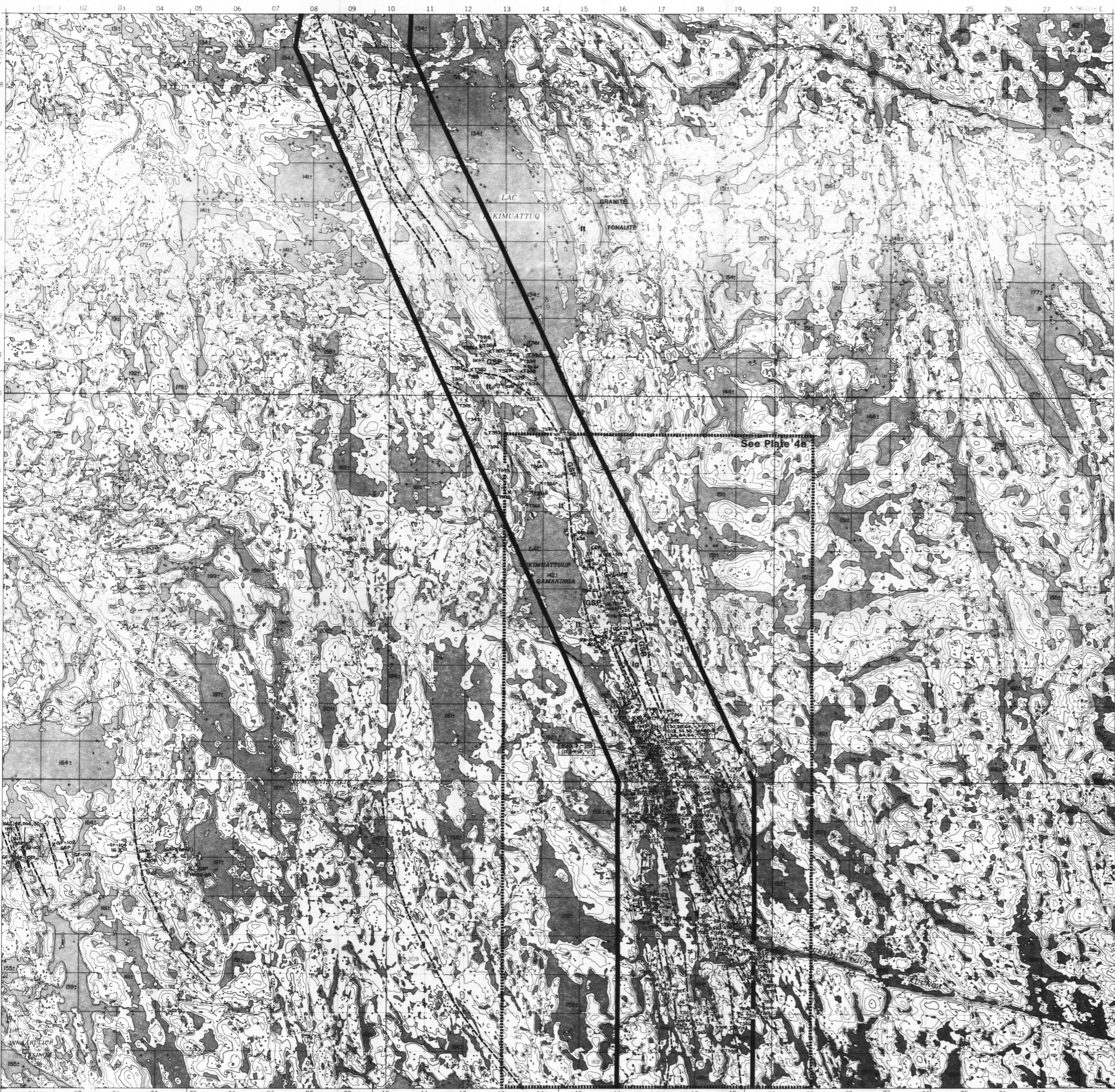
Drawn by: B.D. / J.H./D.W.M. Traced by: L.S.  
 Revised by: Date: Revised by: Date:  
 V.G./B.D. 09/1993 L.S. 09/1993  
 L.S. 09/1993

**KOGALUK PERMIT (CENTRE) GEOLOGY MAP**

Scale: 1:50,000 Date: January 1993 Plate: 3







**LEGEND**

**VOLCANICS**

- VF FELSIC VOLCANIC
- VI INTERMEDIATE VOLCANIC
- VM MAFIC VOLCANIC
- VU ULTRAMAFIC VOLCANIC
- D DACITE
- R RHYOLITE
- a AMYGDALOIDAL
- b BRECCIA
- f FRAGMENTAL
- h HYALOCLASTITE
- p PILLOWED
- px PHENOCRYSTS
- s SPHERULITIC
- t TUFF
- v VARIOLITIC
- y QUARTZ EYES

**SEDIMENTARY**

- Sg GRAYWACKE
- Sa ARGILLITE, SILTSTONE
- Ss SANDSTONE
- Sc CONGLOMERATE
- Sh CHERT
- SIF IRON FORMATION
- Scs CALC SILICATE

**INTRUSIVES**

- Ib GABBRO
- Id DIORITE
- Ig GRANITE
- In GRANODIORITE
- It TONALITE
- Iu ULTRAMAFIC
- Ia DIABASE
- Peg PEGMATITE

**GNEISSIC**

- G GNEISS
- GM MAFIC GNEISS
- GI INTERMEDIATE GNEISS
- GSP PARAGNEISS
- DIA DIATEXITE

**SCHIST**

- MS SCHIST
- F FELSIC
- M MAFIC
- U ULTRAMAFIC
- S SEDIMENTARY
- MM MYLONITE

**ALTERATION**

- AK ANKERITE
- AT ANTHOPHYLLITE
- BO BIOTITE
- CB CARBONATE
- CH CHLORITE
- CO CORDIERITE
- EP EPIDOTE
- GT GARNET
- SE SERICITE
- SM SILIMANITE
- ST STAUROLITE
- TC TALC
- TL TOURMALINE
- CLT CHLORITOID

**MINERALIZATION**

- AS ARSENOPYRITE
- CP CHALCOPYRITE
- GN GALENA
- GP GRAPHITE
- MT MAGNETITE
- MO MOLYBDENITE
- PY PYRITE
- PO PYRRHOTITE
- SP SPHALERITE
- SF SULPHIDES

**Geological Symbols:**

- GEOLOGICAL CONTACT
- ~ FAULT
- ~ SCHISTOSITY
- ~ BEDDING
- ~ TOPS
- ~ GOSSAN
- ~ OUTCROP, OUTCROP AREA
- ~ ROCK SAMPLE (Cu, Pb, Zn, Ni, Ag, Au) ppm
- ~ SOIL SAMPLE Cu, Pb, Zn, Ag, Au ppm
- ~ WHOLE ROCK SAMPLES

**Rock Composition Diagram:**

PHOTOGRAPHIE PHOTOGRAPHY  
RESTITUTION COMPILATION

A-15364	856	49
55		
99 A-15288	756	103
A-14878		
	61	855
49		
A-14881	855	56
69		
A-14877	855	62
136		
A-15289	756	143

Le REPERE MAGNETIQUE en 1985 est à 29°08' (518 mmi) à l'OUEST du NORD DU QUADRILLAGE.  
VARIATION ANNUELLE CROISSANTE 0.2°

Le NORD DU QUADRILLAGE est à 89°17' (4 mmi) à l'EST du NORD GEOGRAPHIQUE au centre de la carte.

The 1988 MAGNETIC BEARING is 29°08' (518 mmi) WEST OF GRID NORTH.  
ANNUAL CHANGE INCREASING 0.2°

GRID NORTH is 0°13' (4 mmi) EAST OF TRUE NORTH for centre of map.

MER - SYSTEMES DE GESTION DES LOIS QUEBEC

93 OCT 26 10:24

Tableau d'assemblage du Système national de référence cartographique Index to adjoining Maps of the National Topographic System

34-O/3	34-O/2	34-O/1
34 J/14	34 J/15	34 J/16
34 J/11	34 J/10	34 J/9

MER - S.I.S.E.M. 1994/02/17  
**GM 52252**

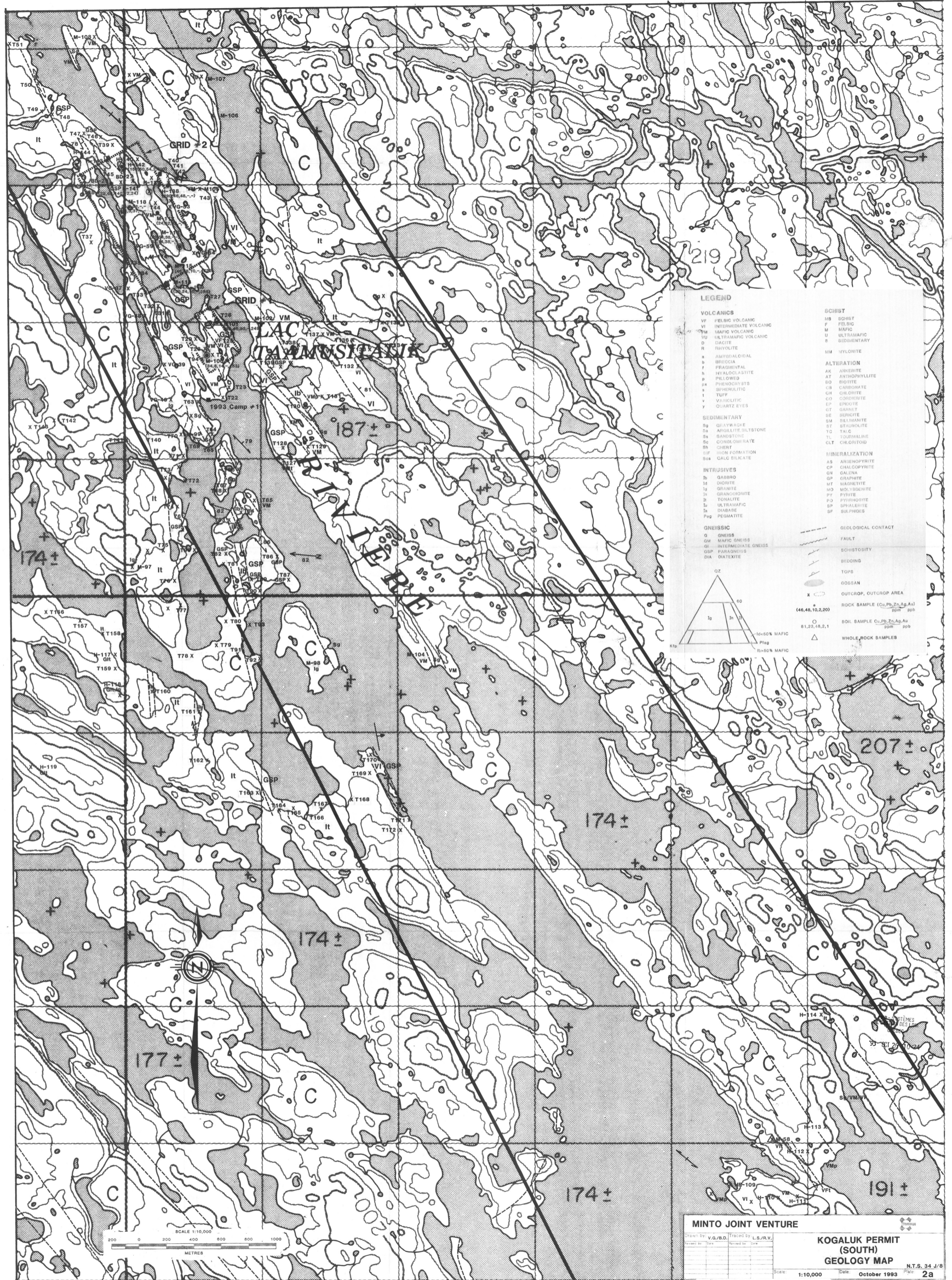
**MINTO JOINT VENTURE**

Drawn by: Traced by: L.S.

Revised by	Date	Revised by	Date
V.G./B.D.	10/93	L.S./R.V.	10/93
L.S.			

**KOGALUK PERMIT (NORTH) GEOLOGY MAP**

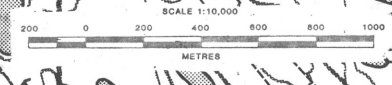
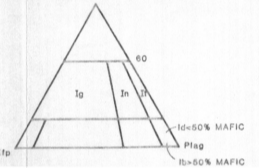
Scale: 1:50,000 Date: January 1993 Plate: 4



**LEGEND**

- |                          |                       |
|--------------------------|-----------------------|
| <b>VOLCANICS</b>         | <b>SCHIST</b>         |
| VF FELSIC VOLCANIC       | MS SCHIST             |
| VI INTERMEDIATE VOLCANIC | F FELSIC              |
| VM MAFIC VOLCANIC        | M MAFIC               |
| VU ULTRAMAFIC VOLCANIC   | U ULTRAMAFIC          |
| D DIABASE                | S SEDIMENTARY         |
| R RHYOLITE               | MM MYLONITE           |
|                          | <b>ALTERATION</b>     |
|                          | AK ANKERITE           |
|                          | AT ANTHOPHYLLITE      |
|                          | BO BOUTITE            |
|                          | CB CARBONATE          |
|                          | CH CHLORITE           |
|                          | CO COBALTITE          |
|                          | EP EPIDOTE            |
|                          | GT GARNET             |
|                          | SE SERICITE           |
|                          | SM SELLMANITE         |
|                          | ST STAUROCALCITE      |
|                          | TO TALC               |
|                          | TL TOURMALINE         |
|                          | CLT CHLORITOID        |
|                          | <b>MINERALIZATION</b> |
|                          | AS ARSENOPYRITE       |
|                          | CP CHALCOPYRITE       |
|                          | GA GALENA             |
|                          | GP GRAPHITE           |
|                          | MT MAGNETITE          |
|                          | MO MOLYBDENITE        |
|                          | PY PYRITE             |
|                          | PO PYRRHOTITE         |
|                          | SP SPHALERITE         |
|                          | SF SULPHIDES          |

- |                       |                   |                        |  |
|-----------------------|-------------------|------------------------|--|
| <b>SEDIMENTARY</b>    | <b>INTRUSIVES</b> | <b>GNEISSIC</b>        | <b>GEOLOGICAL CONTACT</b>                            |
| Gg GRAYWACKE          | IB GABBRO         | G GNEISS               | --- FAULT  |
| Ar ARGILLITE/SLTSTONE | Id DIORITE        | GM MAFIC GNEISS        | --- SCHISTOSITY                                      |
| Ss SANDSTONE          | IG GRANITE        | GI INTERMEDIATE GNEISS | --- BEDDING  |
| Co CONGLOMERATE       | IGR GRANODIORITE  | GSP PARAGNEISS         | --- TOPS   |
| Ch CHERT              | IT TONALITE       | DIA DIALEXITE          | --- GOSSAN   |
| IF IRON FORMATION     | UL ULTRAMAFIC     |                        | x OUTCROP, OUTCROP AREA                              |
| Ca CALC SILICATE      | D DIABASE         |                        | (46,46,10,2,20) ROCK SAMPLE (Cu,Pb,Zn,Ag,Au) ppm ppb |
|                       | Peg PEGMATITE     |                        | o SOIL SAMPLE (Cu,Pb,Zn,Ag,Au) ppm ppb               |
|                       |                   |                        | △ WHOLE ROCK SAMPLES                                 |



**MINTO JOINT VENTURE**

Drawn by V.G./B.D. Traced by L.S./R.V.

**KOGALUK PERMIT (SOUTH) GEOLOGY MAP**

Scale 1:10,000 Date October 1993 Plate 2a

N.T.S. 34 J/8



LEGEND

VOLCANICS

- VF FELSIC VOLCANIC
- VI INTERMEDIATE VOLCANIC
- VM MAFIC VOLCANIC
- VU ULTRAMAFIC VOLCANIC
- D DACITE
- R RHYOLITE
- a AMYGDALOIDAL
- b BRECCIA
- f FRAGMENTAL
- h HYALOCLASTITE
- p PILLOWED
- px PHENOCRYSTS
- s SPHERULITIC
- t TUFF
- v VARIOLITIC
- y QUARTZ EYES

SEDIMENTARY

- Sg GRAYWACKE
- Sa ARGILLITE, SILTSTONE
- Ss SANDSTONE
- Sc CONGLOMERATE
- Sh CHERT
- SIF IRON FORMATION
- Scs CALC SILICATE

INTRUSIVES

- Ib GABBRO
- Id DIORITE
- Ig GRANITE
- In GRANODIORITE
- It TONALITE
- Iu ULTRAMAFIC
- Ia DIABASE
- Peg PEGMATITE

GNEISSIC

- G GNEISS
- GM MAFIC GNEISS
- GI INTERMEDIATE GNEISS
- GSP PARAGNEISS
- DIA DIATEXITE

SCHIST

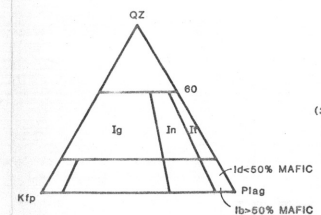
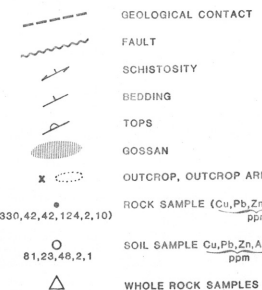
- MS SCHIST
- F FELSIC
- M MAFIC
- U ULTRAMAFIC
- S SEDIMENTARY
- MM MYLONITE

ALTERATION

- AK ANKERITE
- AT ANTHOPHYLLITE
- BO BIOTITE
- CB CARBONATE
- CH CHLORITE
- CO COORDITE
- EP EPIDOTE
- GT GARNET
- SE SERICITE
- SM SILLIMANITE
- ST STAUROLITE
- TC TALC
- TL TOURMALINE
- CLT CHLORITOID

MINERALIZATION

- AS ARSENOPYRITE
- CP CHALCOPYRITE
- GN GALENA
- GP GRAPHITE
- MT MAGNETITE
- MO MOLYBDENITE
- PY PYRITE
- PO PYRRHOTITE
- SP SPHALERITE
- SF SULPHIDES



PHOTOGRAPHIC RESTITUTION

PHOTOGRAPHIC RESTITUTION	PHOTOGRAPHY COMPILED
7 A-14851	855 1 27 A-14876 26
64 A-14873	855 71
57 A-14875	855 50
61 A-14780	755 53
55 A-14781	755 62

Le REPERE MAGNETIQUE en 1986 est à 291'2" (519 mms) à l'OUEST du NORD DU QUADRILLAGE.  
VARIATION ANNUELLE CROISSANTE 0.1"

Le NORD DU QUADRILLAGE est à 0°38' (11 mms) à l'EST du NORD GEOGRAPHIQUE au centre de la carte.

The 1986 MAGNETIC BEARING is 291'2" (519 mms) WEST OF GRID NORTH.  
ANNUAL CHANGE INCREASING 0.1"

GRID NORTH is 0°38' (11 mms) EAST OF TRUE NORTH for centre of map.

Tableau de classement du système national de référence cartographique  
Note: la colonne # des du National Geographic System

34 J/10	34 J/9	34-1/12
34 J/7	34 J/8	34-1/5
34 J/2	34 J/1	34-1/4

MER - S.I.S.E.M. 1994/02/17

GM 52252

MINTO JOINT VENTURE

Drawn by: J.H./D.W.M.	Traced by: L.S.
Revised by: Date	Revised by: Date
V.G./B.D. 09/1993	L.S. 09/1993
L.S. 09/1993	

KOGALUK PERMIT (South) GEOLOGY MAP

Scale: 1:50,000 Date: January 1993 Plate: 2

SCALE 1:50,000

25' 20' 15' 10' 05'

KILOMETRES

LAC CANADÉ

ELEVATIONS IN METRES ABOVE MEAN SEA LEVEL  
CONTOUR INTERVAL 10 METRES

PRODUCED BY THE SURVEYS AND MAPPING BRANCH  
DEPARTMENT OF ENERGY, MINES AND RESOURCES  
OTTAWA, PUBLISHED IN 1988

MÉTRIQUE/METRIC

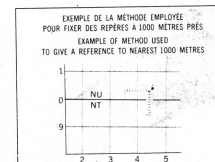
Reference de cette carte pour usage militaire: Military users refer to this map as: **SÉRIE A 501** **CARTE 34 J** **MAP 34 J** **EDITION 2 MCE EDITION**

MÉTRIQUE/METRIC

MÉTRIQUE/METRIC

QUADRILLAGE UNIVERSEL TRANSVERSE DE MERCATOR DE DIX MILLE MÈTRES ZONE 18 TEN THOUSAND METRE UNIVERSAL TRANSVERSE MERCATOR GRID

DESIGNATION DE LA ZONE DU QUADRILLAGE GRID ZONE DESIGNATION	IDENTIFICATION DU CARRÉ DE 100 000 m <sup>2</sup> 100 000 m <sup>2</sup> SQUARE IDENTIFICATION				
18 V	<table border="1"> <tr> <td>VA</td> <td>WA</td> </tr> <tr> <td>VV</td> <td>WW</td> </tr> </table>	VA	WA	VV	WW
VA	WA				
VV	WW				



POINT DE REPÈRE ÉGLISE-CHURCH (ci-dessus) REFERENCE POINT (as above)

CARRÉ: Lire les lettres du carré de 100 000 m<sup>2</sup> SQUARE: Read letters of 100 000 square

ABSCISSE: Notez le chiffre de la ligne du quadrillage immédiatement à gauche du repère. ESTIMATING: Read number on grid line immediately to left of point. Estimer le nombre de dixièmes du carré entre cette ligne et le repère en direction est. Estimate tenths of a square from this line eastward to point.

ORDONNÉE: Notez le chiffre de la ligne du quadrillage immédiatement en dessous du repère. NORTHING: Read number on grid line immediately below point. Estimer le nombre de dixièmes du carré entre cette ligne et le repère en direction nord. Estimate tenths of a square from this line northward to point.

RÉFÉRENCE AU QUADRILLAGE GRID REFERENCE: NU4504

Si vous faites connaître votre position à quelqu'un qui se trouve à plus de 18° au nord, indiquez également la zone de quadrillage tel que NU4504. If reporting beyond 18° in any direction, prefix Grid Zone designation as NU4504.

MER - SYSTÈMES DE GESTION DES LOIS QUEBEC

'93 OCT 26 10:24

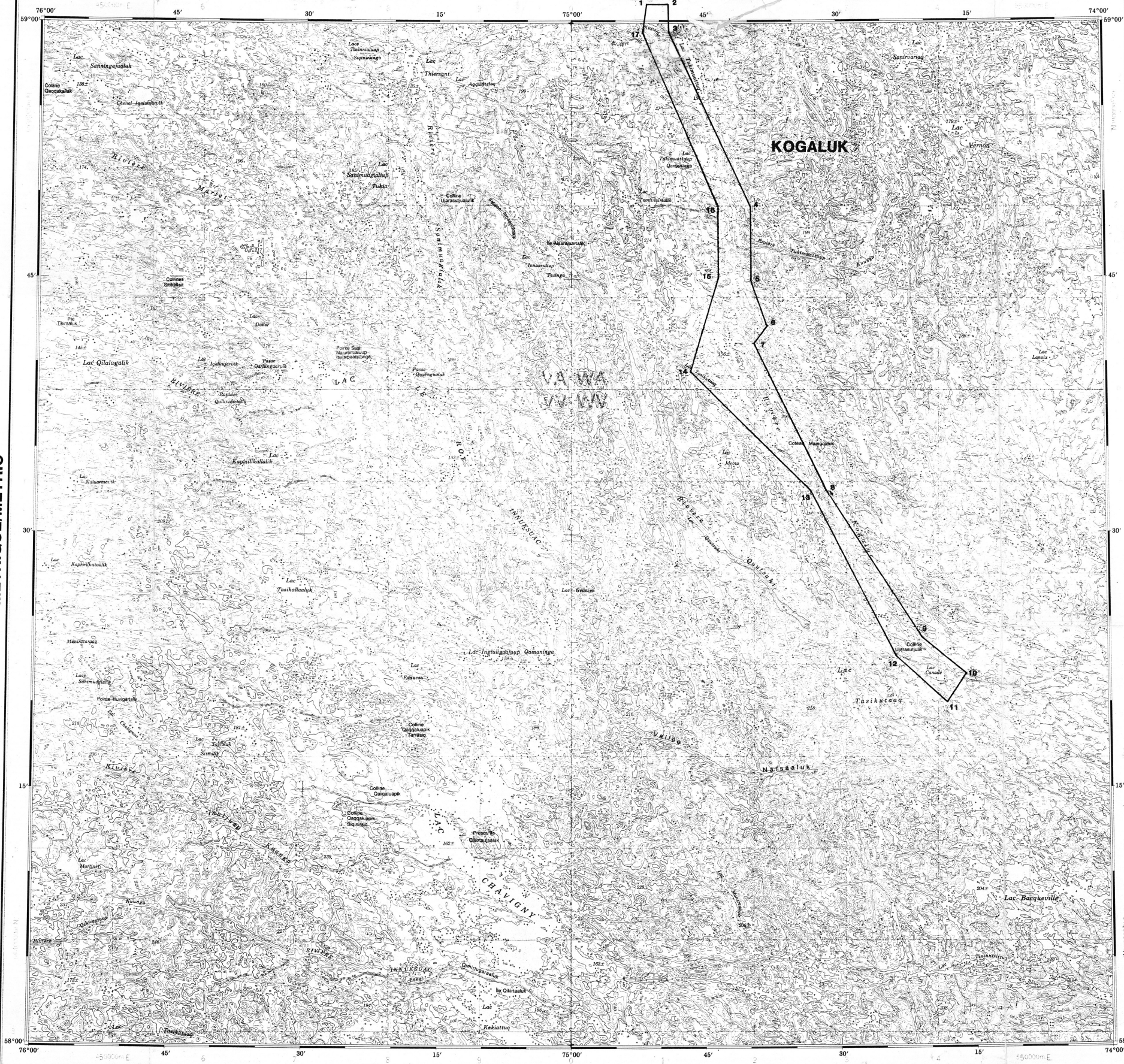
MER - S.I.S.E.M. 1994/02/18  
GM 52252

34 N	34 O	34 P
34 K	34 J	34 I
34 F	34 G	34 H

LOCATION MAP

LAC VERNON 34 J EDITION 2 EDITION

Énergie, Mines et Ressources Canada Energy, Mines and Resources Canada



ÉTABLI PAR LA DIRECTION DES LEVÉS ET DE LA CARTOGRAPHIE, MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES. THREE DE CARTES AU 1:50 000. RENSEIGNEMENTS À JOUR TELS QU'INDIQUÉS AU DIAGRAMME. PUBLIÉE EN 1986.

CES CARTES SONT EN VENTE AU BUREAU DES CARTES DU CANADA, MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOURCES, OTTAWA, OU CHEZ LE VENDEUR LE PLUS PRÈS.

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Pour tous renseignements concernant les repères et bornes géodésiques, s'adresser aux levés géodésiques, Direction des levés et de la cartographie, Ottawa.

LAC VERNON ADMINISTRATION RÉGIONALE KATIVIK QUÉBEC

Information concerning bench marks and horizontal survey monuments can be obtained from Geodetic Survey, Surveys and Mapping Branch, Ottawa.

PRODUCED BY THE SURVEYS AND MAPPING BRANCH, DEPARTMENT OF ENERGY, MINES AND RESOURCES, DERIVED FROM 1:50 000 MAPS. INFORMATION CURRENT AS SHOWN IN DIAGRAM. PUBLISHED IN 1986.

COPIES MAY BE OBTAINED FROM THE CANADA MAP OFFICE, DEPARTMENT OF ENERGY, MINES AND RESOURCES, OTTAWA, OR YOUR NEAREST MAP DEALER.

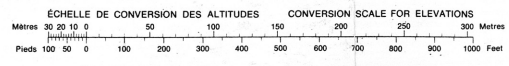
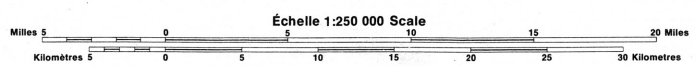
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1955-1956
1955
1955-1956

On a comparé cette carte aux images prises par satellite en 1983. Tous les caractéristiques ont été vérifiées et sont à jour. This map was compared with satellite imagery obtained in 1983 and found to be up-to-date in all major features.

Routes: Roads  
de terre: cart track  
sentier, percée ou passage: trail, cut line or passage

POUR UNE LISTE COMPLÈTE DES SIGNES, VOIR AU VERSO FOR COMPLETE REFERENCE SEE REVERSE SIDE

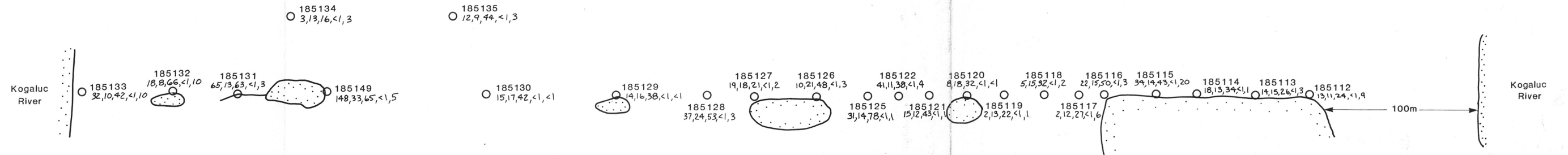
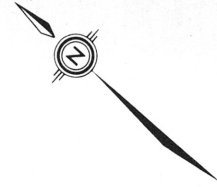


ÉQUIDISTANCE DES COURBES 20 MÈTRES Altitudes en mètres Contour Interval 20 Metres Elevations in Metres above Mean Sea Level

En 1985, la déclinaison magnétique varie vers l'ouest de 27°00' au centre du bord ouest à 25°00' au centre du bord est. La variation annuelle moyenne décroît de 8,3". Magnetic declination 1985 varies from 27°00' westerly at centre of west edge to 25°00' westerly at centre of east edge. Mean annual change decreasing 8.3".

Système de référence géodésique nord-américain, 1927 North American Datum 1927 Projection Transverse de Mercator Transverse Mercator Projection

Tableau d'assemblage du Système national de référence cartographique Index to adjoining Maps of the National Topographic System



N.T.S. 34-J-8  
 UTM E 530400  
 N 6482000

**LEGEND**

○ SOIL SAMPLE Cu,Pb,Zn,Ag,Au  
 81,23,48,2,1 ppm ppb

KOGALUC SOUTH				SOIL SAMPLING WEST OF GRID # 1 LINE AT 320°	
Drawn by:	V.G.	Traced by:	R.V.	Scale: 1:20,000 Date: July 18, 1993 Plate: 13	
Revised by:	Date	Revised by:	Date		