



42A02SE0037 OP92-444 POWELL

010

REPORT on  
GEOLOGICAL MAPPING, STRIPPING,  
SAMPLING, BLASTING and  
PROSPECTING PROGRAM  
102 GROUP  
POWELL & BANNOCKBURN TOWNSHIPS  
LARDER LAKE MINING DIVISION  
ONTARIO

M. Leahy  
November, 1992



42A02SE0037 OP92-444 POWELL

010C

## TABLE OF CONTENTS

	PAGE NO.
INTRODUCTION	
Access .....	1
Location .....	1
HISTORY .....	1 - 2
GEOLOGY .....	2
PURPOSE OF THE 1992 PROGRAM .....	3
WORK DONE	
Area 1: Southeast Portion .....	3
Area 2: 240W Trench, Bannockburn Twp. ....	3
Area 3: Galer Area .....	3
RESULTS: Area 1: Southeast Portion .....	4
CONCLUSIONS: Area 1: Southeast Portion .....	4
RECOMMENDATIONS: Area 1: Southeast Portion .....	4
Area 2: 240W Trench .....	5
Area 3: Galer Area .....	5
APPENDICES	
List of Claim Numbers .....	i
Index Map .....	ii
References .....	iii
Sample Descriptions ( <sup>4</sup> / <del>3</del> pages) .....	iv
Chemex Analyses .....	v
Assay Certificates (8 pages) .....	vi
Jensen Plot .....	vii
Cox Plot .....	viii
Irvine Plot .....	ix
240W Trench Map .....	x
Galer Map .....	xi
LARGE MAPS	
Geology	
Trench	

## INTRODUCTION

### Location:

The property herein described consists of 104 contiguous mining claims in northwest Powell Township and northeast Bannockburn Township, Larder Lake Mining Division, Ontario. (See Appendix i, for list of claim numbers.)

### Access:

Access is via Highway 565, an all-weather gravel road which traverses the north part of the property. The town of Matachewan lies about ten miles to the east along Highway 565. The Montreal River (Mistinikon Lake) lies immediately to the east and the Temagami land caution lies to the south and east. Three ATV roads provide access to the southeast portion, main and sulphide showings and the Galer area from points along Highway 566. (See Appendix ii, for Index Map.)

## HISTORY

The first recorded work was performed by Nautilus Exploration in 1972. Covering part of the Powell portion of the present property, the group was mapped, had Mag and VLF surveys performed and was subject to several shallow diamond drill holes with inconclusive results. In 1984, Johns Mansville did a small program of Mag and VLF EM-16 surveys, geological mapping and sampling on The Galer area in Bannockburn township. After lying dormant for several years, part of the Nautilus area was staked by M. Leahy and F. Kiernicki and optioned to Can-Mac Exploration, in 1987. A modest stripping program at that time resulted in the discovery of a gold showing just north of the syenite intrusion in altered chemseds and basalts with assays as high as 0.66 oz/Au/ton. The property was next optioned by Newmont Exploration of Canada, in 1988, who conducted a Mag survey over a now enlarged group of 102 claims, induced polarization over the original 17 claims worked by Can-Mac, and seven diamond drill holes. Only anomalous gold values were encountered in drilling and the option was allowed to lapse in 1989. A modest stripping program was then conducted by F. Kiernicki and M. Leahy, in 1990. This program resulted in extending the known gold zone to the west and the discovery of massive sulphide zone about 2,000 feet east of the gold showing. Only anomalous base metal values were obtained from this new sulphide showing but previously untested airborne EM conductors to the east along strike have aroused more interest as base metal targets. In 1991, as a result of the Robertson Twp. volcanogenic massive sulphide discovery, renewed interest in the area resulted in the optioning of 37 of the 102 claims covering the eastern 1/3 of the property. These 37 claims include the sulphide showing and

**HISTORY, cont'd.:**

the airborne EM conductors. The remaining 66 claims remain un-optioned and were the subject of a stripping and sampling program in 1991, by M. Leahy and F. Kiernicki. In February 1992, the option on the 37 claims was dropped by Regal Goldfields. In the 1992 field season a new claim was added along the south boundary immediately to the west of Mistinikon Lake. A Max-Min EM survey, geological mapping, stripping, sampling, blasting and prospecting were then performed mostly in the southeast portion of the property. (See Appendix iii, for References.)

**GEOLOGY**

The Powell Property is situated in the Matachewan area within the southwest Abitibi greenstone belt. Matachewan is a former gold mining camp which had two medium sized producers: the Young-Davidson and Matachewan Consolidated mines produced a total of 9 million tons grading a little over 0.1 oz/Au/ton. The Ryan Lake Mine, just west of Matachewan, produced over 4,753,650 pounds of copper, 1,309 oz of gold and 34,589 oz of silver. The Matarrow base metal mine shipped 40,000T to the Matachewan Consolidated mill. Extender Minerals operates a small Barite mine on the shore of Mistinikon Lake. The property is predominantly underlain by a series of E-W striking mafic volcanic flows which dip steeply and face north. Narrow lenses of argillite and chemseds occur along the north edge of a magnetic felsic stock near the centre of the property. The Main Showing is within chemseds and altered basalts within 300 feet of the north edge of the stock and just south of the 'carbonate' zone. Alteration in this area consists of carbonate, sericite, chlorite, silica and pyrite rich zones. Gold is found with pyrite in shear zones cutting altered basalts and sediments.

Ultramafic Komatiite flows were found at the east end of the south boundary at Mistinikon Lake, by M. Leahy, in 1991. These rocks were previously mapped as argillite or andesite and were the prime focus of the 1992 mapping program. They represent the western extension of the Kirkland Lake - Larder Lake Break along the southern rim of a large syncline similar to the syncline between the Kirkland Lake - Larder Lake Break and Destor - Porcupine Break. Both synclines are characterized by ultramafic Komatiite flows overlain by tholeiitic flows with a calc-alkalic sequence filling in the centre of the basin.

### PURPOSE OF THE 1992 PROGRAM

The stripping was designed to expose ultramafic flows and an electromagnetic conductor defined by a max-min survey. Mapping and sampling of the stripped areas was done in search of gold bearing alteration zones in or near the conductor and the ultramafic flows.

A very detailed map of the trenching was contracted to F. Ploeger, a local geologist with extensive experience in the Kirkland Lake - Matachewan area including his present tenure at the Deak - Kerr Mine in Virginiatown. Ankerite - sericite alteration has been used by Noranda Exploration as a key to finding new Delnite model orebodies in similar geology along the Destor - Porcupine fault east of Matheson. This new horizon has now been mapped for over one mile of strike, west of Mistinikon Lake.

### WORK DONE

Area 1: Southeast portion of 102 Group (22-27E along TL10S), Powell Township.

Excavating: A John Deere 792 Crawler - Excavator with a 1.5 cubic yard toothless bucket worked from September 8 - 14. About 1 km of road was made and five sites were excavated along TL 10S at 2225E, 23E, 2475E, 26E and 27E. About 600m of trenches were dug to a width of 3 - 5m and an average depth of 2m. Some sections of trench were covered with deep overburden and filled with water.

Washing: F. Kiernicki and P. Midtskogen worked from September 2nd to the 16th, supervising the excavator, washing trenches and mobilizing equipment. M. Leahy and F. Ploeger mapped and sampled the trenches.

Area 2: Bannockburn Township.

At 240W + 625S a trench was blasted and sampled by M. Leahy and F. Kiernicki, on October 13th. The area worked is immediately north of a well pyritized and silicified zone sampled in 1991.

Area 3: Galer Area, L2000W + 1200S, Bannockburn Township.

M. Leahy and F. Kiernicki spent one day prospecting the Galer area including the syenite zone, hillside vein, creek veins and North pits; six samples were taken.

**RESULTS: Area 1**

The program succeeded in unearthing excellent exposures of mafic to ultramafic flows overlying older argillite and graywacke units. The max-min conductor was found to be caused by a sheared, pyritized, graphitic argillite interflow sediment. The ultramafic flows are typical Komatiites exhibiting polygonal jointing, spinifex textures, fuchsite, talc-chlorite alteration, etc. The ultramafic complex is about 2000m wide, strikes E-W, dips and tops north. It is overlain by an intermediate-mafic sequence which is sericitized, carbonatized, silicified, sheared and deformed in places. The contact between these two groups is drift-covered and is probably sheared. Some ankerite is evident within the ultramafic flows and some large ankerite boulders were dug from the trench at 23E at TL 10S.

(Please refer to large Trench and Geology Maps and Appendices: (iv) Sample Descriptions, 3 pgs., (v) Chemex Whole Rock Analyses, (vi) Assay Certificates, 8 pgs., (vii) Jensen Plot, (viii) Cox Plot and (ix) Irvine Plot.)

**CONCLUSIONS: Area 1**

The area mapped contains all the geological ingredients for a Delnite type orebody including mafic-ultramafic contacts with sericite-ankerite alteration. No anomalous gold bearing zones were encountered in outcrop; but there are many unexposed sections along the trenches as well as elsewhere on the property. The stratigraphy is identical to that found along the Kirkland Lake - Larder Lake break with similar alteration and the potential to host an economic gold deposit. Large ankerite boulders unearthed in trenching suggest the presence of a wide zone of alteration within the map area. A wide zone of ankerite would weather to an ochrous mush and is unlikely to outcrop. The max-min conductors are caused by graphitic, pyritized argillaceous interflow sediments that are barren of gold enrichment where observed and sampled.

**RECOMMENDATIONS: Area 1**

1. Conduct an Induced Polarization survey over the map area in search of disseminated pyrite mineralization that may host gold-enriched zones, (15km).
2. Conduct a magnetic survey over parts of the property not covered by previous surveys, (5km).
3. Drill one hole across the southern half of the map area in search of buried alteration zones and/or to test any IP anomalies.

**Area 2: 240W Trench**

One day was spent blasting and sampling the 240W trench which was excavated in 1991. It lies just west of the Powell-Bannockburn township line in the south-central part of the 102 Group. A well pyritized zone of carbonatized, silicified chemseds and mafic flows was sampled in 1991 with disappointing results. The current blasting and sampling was done to the north of last year's work where the outcrop was smooth and no samples could be taken last year. About fifteen holes were drilled and blasted and four samples were taken with only trace gold values returned on assay. The area looks a lot like the area just west of the main showing at 550W + 600S, where highly anomalous values were obtained in 1990. Due to the poor sampling results no further work is contemplated in this area. (See 240W Map, Appendix (x).)

**Area 3: Galer Area**

One day was spent prospecting the Galer area, near the southwest corner of the 102 Group. Low gold values in a syenite stock contacting with mafic flows were discovered by earlier operators who did limited work a number of years ago. The area was re-visited in 1992 to look for extensions of the ultramafics found at the east end of the property. All the old pits were revisited and sampled and surrounding areas were examined. One whole rock analysis suggests the mafic flows are tholeitic basalt and only trace gold values were obtained from several other samples taken.

The syenite showing should be further investigated since it is similar to the Young-Davidson mine ore host at Matachewan. Any search for ultramafics should be carried out to the south and west of the syenite stock. (See Galer Map, Appendix (xi).)

*Michael Leahy*  
*Dec 31 92*

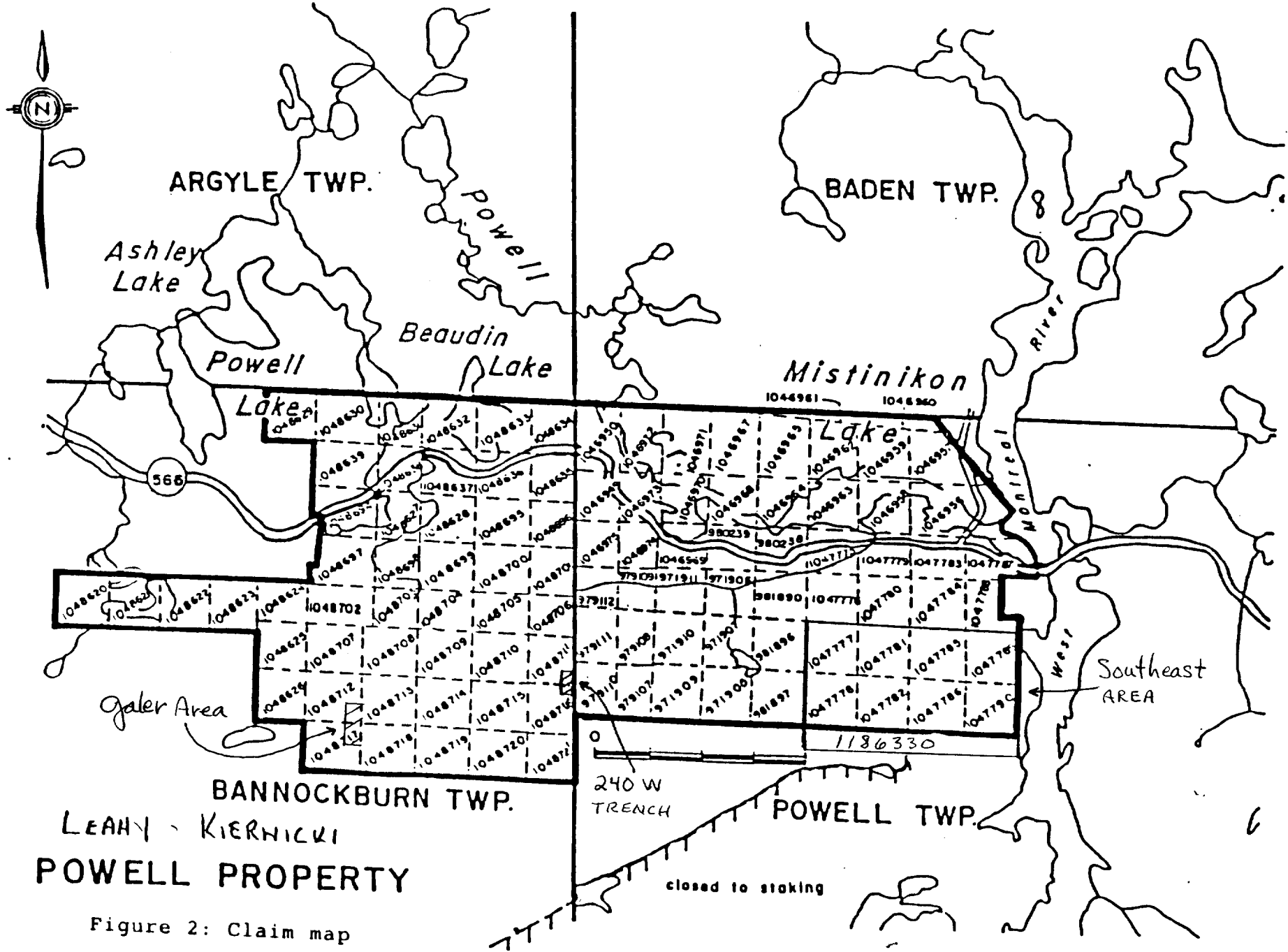
APPENDIX i

Claim Numbers of the '102 Group'

Powell/Bannockburn Twps

971906	1046950	1046974	1048620	1048638	1048710
971907	1046956	1046975	1048621	1048639	1048711
971908	1046957	1047775	1048622	1048694	1048712
971909	1046958	1047776	1048623	1048695	1048713
971910	1046959	1047777	1048624	1048696	1048714
971911	1046960	1047778	1048625	1048697	1048715
979107	1046961	1047779	1048626	1048698	1048716
979108	1046962	1047780	1048627	1048699	1048717
979109	1046963	1047781	1048628	1048700	1048718
979110	1046964	1047782	1048629	1048701	1048719
979111	1046965	1047783	1048630	1048702	1048720
979112	1046967	1047784	1048631	1048703	1048721
981890	1046968	1047785	1048632	1048704	1168872
981896	1046969	1047786	1048633	1048705	1186330
981897	1046970	1047787	1048634	1048706	
980238	1046971	1047788	1048635	1048707	
980239	1046972	1047789	1048636	1048708	
1046949	1046973	1047790	1048637	1048709	





LEAHY - KIERNICKI  
POWELL PROPERTY

Figure 2: Claim map

## Appendix iii

### References

1. Geology of Matachewan Area, GR51 ODM, Map 2110, Lovell, 1967.
2. Nautilus Explorations Ltd., Mag, VLF, Mapping, DD, 1972, Kirkland Lake Resident Geologist's Assessment Files.
3. Airborne Mag and EM Survey, ODM Preliminary Map 1022, Powell Township, 1975.
4. Johns Manville Canada Inc., Mag, VLF, Map, 1981, Kirkland Lake Resident Geologist's Assessment Files.
5. Can-Mac Exploration, Stripping, 1988, Kirkland Lake Resident Geologist's Assessment Files.
6. Newmont Exploration of Canada, Mag, I.P., DD, 1989, Kirkland Lake Resident Geologist's Assessment Files.
7. Structural Interpretation, W. Powell, Queen's University, 1989.
8. F. Kiernicki, Stripping, 1990, Kirkland Lake Resident Geologist's Assessment Files.
9. H. Lovell, Property Examination: Mapping, 1990, Kirkland Lake Resident Geologist's Files.
10. M. Leahy, Stripping, Sampling, 1991, Kirkland Lake Resident Geologist's Files.

## Appendix iv

## POWELL TOWNSHIP

## SAMPLE DESCRIPTIONS, 1992

MAP NO.	SAMPLE NO.	LOCATION	DESCRIPTION	ASSAY Au PPB or WRA
1	17601	2475E @ TL10S	Basalt, black, fine-grained, 2 - 4% py	33
2	17602	2600E @ TL10S	Argillite, fine-grained, black, graphitic	3
3	17603	2600E + 890S	Ultramafic Komatiite, black, fine-grained, rusty carbonate	3
4	17604	2600E + 895S	Ultramafic Komatiite, black, fine-grained, lacy QV, carbonate, trace pyrite	7
5	17605	2600E + 916S	Basalt, black, f-g, narrow QV, tr py	10
6	17606	2600E + 942S	Cherty, graphitic, black, vf-g flow? tr py	10
7	17607	2600E + 952S	Dike - gray, vf-g, aplite? tr py	3
8	17608	2600E + 968S	Basalt, black, f-g, carbonate, tr py	10
9	17609	2600E + 978S	Ultramafic Komatiite, gray-green, sericite and quartz	7
10	17610	2600E + 990S	Ultramafic Komatiite, 6-8% qtz threads & veins, carbonatized	3
11	17611	2600E + 1004S	Ultramafic, Komatiite, gray-green, QV, py	3
12	17612	2400E + 800S	Dacite, gray, f-g, foliated, carbonate, tr py	NA
13	17613	2400E + 365S	Dike? pink feldspar porphyry - green matrix	NA
14	17614	2200E + 700S	Dacite, gray-green, f-g, foliated, highly carbonatized	7
15	17615	1500E @ TL10S	Basalt, black, vf-g, silicified, sericite	NA
16	17616	2000E + 650S	Dacite, brown-creamy, sericite, highly carbonatized, QV	3
17	17617	2250E @ TL10S	Ankerite float - gray, vf-g, thick rust rind, tr py	3
18	17618	2600E + 1117S	Argillite, gray-brown, vf-g, banded, tr py	NA

POWELL TOWNSHIP  
SAMPLE DESCRIPTIONS, 1992

2

MAP NO.	SAMPLE NO.	LOCATION	DESCRIPTION	ASSAY Au PPB or WRA
19	17619	2600E + 1135S	Dike - black, f-g, mica, carbonatized	NA
20	17620	2700E + 1041S	Basalt - Komatiite, very rusty shear zone, 10% py	NA
21	17621	2700E + 952S	Basalt - Komatiite, very rusty shear zone, 10% py	NA
22	17622	2450E + 1000S	Argillite, black, rusty, graphitic shear zone, py	NA
23	17623	2275E + 1020S	Ankerite float, gray, vf-g, thick rust rind, tr py	NA
24	77241	2800E + 1065S	Basaltic Komatiite, dark green-gray, med. f-g, spinifex texture - (altered - See Jensen plots)	WRA
25	77242	2600E + 1040S	Ultramafic Komatiite, black, f-g, some ankerite seams, calcite, chlorite and talc	WRA
26	77243	3400E + 1150S	Ultramafic Komatiite, black, f-g, polygonal jointing, chlorite and talc	WRA
27	77244	3000E + 425S	Calc-alkalic Dacite, light gray-green, f-g, highly carbonatized, foliated	WRA
28	77245	3100E + 450S	Calc-alkalic Dacite, light gray-green, f-g, carbonatized, foliated	WRA
29	77246	2900E + 1115S	Basalt - iron tholeite, gray-green, f-g, foliated, weak carbonatization	WRA
30	77247	2900E + 375S	Calc-alkalic Rhyolite, light gray-green, f-g, sericitized, fractured, small slightly rusty vugs	WRA
31	77248	3400E + 900S	Basalt - Calc-alkalic, dark gray, f-g	WRA
32	77249	3150E + 1080S	Basaltic Komatiite, black, f-g, chlorite and talc, spinifex texture	WRA
33	77250	2700E + 950S	Ultramafic Komatiite, black, f-g, some ankerite, calcite seams, chlorite and talc - altered.	WRA

POWELL TOWNSHIP  
SAMPLE DESCRIPTIONS, 1992

3

MAP NO.	SAMPLE NO.	LOCATION	DESCRIPTION	ASSAY Au PPB or WRA
34	D-233	1400S + 2600E	Basalt - iron tholeite, dark gray-green, f-g, foliated	NA
35	D-229	1090S + 3100E	Ultramafic Komatiite, dark gray, f-g, ankerite, rust	NA
36		975S + 2900E	Basalt - iron tholeite, black, f-g, foliated, rust, tr py	NA
37	D-218	1450S + 2700E	Basalt, f-g, foliated, carbonate stringers	NA
38	D-219	1000S + 2600E	Basalt - highly altered, green, f-g, ultramafic	17
39	D-220	970S + 2700E	Ultramafic Komatiite, highly altered, gray-green, foliated, carbonatized, talc	NA
40	D-221	975S + 2700E	Basalt, black, f-g, carbonatized, chlorite	NA
41	D-222	955S + 2700E	Basalt, f-g, foliated	NA
42	D-223	500S + 2700E	Basalt, black, f-g, carbonatized, fragmental, 1% py	NA
43	D-224	975S + 2700E	Basalt, black, f-g, carbonatized, chlorite, variolitic	NA
44	D-226	725S + 3400E	Mafic Syenite, dark brick-red, mica, calcite stringers	NA
45	D-230	1400S + 3400E	Ultramafic Komatiite, gray, f-g, ankerite, chlorite	NA
46	D-234	1135S + 2800E	Argillite, gray-brown, banded	NA
47		975S + 2900E	Graphitic schist - highly foliated, black, argillite?	NA
48		522S + 2900E	Dacite, calc-alkalic, light gray-green, f-g, foliated, highly carbonatized	NA
49		1080S + 2900E	Basalt - Komatiite, black, f-g, altered, rust, carbonatized	NA

POWELL TOWNSHIP  
SAMPLE DESCRIPTIONS, 1992

4

MAP NO.	SAMPLE NO.	LOCATION	DESCRIPTION	ASSAY Au PPB or WRA
240W TRENCH AREA				
50	17624	240W + 625S	Chensed, pink & gray banded, vf-g, silicified, specularite, pyrite	7
51	17625	240W + 615S	Chensed, gray, vf-g, silicified, tr. pyrite	3
52	17626	240W + 615S	Chensed, gray-rusty, vf-g, hematite, calcite stringers, silicified, tr. pyrite	69
53	17627	240W + 625S	Chensed, pink & gray banded, vf-g, silicified, hematite, pyrite	10
GALER AREA				
54	17628	1800W + 1225S	Syenite - pink, m-g, milky QV, tr. py	NIL
55	17629	1900W + 1075S	Basalt, dark green-gray, f-g, silicified, epidote & pyrite stringers	NIL
56	17630	1950W + 1200S	Syenite - dark red, m-g, 10% pyrite	10
57	17631	2000W + 805S	Basalt - syenitized? f-g - m-g, QV, py	NIL
58	17632	2000W + 900S	Basalt - black, silicified, f-g, QV, py	21
59	17633	2000W + 900S	Basalt - black, vf-g, no alteration evident	WRA



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 5175 Timberlea Blvd., Mississauga,  
 Ontario, Canada L4W 2S3  
 PHONE: 416-624-2808

To: NORANDA EXPLORATION

P.O. BOX 1205  
 TIMMINS, ONTARIO  
 P4N 7J5

Project: 100  
 Comments: ATTN: JOHN WAKEFORD

Page Number: 1  
 Total Pages: 1  
 Certificate Date: 20-AUG  
 Invoice No.: 192192  
 P.O. Number:  
 Account: DHG

## CERTIFICATE OF ANALYSIS A9219244

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %	Ba ppm	Nb ppm	Rb ppm	Sr ppm	Y ppm	Zr ppm
77241	200 274	9.67	4.27	0.44	14.26	0.34	3.58	0.54	1.15	< 0.01	54.37	0.44	0.54	97.57	50	< 10	9	60	< 10	20
77242	200 274	3.09	4.66	0.18	7.35	0.03	20.40	0.10	0.02	< 0.01	35.80	0.17	17.90	97.71	< 10	< 10	< 5	40	< 10	10
77243	200 274	4.07	6.72	0.37	8.40	0.01	27.80	0.10	< 0.01	< 0.01	34.17	0.18	16.53	98.37	< 10	< 10	< 5	40	< 10	10
77244	200 274	13.44	8.11	< 0.01	3.24	2.43	1.92	0.11	2.03	0.03	60.40	0.20	0.66	100.65	370	< 10	59	100	< 10	90
77245	200 274	16.12	3.33	< 0.01	2.83	2.65	2.01	0.05	2.93	0.04	65.57	0.32	4.77	100.65	280	< 10	70	130	< 10	90
77246	200 274	9.75	2.45	0.40	8.12	1.54	3.59	0.20	0.29	< 0.01	66.91	0.47	5.01	98.74	420	< 10	66	20	< 10	20
77247	200 274	15.80	2.76	< 0.01	2.26	3.34	0.70	0.05	2.25	0.08	69.55	0.39	4.05	101.30	520	< 10	81	90	< 10	100
77248	200 274	14.18	5.84	< 0.01	10.35	0.80	4.59	0.15	2.67	0.03	80.57	0.85	6.14	98.17	250	< 10	11	160	20	50
77249	200 274	7.76	14.70	0.20	10.86	0.34	8.10	0.30	0.68	< 0.01	38.70	0.40	16.95	97.78	50	< 10	8	150	10	20
77250	200 274	13.95	1.94	0.61	21.10	0.05	5.52	0.32	1.58	< 0.01	47.94	0.66	6.74	100.40	80	< 10	< 5	60	50	10

CERTIFICATION: \_\_\_\_\_

M. LEAHY

2W-1105-RG1

FAX.:705-567-4693

Laboratoires TSL/ASSAYERS Laboratories

780 AV. DU CUIVRE C.P. 665 ROUYN-NORANDA QUEBEC J9X 5C6

PHONE #: 819-797-4653

FAX #: 819-797-4501

REPORT No. : T2120

Page No. : 1 of 1

File No. : OC22RA

Date : OCT-23-1992

I.C.A.P. WHOLE ROCK ANALYSIS

Lithium MetaBorate Fusion

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	Y	Sc	LOI	TOTAL
	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	%	%
17633	53.55	12.85	16.67	4.78	4.33	4.07	0.88	1.97	0.31	0.26	302	168	133	56	48	1.05	100.72







Established 1928

# Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

## Geochemical Analysis Certificate

2W-0972-RG1

Company: **MIKE LEAHY**

Date: SEP-03-92

Project:

Attn:

We hereby certify the following Geochemical Analysis of 1 ROCK samples submitted SEP-01-92 by .

Sample Number	Au PPB
17601	33

Certified by Donna Gardner



Established 1928

# Swastika Laboratories

A Division of TSL/Assayers Inc.

Assaying - Consulting - Representation

## Geochemical Analysis Certificate

2W-1024-RG1

Company: **M. LEAHY**

Date: SEP-30-92

Project:

Attn:

We hereby certify the following Geochemical Analysis of 1 ROCK samples submitted SEP-24-92 by .

Sample Number	Au PPB	Au oz / ton
17602	3	Nil

Certified by Donna Gardner

P.O. Box 10, Swastika, Ontario P0K 1T0  
Telephone (705) 642-3244 FAX (705) 642-3300



Established 1928

# Swastika Laboratories

A Division of TSL/Assayers Inc.

Assaying - Consulting - Representation

## Geochemical Analysis Certificate

2W-1043-RG1

Company: **M. LEAHY**

Date: OCT-02-92

Project:

Attn:

We hereby certify the following Geochemical Analysis of 9 ROCK samples submitted SEP-28-92 by .

Sample Number	Au PPB
17603	3
17604	7
17605	10
17606	10/10
17607	3/3
17608	10
17609	7
17610	3
17611	3

Certified by Donna Gardner



Established 1928

# Swastika Laboratories

A Division of TSL/Assayers Inc.

Assaying - Consulting - Representation

## Geochemical Analysis Certificate

2W-1060-RG1

Company: **M. LEAHY**

Date: OCT-06-92

Project:

Attn:

We hereby certify the following Geochemical Analysis of 1 ROCK samples submitted OCT-02-92 by .

Sample  
Number

Au  
PPB

-----  
17617

-----  
3

Certified by *Loon Jorina*



Established 1928

# Swastika Laboratories

A Division of TSL/Assayers Inc.

Assaying - Consulting - Representation

## Geochemical Analysis Certificate

2W-1091-RG1

Company: **M. LEAHY**

Date: OCT-15-92

Project:

Copy 1. KIRKLAND LAKE

Attn:

2. FAX #567-4693

We hereby certify the following Geochemical Analysis of 4 ROCK samples submitted OCT-14-92 by .

Sample Number	Au PPB
17624	7
17625	3
17626	51/69
17627	10

Certified by Donna Jordan

P.O. Box 10, Swastika, Ontario P0K 1T0  
Telephone (705) 642-3244 FAX (705) 642-3300



Established 1928

# Swastika Laboratories

A Division of TSL/Assayers Inc.

Assaying - Consulting - Representation

## Geochemical Analysis Certificate

2W-1105-RG1

Company: **M. LEAHY**

Date: OCT-20-92

Project:

Attn:

We hereby certify the following Geochemical Analysis of 6 ROCK samples submitted OCT-16-92 by .

Sample Number	Au PPB
17628	Nil
17629	Nil
17630	10
17631	Nil
17632	21/21
17633	WRA

Certified by *Constance L. ...*



Established 1928

# Swastika Laboratories

A Division of TSL/Assayers Inc.

Assaying - Consulting - Representation

## Geochemical Analysis Certificate

2W-1170-RG1

Company: **M. LEAHY**

Date: NOV-18-92

Project:

Attn:

We hereby certify the following Geochemical Analysis of 3 rock samples submitted NOV-12-92 by .

Sample Number	Au PPB	Au check PPB
219	17	14
17614	7	
17616	3	

Certified by \_\_\_\_\_

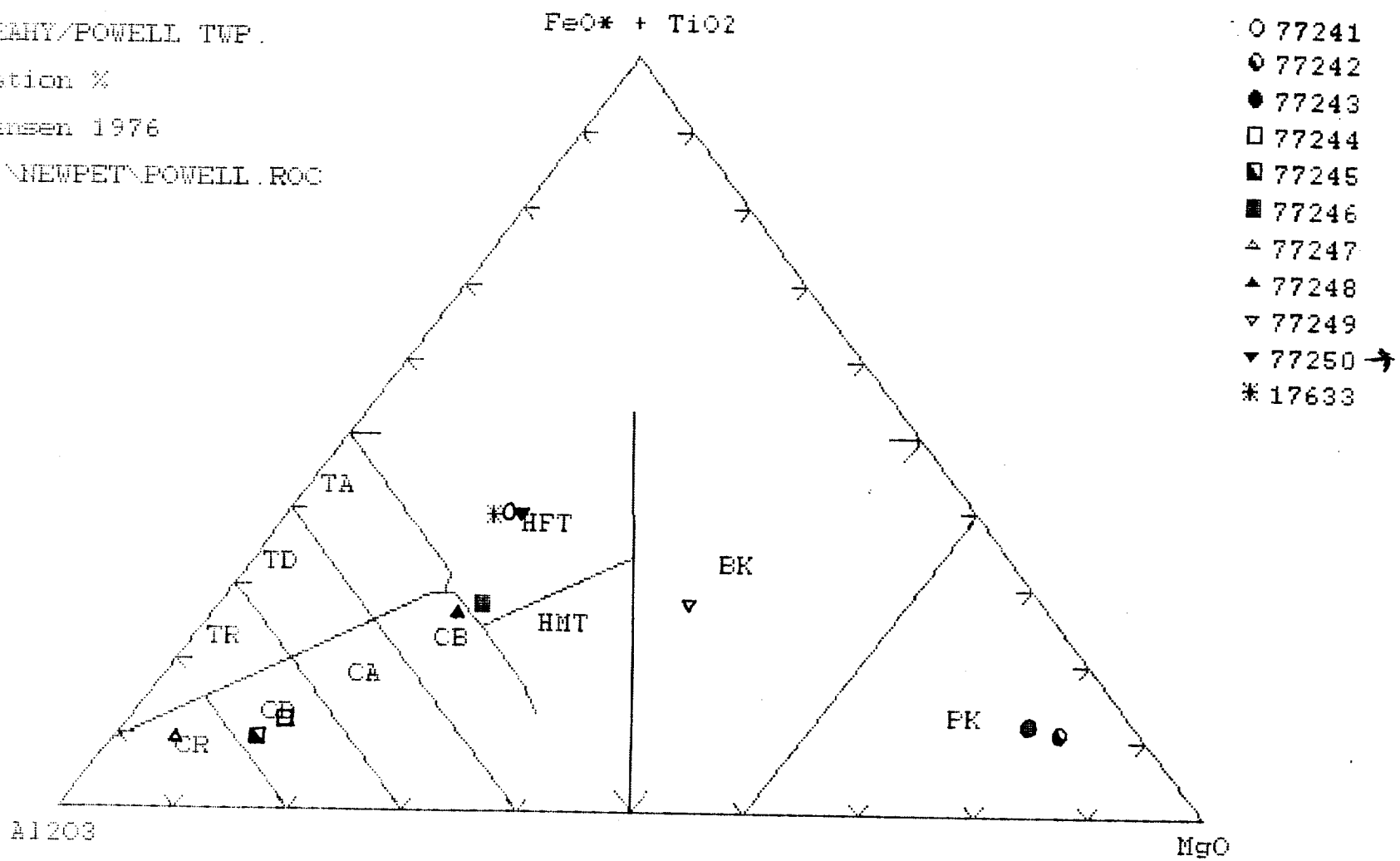
P.O. Box 10, Swastika, Ontario P0K 1T0  
Telephone (705) 642-3244 FAX (705) 642-3300

JEANY/POWELL TWP.

Cation %

Jensen 1976

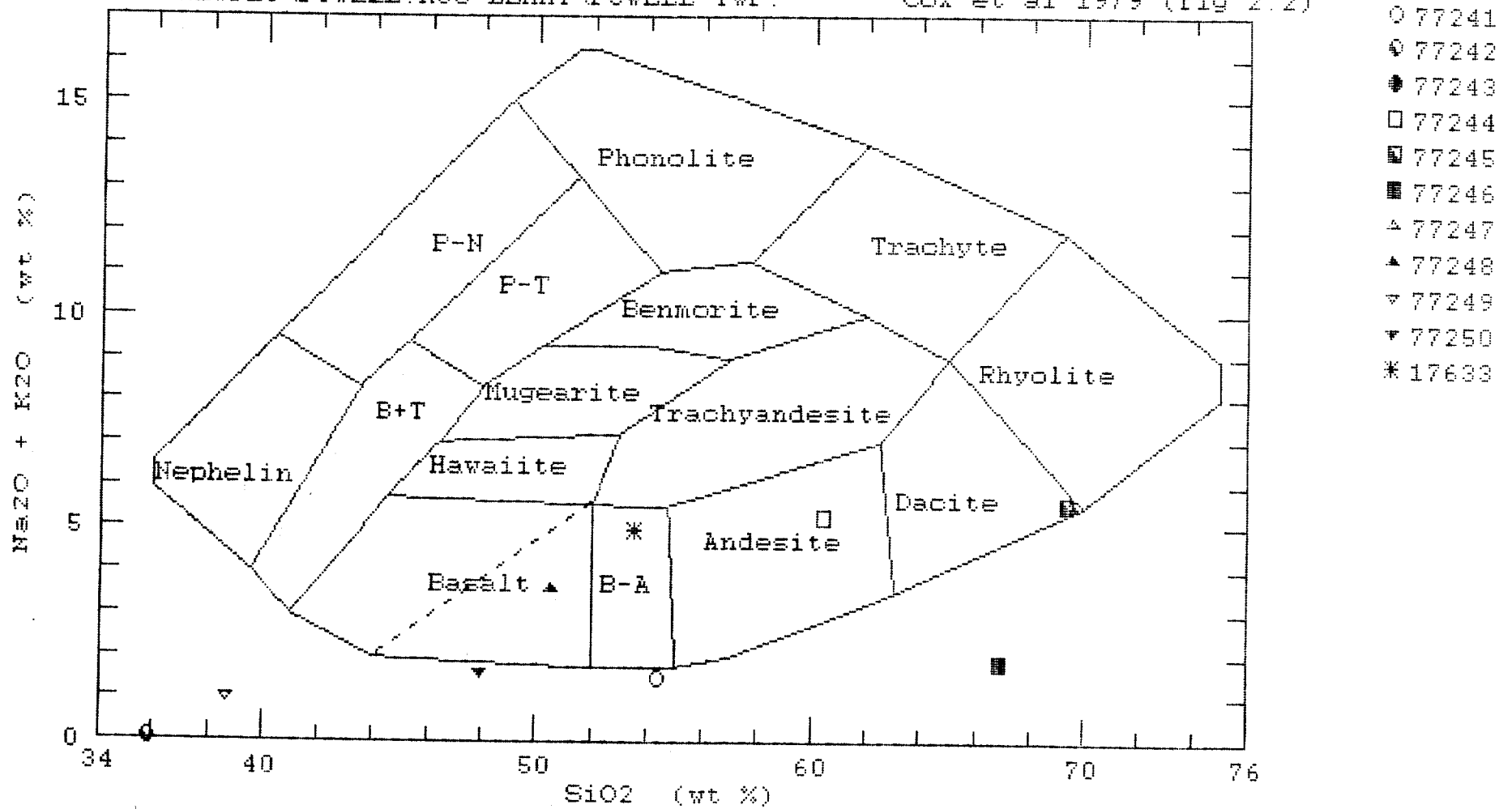
NEWPET POWELL ROC



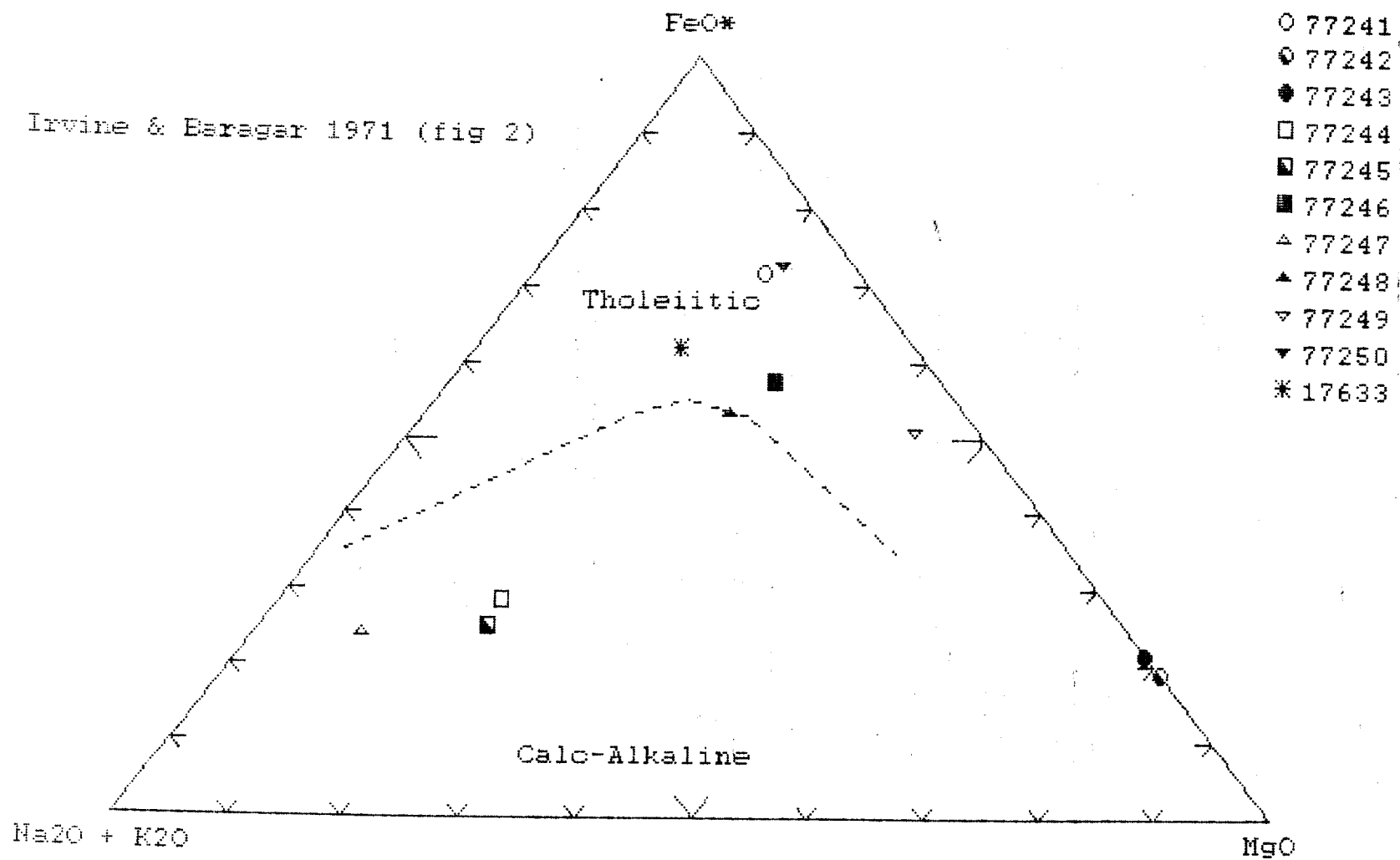


C:\NEWPET\POWELL.ROC LEAHY\POWELL TWF.

Cox et al 1979 (fig 2.2)



Irvine & Baragar 1971 (fig 2)

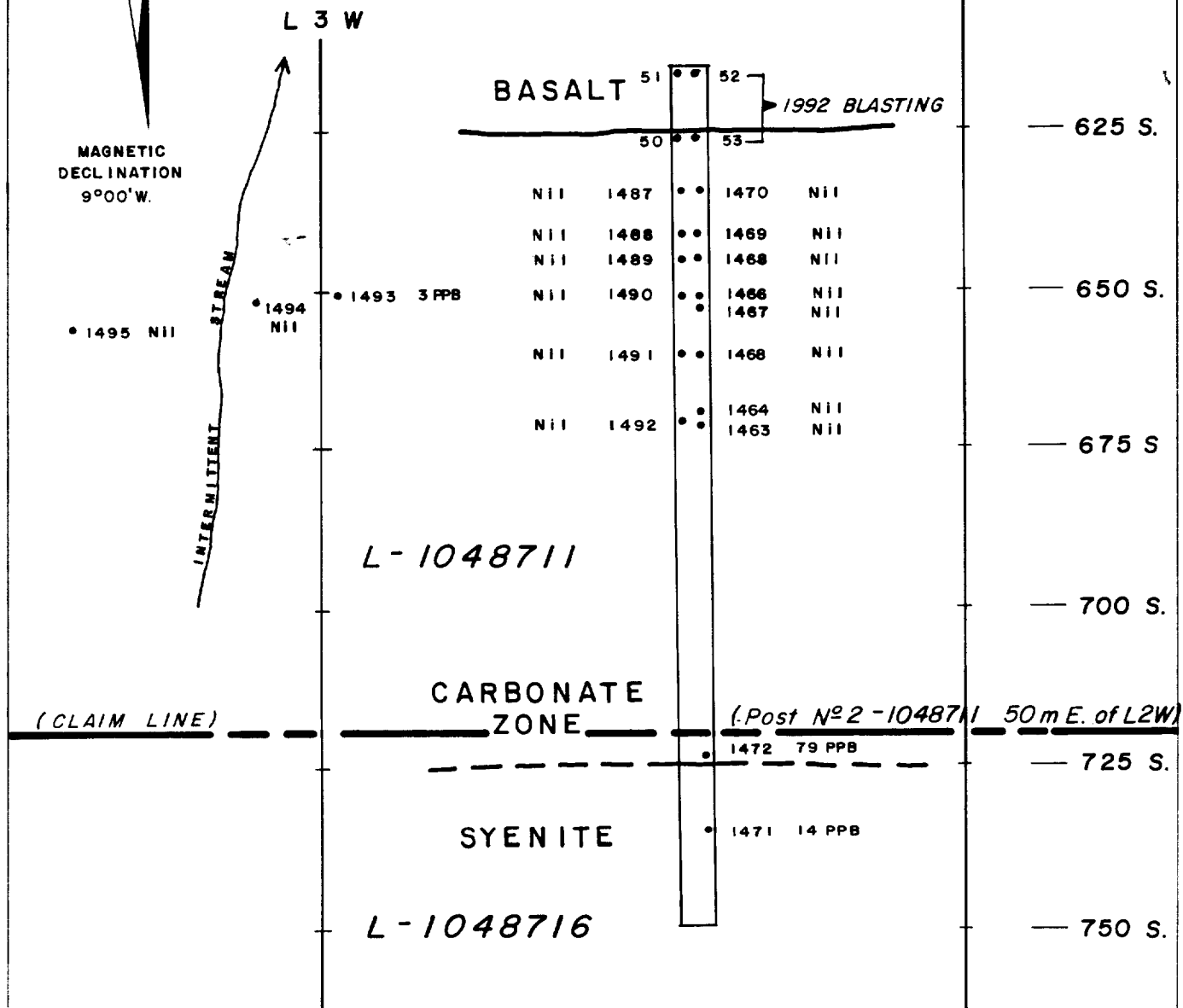
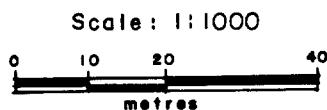
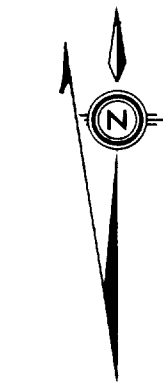


# PLAN of 1991 STRIPPING & SAMPLING

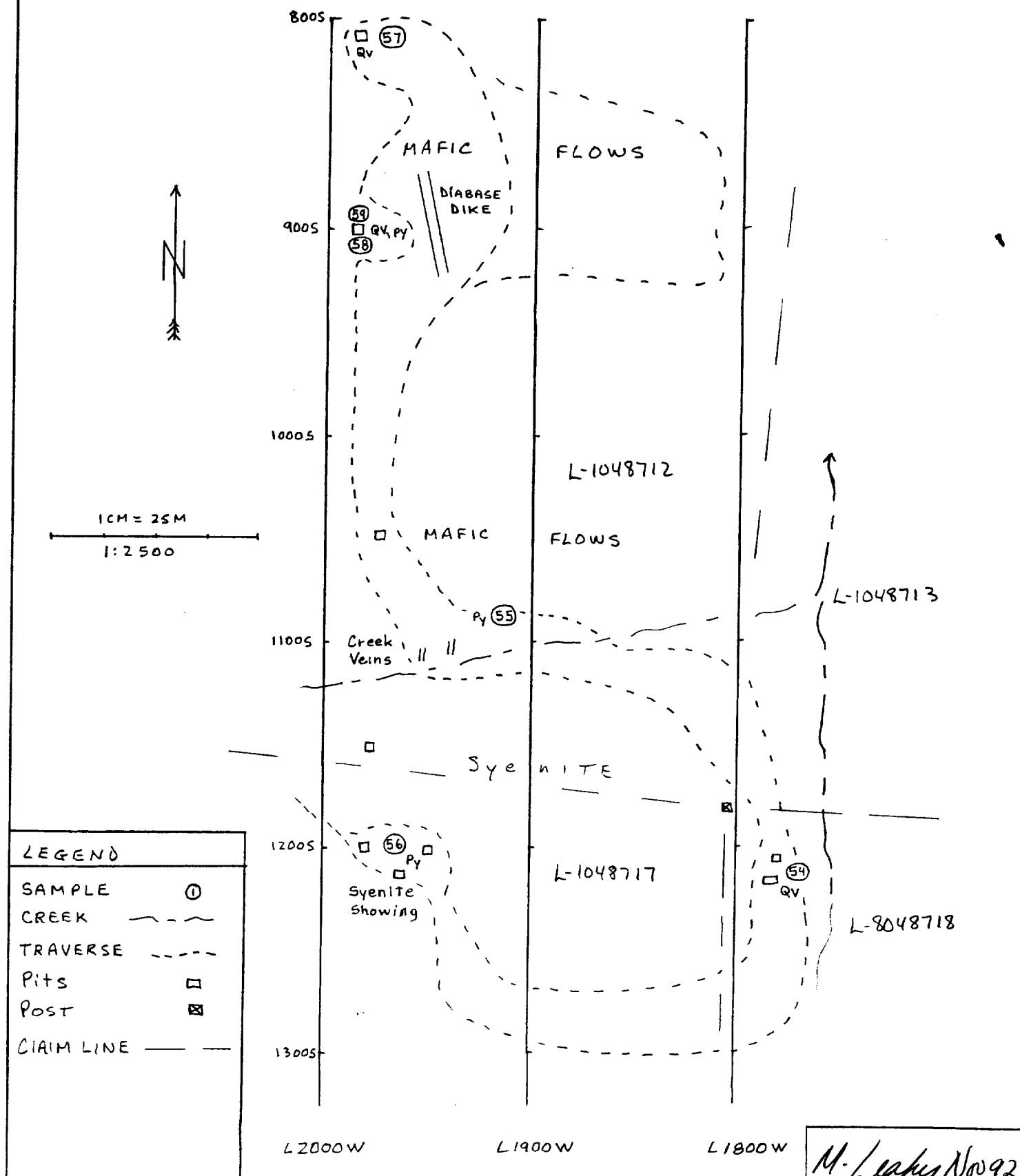
## 240 W. TRENCH

BANNOCKBURN TWP.

L 2 W



GALER AREA PROSPECTING  
 102 GROUP  
 BANNOCKBURN Twp



DETAILED LIST OF EXPENDITURES

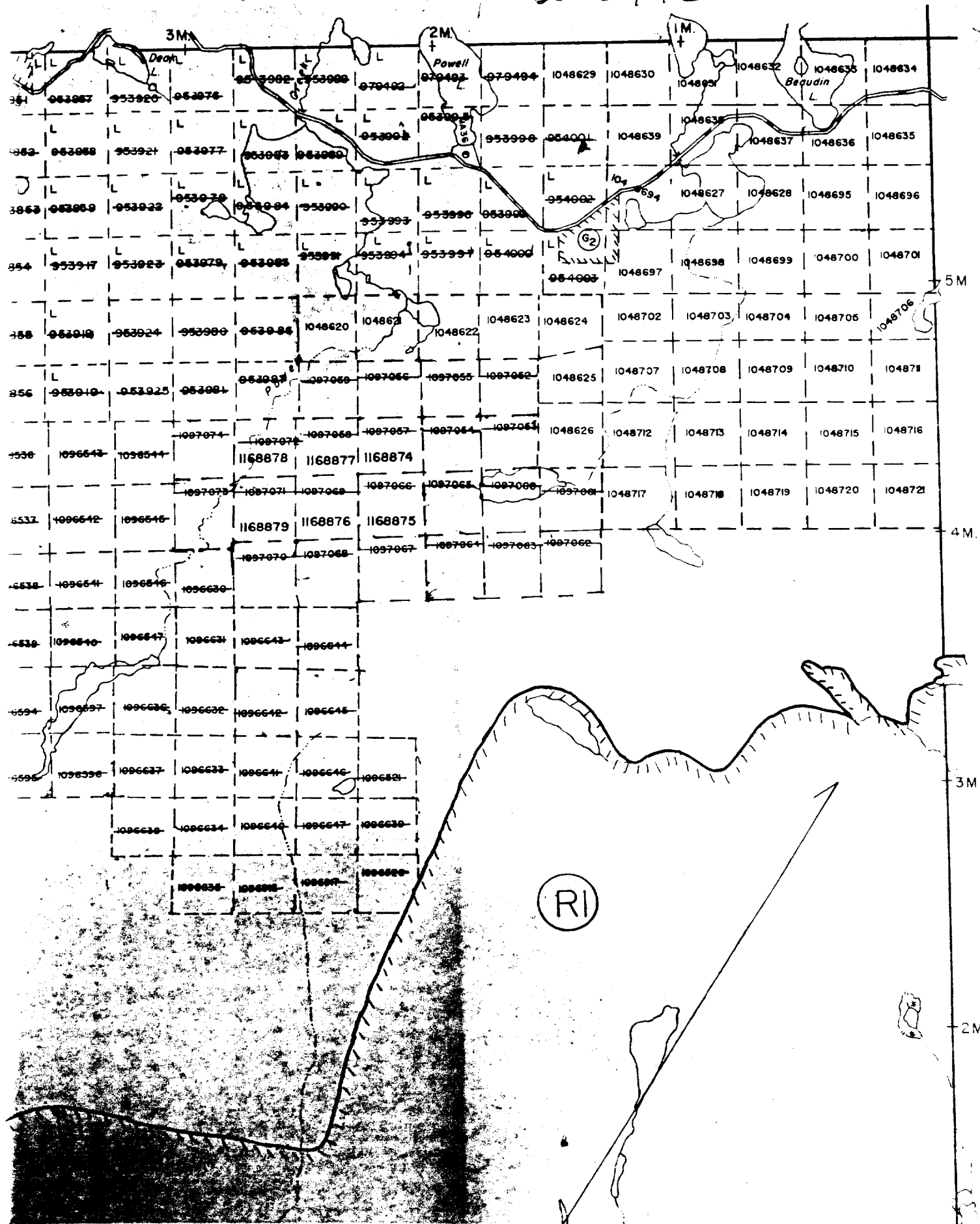
INVOICE #	Date	Recipient	Nature of expense	Amount \$\$
1584	15/09/92	A. MacIntyre & Assoc.	Excavator rental, mob & demob	5,234.98
# N/A	22/09/92	P. Midstkogen	9 days: washing trenches, hoe supervision, etc.	900.00
35510	21/09/92	P. Kiernicki	8 days: washing trenches, hoe supervision, etc.	800.00
		"	8 days: pump rental @ \$50./day	400.00
		"	8 days: hose rental 11 @ \$7./day	616.00
		"	Mileage: 324km @ \$.30/km	97.20
# N/A	15/10/92	"	Prospecting Galer area, Bannockburn Twp.	100.00
# N/A	13/10/92	"	Plugger, blasting, sampling 240W Trench	100.00
# N/A	21/10/92	F. Ploeger	Mapping trenches: 2 days @ \$200./day	400.00
49651	09/11/92	B. Madill	Drafting of trench map 17.5 hr @ \$15./hr	262.50
27706	03/09/92	Swastika Laboratory	Au Assay - 1 sample	12.57
27771	30/09/92	"	" - 1 sample	12.57
27778	02/10/92	"	" - 9 samples	113.15
27799	06/10/92	"	" - 1 sample	12.57
27834	15/10/92	"	" - 4 samples	50.29
27843	20/10/92	"	" - 5 & 1 extra sample prep.	66.07
34790	30/10/92	"	Whole Rock Analysis - 1 sample	22.47
27906	18/11/92	"	Au Assay - 3 samples	37.72
# N/A	02/10/92	Chemex Laboratory	Whole Rock Analysis - 10 samples	224.70
	17/09/92	M. Leahy	Hauling pump, hoses out of bush, cleanup	100.00
	27/09/92	"	Mapping trenches with F. Ploeger	100.00
	04/10/92	"	"	100.00
	17/09/92	"	Mileage: 160km @ \$.30/km	48.00
	27/09/92	"	"	48.00
	04/10/92	"	"	48.00
	15/10/92	"	Prospecting Galer area, Bannockburn Twp.	100.00
	13/10/92	"	Plugger, blasting, sampling 240W Trench	100.00
	24/11/92	"	Report Writing	100.00
	25/11/92	"	Report Writing	100.00
4551	21/10/92	Thunder Bay Compressors	Choke assembly for plugger	38.48
	1,8,9,10,11, 13,14,15,16, 17,27,30/09 & 1,4,13,15/10	M. Leahy	ATV Mileage: 16 days @ 5km/day @ \$.30/km	24.00
	30/11/92	A. Black	Word Processing: 3hr @ \$16.67/hr.	50.00
TOTAL				10,419.27

DAILY REPORTS

DAY	PROJECT AREA	DATE	WORK PERFORMED
1	Southeast portion of 102 Group	17/09/92	Hauling pump, hoses out bush, cleanup
2	Southeast portion of 102 Group	27/09/92	Mapping trenches with F. Ploeger
3	Southeast portion of 102 Group	04/10/92	Mapping trenches with F. Ploeger
4	240W + 625S Trench	13/10/92	Blasting, sampling
5	Galer Area, Bannock- burn Twp.	15/10/92	Prospecting, sampling
6	Home Office	24/11/92	Report Writing
7	Home Office	25/11/92	Report Writing

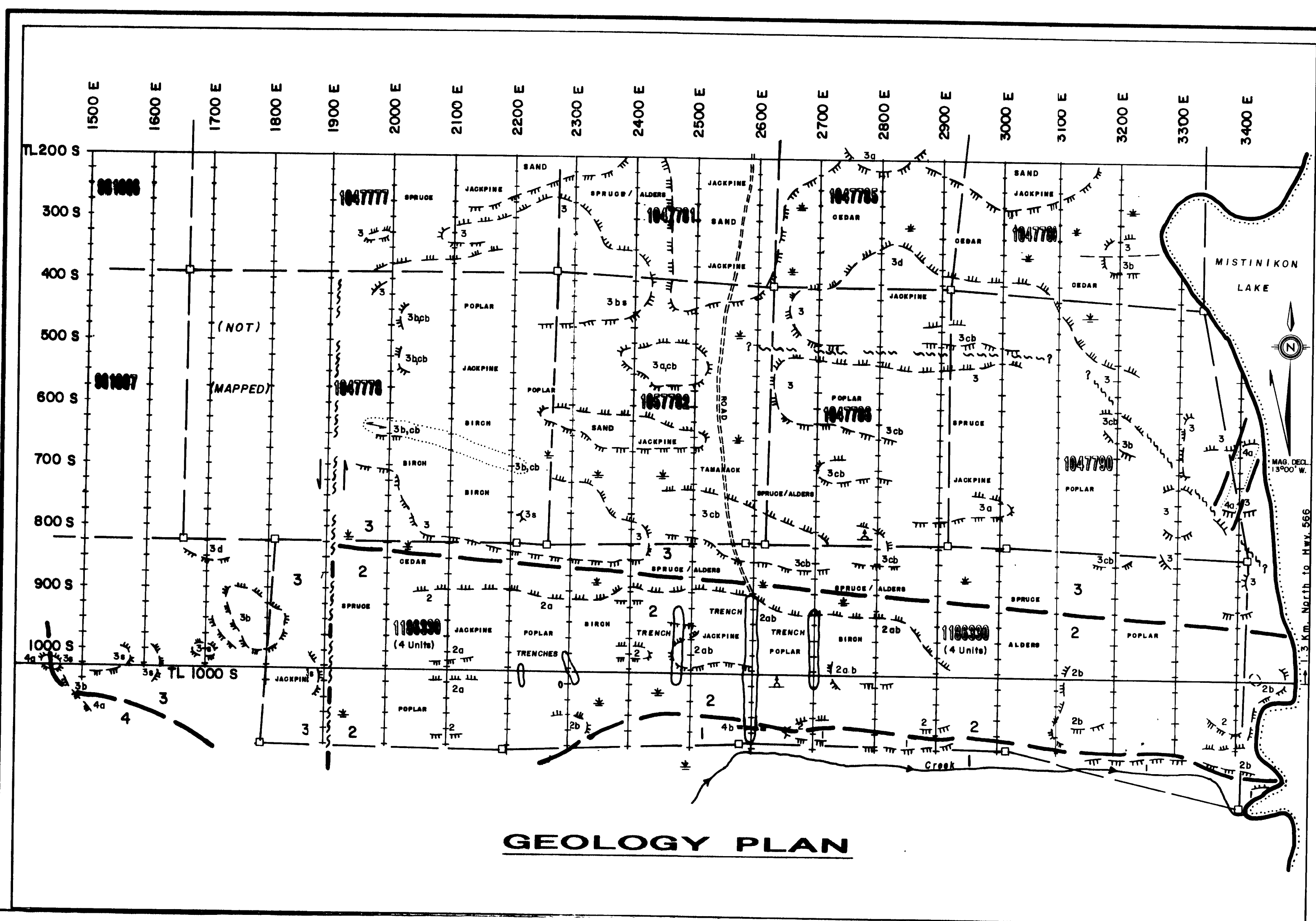
ARGYLE TWP. - M.203

Bannockburn Twp 102 group  
Dec 3 192

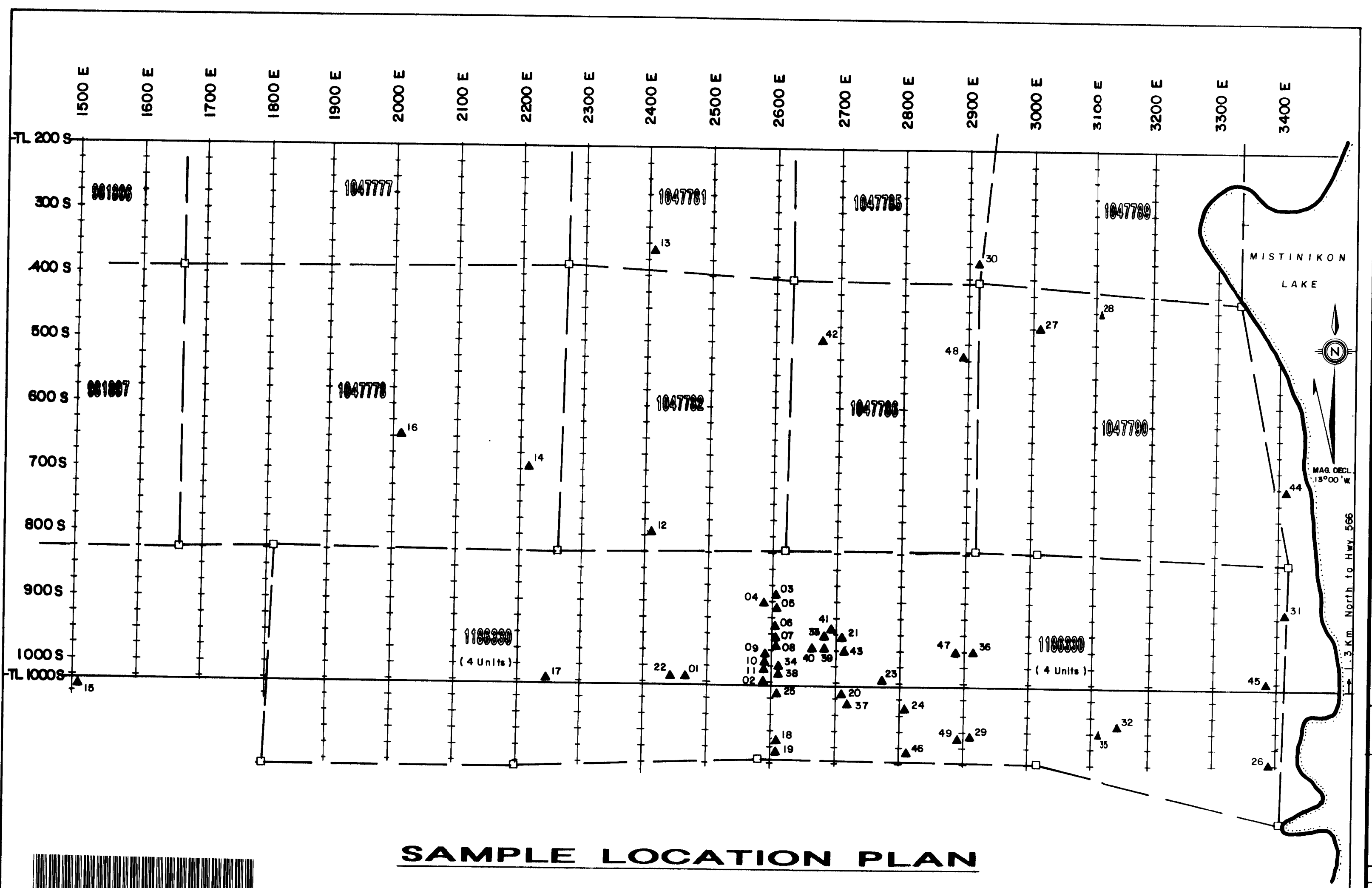
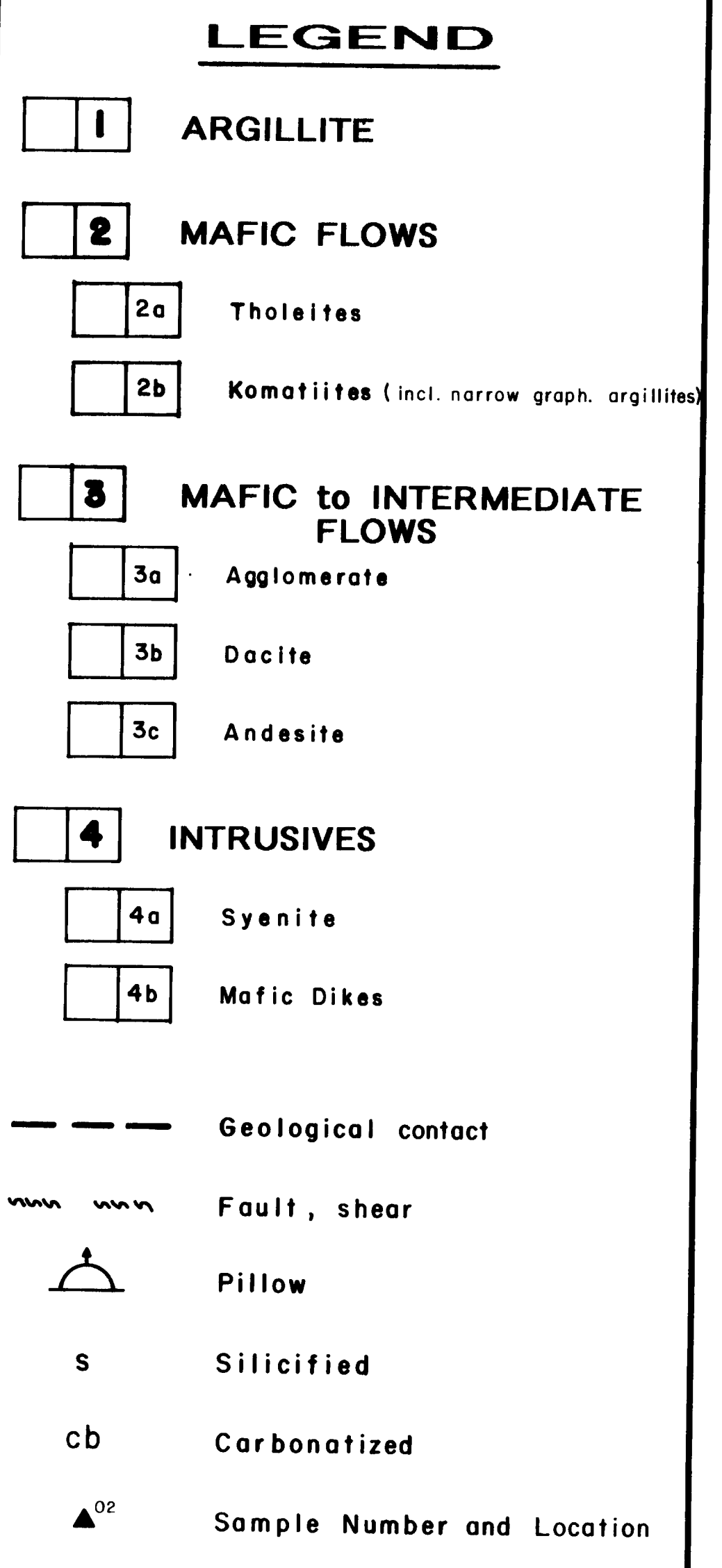




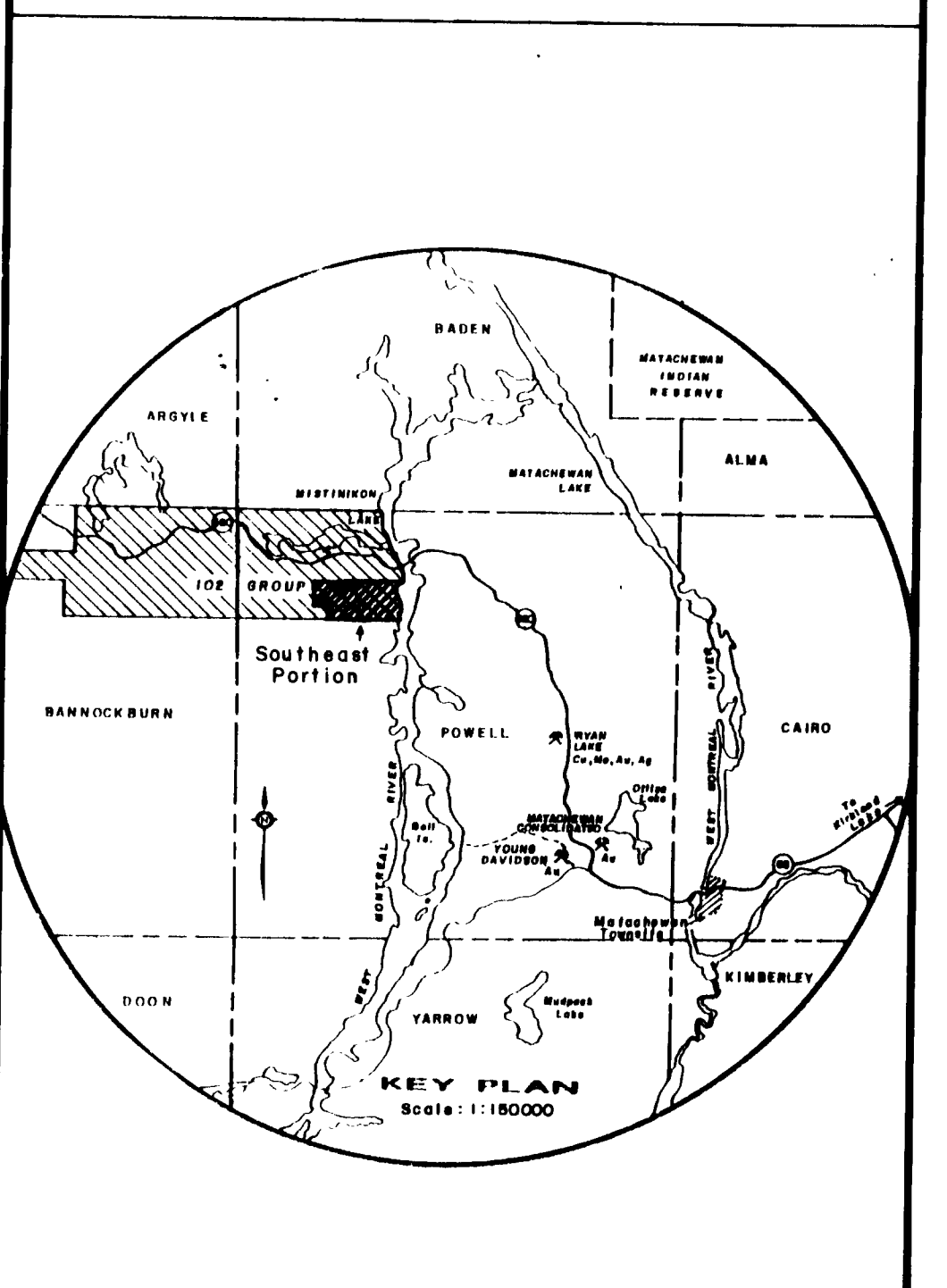




**GEOLOGY PLAN**



**SAMPLE LOCATION PLAN**



**LEAHY/KIERNICKI CLAIMS**

**102 GROUP**  
(Southeast Portion)  
POWELL TWP.  
LARDER LAKE MINING DIVISION

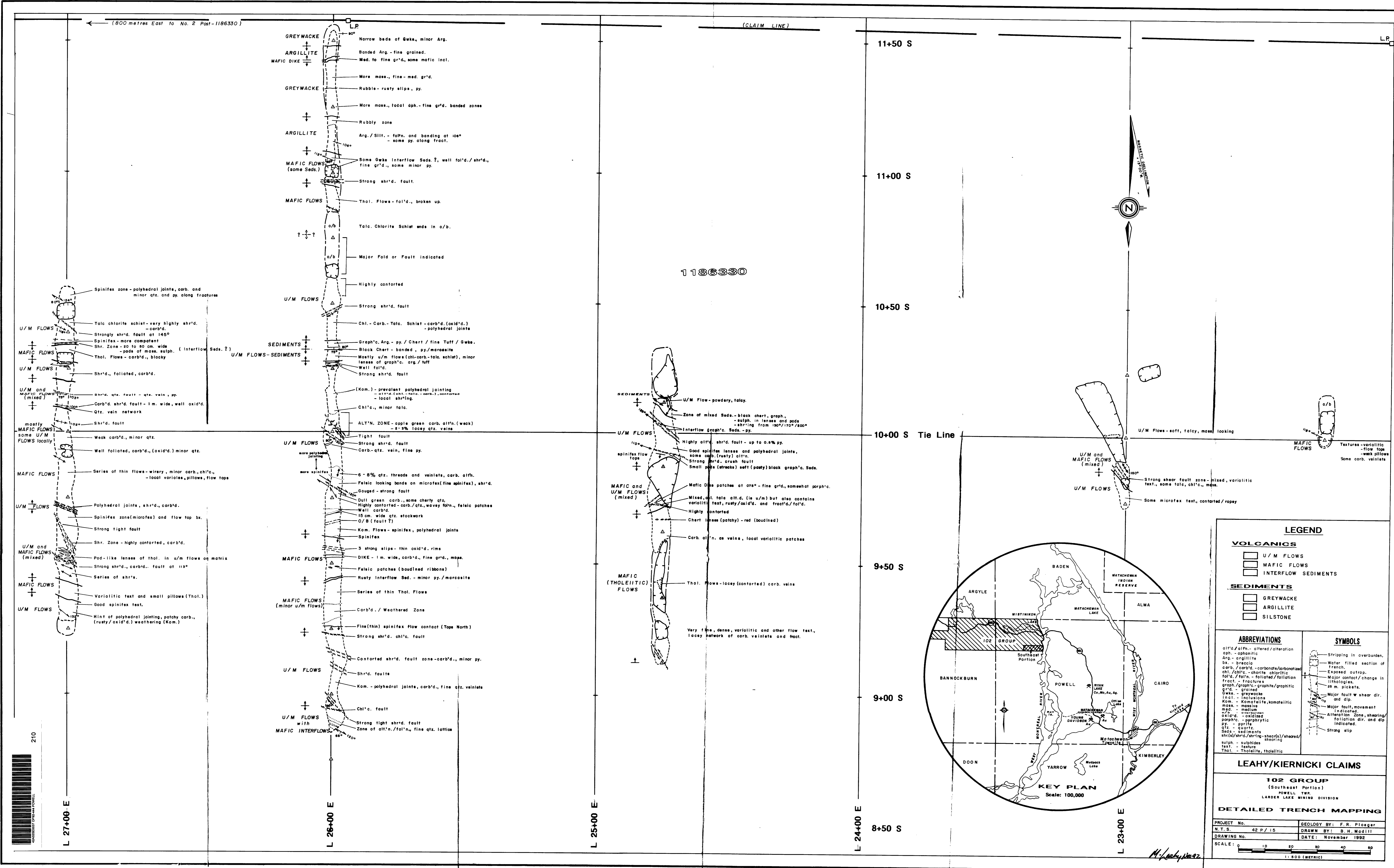
**GEOLOGY PLAN**  
and  
**SAMPLE LOCATION PLAN**

PROJECT No	GEOLOGY BY: M. Leahy
N.T.S	DRAWN BY: B.H. Madill
DRAWING No	DATE: November, 1992
SCALE:	

0 100 200 300  
1:5000 (METRES)



*Michael Leahy Nov 1992*



**LEGEND**

**VOLCANICS**

- U/M FLOWS
- MAFIC FLOWS
- INTERFLOW SEDIMENTS

**SEDIMENTS**

- GREYWACKE
- ARGILLITE
- SILTSTONE

**ABBREVIATIONS**

alt/c - altered/alteration  
 aph - aphanitic  
 Arg - argillite  
 br - breccia  
 carb./carb'd - carbonate/carbonated  
 chl./chlc - chlorite/chloritic  
 fol'd./fol'te - foliated/foliation  
 frag. - fracture  
 graph./graph'c - graphite/graphitic  
 gnd - gneiss  
 gwa - greynwacke  
 incl - inclusion  
 kom - komatiite/komatiitic  
 mass - massive  
 med - medium  
 rdy - rusty  
 silt - siltstone  
 sp - spinifex  
 st - striae  
 sulph - sulphide  
 thol - tholeiitic

**SYMBOLS**

- Stripping in overburden
- Water filled section of trench
- Exposed outcrop
- Major contact/change in lithology
- as m. pickets
- Major fault w shear dir. and dip
- Major fault movement indicated
- Alteration Zone, shearing foliation dir. and dip indicated
- Strong slip

**LEAHY/KIERNICKI CLAIMS**

**102 GROUP**  
 (Southeast Portion)  
 POWELL TWR.  
 LARDER LAKE MINING DIVISION

**DETAILED TRENCH MAPPING**

PROJECT No. GEOLOGY BY: F. R. Ploeger  
 N.T.S. 42 P / 15 DRAWN BY: B. H. Madill  
 DRAWING No. DATE: November 1992  
 SCALE: 1:500 (METRIC)