

DESCRIPTIVE NOTES

INTRODUCTION
 The Angikuni Lake area straddles the Shield tectonic zone, the boundary between the Rae and Hearne provinces (Figure 1). New mapping is a component of the Western Churchill Project (WCP) and is part of the Hearne Province (HP) project. The WCP is a multi-phase project that will update reconnaissance maps by Fata and Eade (1985, 1986) and Eade (1986). The project map of 1:250,000 scale is the first map of the area since 1986.

In the Angikuni Lake area, Archean map units define five fault-bounded tectonostratigraphic domains (Figure 2, numbered 1-5) from east to west. Domain I consists of mafic volcanic rocks, including mafic volcanic flows and mafic sills, both of which are cut by large granitic bodies. Domain II consists of mafic volcanic rocks, including mafic volcanic flows and mafic sills, both of which are cut by large granitic bodies. Domain III consists of mafic volcanic rocks, including mafic volcanic flows and mafic sills, both of which are cut by large granitic bodies. Domain IV consists of mafic volcanic rocks, including mafic volcanic flows and mafic sills, both of which are cut by large granitic bodies. Domain V consists of mafic volcanic rocks, including mafic volcanic flows and mafic sills, both of which are cut by large granitic bodies.

Geochronological and isotopic studies
 Geochronological and isotopic studies are ongoing, a complete set of data may be found in Cousens (1998). Volcanic rocks in Domain I and II follow a tectonic-trend in major element chemistry. Trace elements are generally enriched in light REE, but commonly display greater abundance of Ba, Rb, and K. Notable from Domain I volcanic rocks are large negative Nb-Ta anomalies. The gabbro samples have Nd values of -3.6 to -2.8, indicating a source similar to that of the gabbro in Domain II. The mafic volcanic rocks in Domain I and II have negative Nb-Ta anomalies, indicating a source similar to that of the gabbro in Domain II. The mafic volcanic rocks in Domain III and IV have positive Nb-Ta anomalies, indicating a source similar to that of the gabbro in Domain I. The mafic volcanic rocks in Domain V have positive Nb-Ta anomalies, indicating a source similar to that of the gabbro in Domain I.

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Geological boundary (approximate)
 Geological boundary (approximate) ...
 Bedding, strike and dip (approximate) ...
 Foliation in supracrustal rocks, unspaced (approximate) ...
 Foliation in plutonic rocks, unspaced (approximate) ...
 Gneissosity, strike and dip (approximate) ...
 Mylonite foliation, strike and dip (approximate) ...
 Striking lineation, azimuth and plunge ...
 Fault (approximate) ...
 Shear sense indicator ...
 Gneiss (with sample site number) ...

Geology by L.B. Aspler, J.R. Chazanell, 1996, 1997; K.B. Powis, and B.L. Cousens, 1997
 Geological compilation by L.B. Aspler, 1998
 Digital cartography by R.L. Allard, Geoscience Information Division
 Electrostatic plot produced by the Geoscience Information Division
 Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada
 Digital base map from data compiled by Geomatics Canada, modified by the Geoscience Information Division
 Copies of the topographic maps of this area may be obtained from the Canada Map Office, Natural Resources Canada, Ottawa, Canada, A1A 0G9
 Mean magnetic declination 1998, 7° 45' W, decreasing 11.6' annually

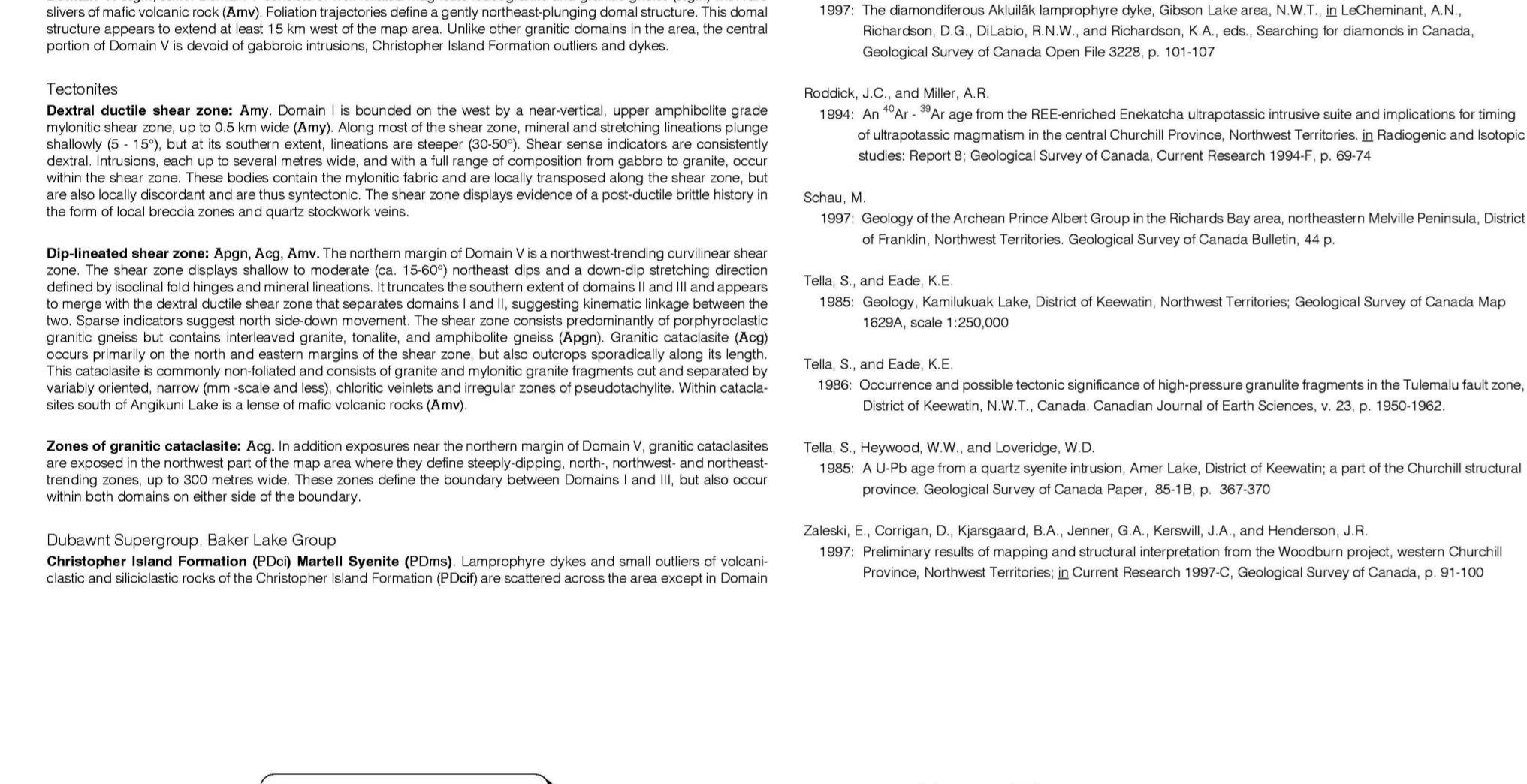


Figure 1: Simplified geology of the Hearne Province and location of map area

Table 1. Geochemistry of grab samples from gossans, ICP-MS by Aeme Analytical Laboratories Ltd., Vancouver

Element	Au	Ag	Cu	Pb	Zn	Ni	Cr	V	Mo	Fe	Mn	Co	A	Hg	W	Mg	Sb	U	
Detection Limit	0.3	0.3	1	3	1	1	1	1	0.01	2	1	2	0.01	2	0.01	2	5	0	
Unit	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	
1 97-17-24	disseminated sulphides in felsic volcanic	<2	<0.3	69	14	43	23	34	62	6	5.14	222	5	<2	<1	5	0.94	<3	<6
2 97-17-38	disseminated sulphides in tonalitic gneiss	<2	<0.3	14	<3	25	190	212	98	<1	7.14	176	52	<2	<1	3	2.65	<3	<6
3 97-22-9	sulphides in quartz veins in felsic volcanic	<2	<0.3	54	10	7	42	18	2	3.59	25	119	30	<1	7	0.02	<3	<6	
4 97-22-3	disseminated sulphides in mafic volcanic	<2	2.4	1972	31	83	403	91	102	3	15.20	355	332	<1	2	1.58	<3	<6	
5 97-32-1	disseminated sulphides in mafic volcanic	<2	<0.3	1253	16	45	185	142	39	3	11.94	286	68	140	<1	3	0.48	<3	<6
6 97-15-20	sulphide veins in mafic volcanic	<2	0.4	109	37	91	34	33	67	2	9.71	380	11	69	<1	13	0.79	<3	<6
7 97-27-27	mafic volcanic	<2	<0.3	81	9	108	59	25	34	4	5.86	361	30	<2	<1	6	0.98	<3	<6

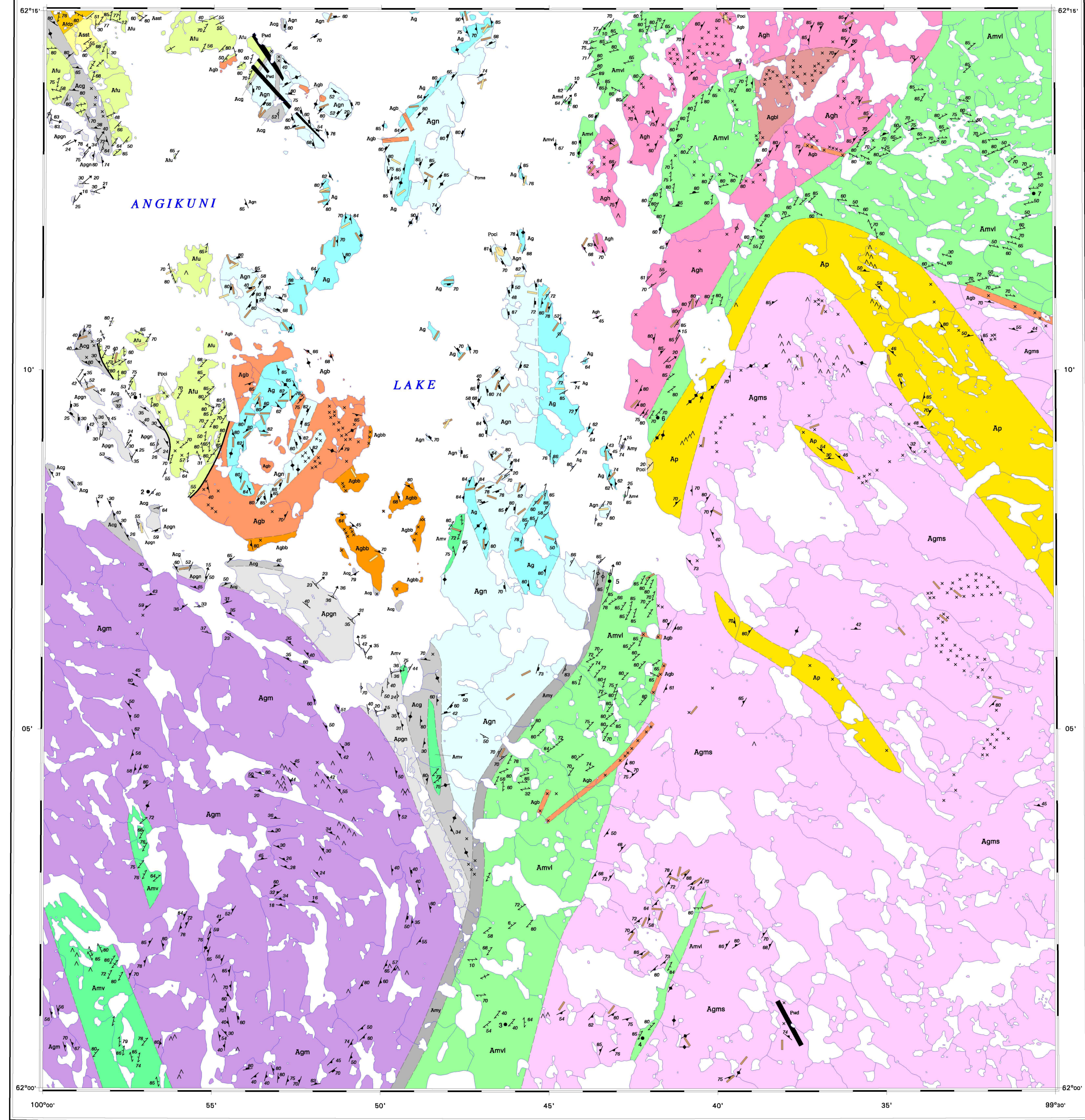


Figure 2: Archean structural domains, Angikuni Lake area

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 EGS 1998-1
 GEOLOGY
GEOLOGY OF SOUTHERN ANGIKUNI LAKE AREA
 DISTRICT OF KEEWATIN
 NORTHWEST TERRITORIES
 Scale 1:50 000 - Échelle 1/50 000

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 OTTAWA
 06/98
 EGS 1998-1

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