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REPORT ON 1999 PROSPECTING  
ON THE  
EDEN CLAIMS (P6067E, P3422F, MB862, MB863)  
AT EDEN LAKE  
LYNN LAKE AREA, MANITOBA, CANADA

NTS: NE9 - 64C

by

DANIEL V. ZIEHLKE, P. GEO.

November, 1999



REPORT ON 1998 PROSPECTING  
on the  
EDEN-9 (P3422F), EDEN 6067 (P6067E), EDEN 862 (MB862)  
and EDEN-863 (MB863) CLAIMS  
at  
EDEN LAKE, LYNN LAKE AREA, MANITOBA, CANADA

NTS: NE9 - 64C

INTRODUCTION

Location and Access:

The EDEN claims are located approximately 50 km. ESE of the mining community of Lynn Lake, Manitoba (Figures 1, 2, 3, and 4). Provincial Highway #391 passes 6 km north of the property, with access provided via boat from the Eden Lake campgrounds, on the north shore of Eden Lake (Figure 3). A winter logging road access to the east side of Eden Lake was constructed in 1998.

A camp for this work was established at the Eden Lake campgrounds, off highway #391, utilizing a 6 man trailer, plus the outdoor campground facilities.

Previous Work:

Work in 1995 and 1996 has shown that anomalous rare earth values are contained in Tag alder samples, collected over a major till covered lineament, adjacent to the only known rare earth surface showing in the Eden Lake pluton. This lineament also contains anomalous values for arsenic and gold in Tag alder samples.

Attempts in 1996 to excavate a trench through this boulder till overburden by blasting proved futile, but did indicate that drilling is the only way to effectively test the anomalous lineament.

The lineament hosted, rare earth anomaly, extends for at least 1 km to the south, beyond the area of the surface showing, as proved by additional Tag alder sampling in 1996.

A forest fire in 1998 burned much of the Eden area, revealing much of the outcrop for the first time in many years. Prospecting south of the main showing in 1998 resulted in the discovery of Andradite mineralization, rich in heavy rare earths, ~ 1 km south of the main showing. The importance of this discovery was not

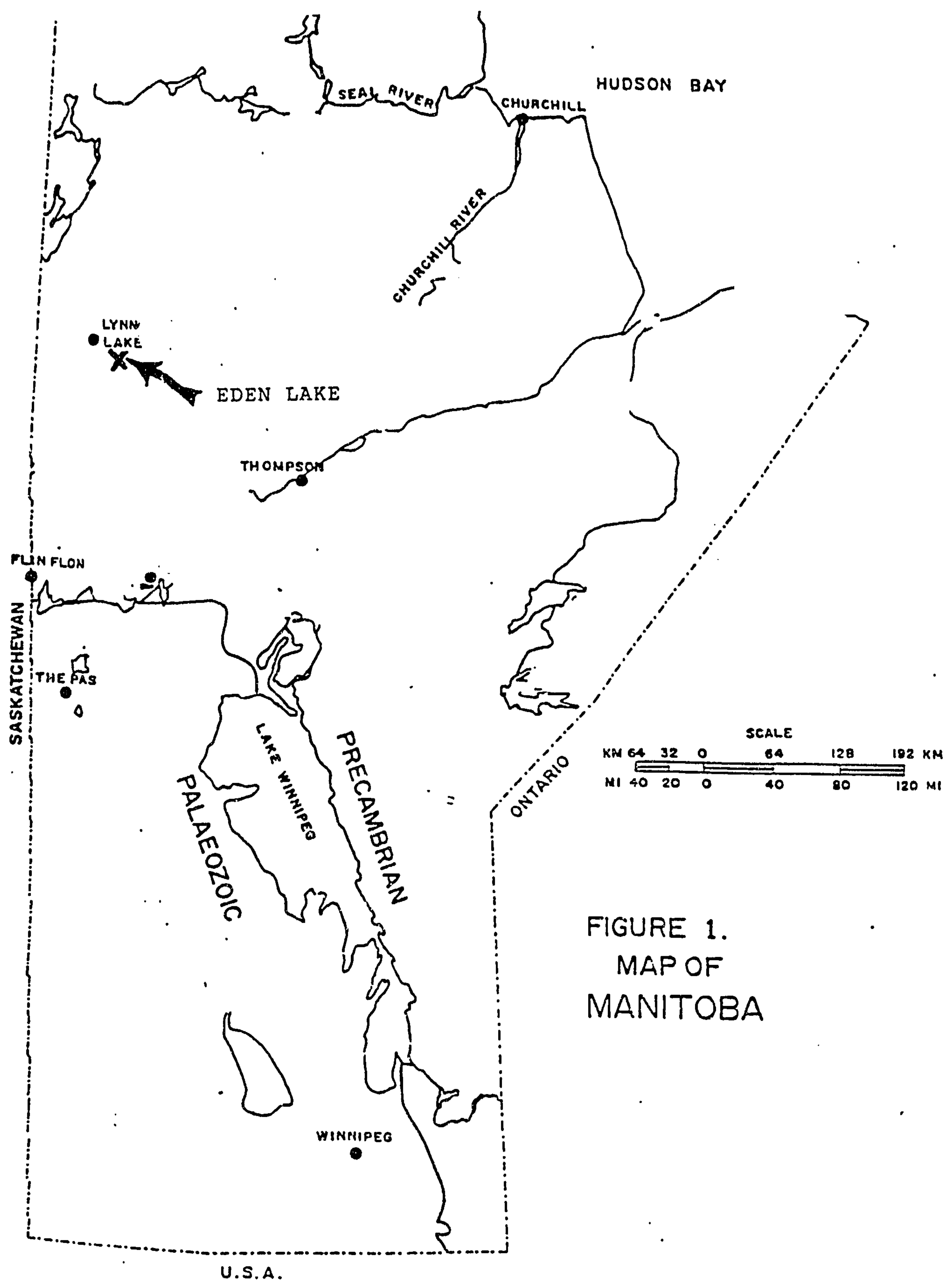


FIGURE 1.  
MAP OF  
MANITOBA



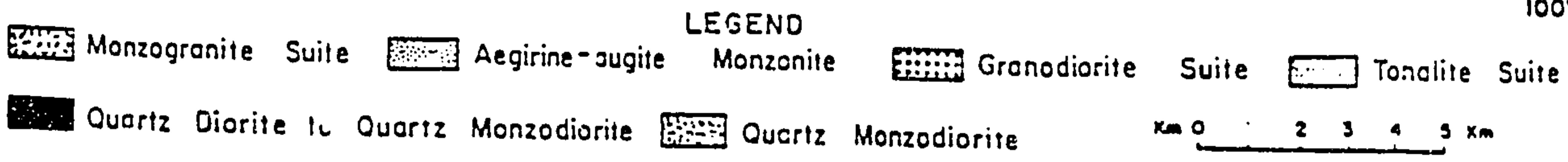
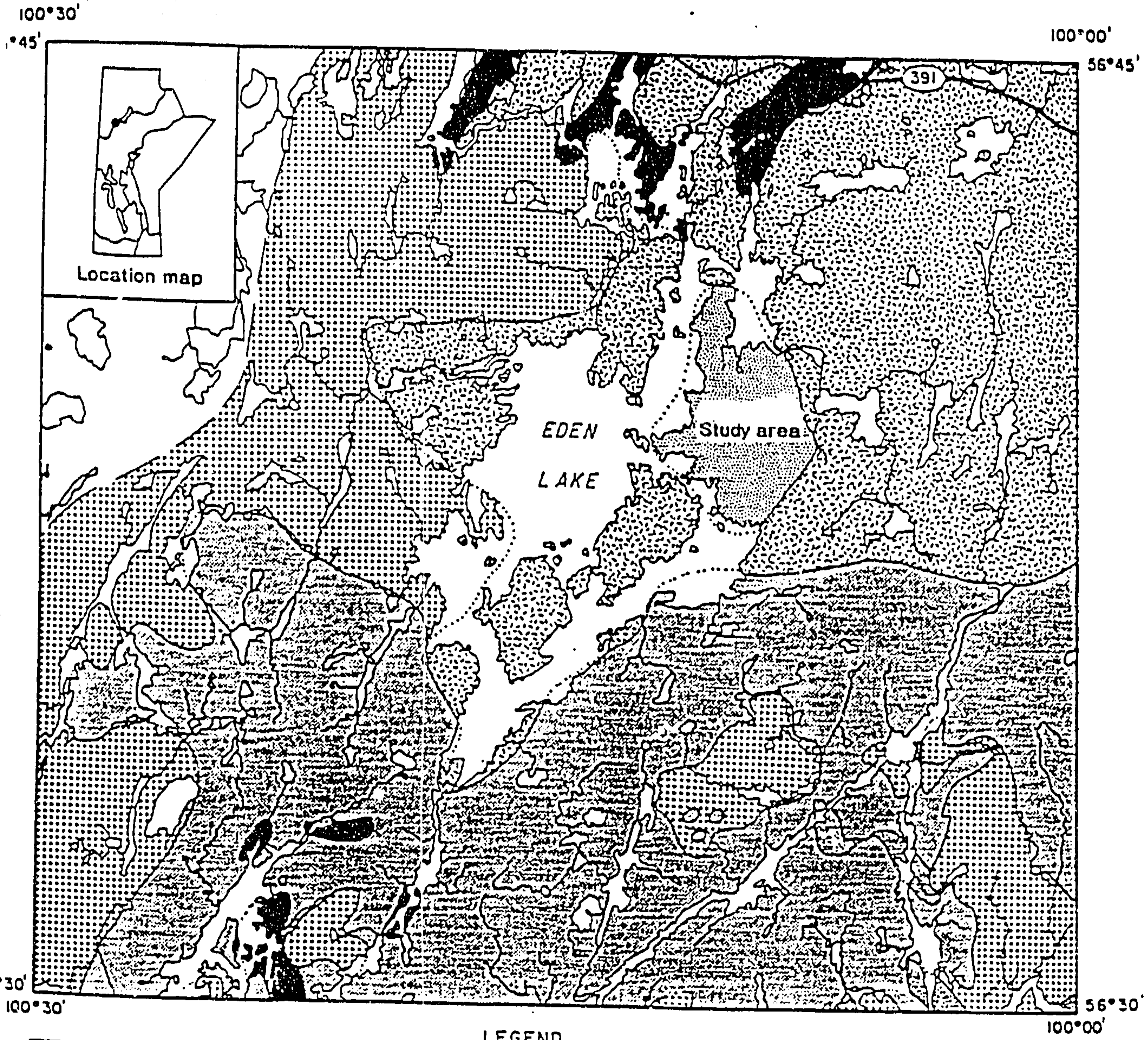
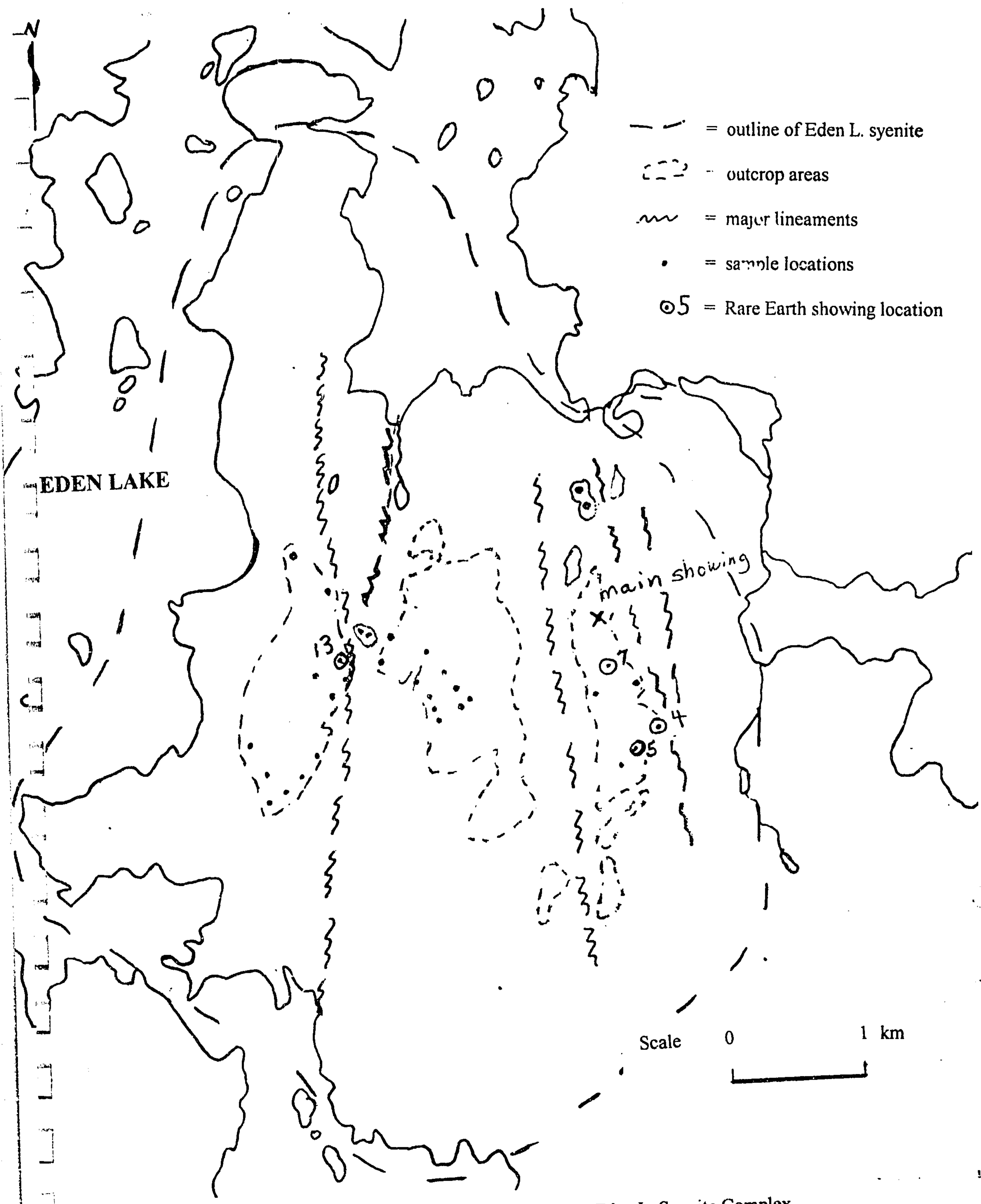


FIGURE 3 : Location map and regional geological setting for the Eden Lake survey area. Geology after Cameron (1988).



- - - = outline of Eden L. syenite
- - - = outcrop areas
- ~ ~ ~ = major lineaments
- = sample locations
- ⊙5 = Rare Earth showing location

**Figure 4.** Sample Locations (areas prospected) 1999 within Eden L. Syenite Complex.

known until the assays were received in the fall, when additional work was no longer possible.

#### PURPOSE OF 1999 PROSPECTING TRIP

The purpose of this years work was to resample the 1998 black garnet (andradite) showing to confirm the presence of heavy rare earths, and to prospect the immediate area for more similar mineralization.

In addition, detailed prospecting along the other lineaments to the west was to be conducted, to determine if any additional rare earth mineralization is present, and to see if this mineralization is spatially related to the recessive linear valleys (suspected faults) (Figure 4).

#### PROJECT PERSONNEL

The prospecting was done by myself, with assistance from Conrad Ziehlke, a part time prospector, trained by myself, who has past experience in the Eden Lake area.

A Magellan GPS 4000 unit was used to locate all sample sites. Only 12 samples have been assayed to date, although over 30 samples were taken. The assaying of additional samples may be undertaken in the future, depending on the results of planned mineralogical studies on some of the samples.

#### DIARY OF THE TRIP

Sunday, August 8

Drove to field office at Snow Lake with my truck and Conrad's car. Organized and packed equipment, plus boat and motor. Stayed overnight in Snow Lake.

Monday, August 9

Drove to Lynn Lake with both vehicles and boat. Picked up camper from storage in Lynn Lake and moved it to the camp site at Eden Lake. Set up camp at 9 pm.

Tuesday, August 10

Prospected the area from the main britholite showing to the new 1998 andradite showing, which was located and resampled. Two additional andradite showings

were located along the same lineament at locations 5 and 4 (Figure 4).  
Returned to camp at 7 pm.

Wednesday, August 11

Prospected the northern half of the large western ridge, along the west side of the most western lineament (see Figure 4). Located a new rare earth showing at the edge of the outcrop (see location 13, Figure 4). Returned to camp 6:30 pm.

Thursday, August 12

Returned to site of yesterdays discovery, and prospected area to the south, along the same outcrop. No new showings found. Rained out at 3 PM. Returned to camp at 4:30, wet.

Friday, August 13

Prospected valley and large outcrop area in central area, east across large western most lineament. Central outcrop area poorly exposed along western edge due to less intense burn and much blow down of fire killed, but not well burned trees. Very tough and slow going in this area. No new showings found, but verified multiple phase nature of pluton. Some minor showers during the day. Returned to camp at 6:20 pm.

Saturday, August 14

Broke camp in rain and moved camper trailer and boat to storage in Lynn Lake. Reviewed and separated samples in preparation for assay. Put samples on bus to lab in late afternoon. Slept in camper trailer at Lynn Lake, as too late to drive to Cranberry at night.

Sunday, August 15

Left Lynn Lake by 9:30 AM and drove to Cranberry Portage. Arrived home at 7:30 PM, after having tire trouble on poorly maintained gravel road between Leaf Rapids and Nelson House.

#### RESULTS OF THE 1999 PROSPECTING TRIP

The area prospected this trip is shown in yellow in Figure 4, along with the locations of the 34 samples taken shown as dots. The five highly anomalous



samples, EDN-99-4, -5A, -5B, -7, and -13, have the numbers shown beside their locations. Appendix 1 contains the results of the 12 samples sent to XRAL Laboratories for rare earth analysis.

This work has confirmed the presence of the heavy rare earth elements (REE's) at location 5 (Figure 4), as the mineral andradite, first discovered last summer. This occurrence has now been extended for a strike length of over 200 m @ 025 degrees azimuth strike from the original discovery.

Two new occurrences of the same mineral andradite were also found at locations 4 and 7 on Figure 4. The andradite occurs as a black, subhedral to anhedral, dodecahedron shaped mineral, .5 to 4 cm across, showing botryoidal texture in some crystals. The mineral, comprising <1 to locally 20% of the veins, occurs within irregular to elongate shaped sweat pegmatite veins and poorly defined dikes, usually striking 15 to 30 degrees azimuth. These stringers and dikes are believed to be late fluids associated with the edges of the 340 to 360 degree striking major lineaments which cross the Eden lake aegerine-augite bearing monzonite stock.

Heavy rare earths (dysprosium, holmium, erbium, ytterbium, lutetium) have now been found to occur associated with the eastern lineament for a strike length of 600 meters (Figure 4 and Appendix 1). Significant values up to 161 ppm Dy, 34.3 ppm Ho, 128 ppm Er, 145 ppm Yb, and 19.6 ppm Lu, were returned from a selected sample of andradite rich rock from location 5 (Figure 4). This is in addition to the original lighter rare earth rich mineral britholite discovery another 300 meters north (see Figure 4), which contains ore grade amounts of cerium and neodymium.

Thus, this lineament has both heavy and light rare earth occurrences over almost a kilometer of strike length along the west side of the most easterly recessive lineament. This supports the Tag alder data, taken across the drift covered lineament itself, which returned highly anomalous rare earths in two sample lines taken 1 km apart, across this lineament (see earlier prospecting reports by D.V. Ziehlke, 1995, 1996).

#### New Discovery 1999

This years work has resulted in the discovery of a new rare earth showing at location 13, Figure 4. A grab sample, containing up to 30% mixed black augite(?) and brown britholite (?) minerals, returned a highly anomalous 2880 ppm Cerium and 840 ppm neodymium (Appendix 1).

The sample came from an irregular shaped, late phase, mixed pegmatite and micropegmatite intrusion, which comprised 10 - 20% of an area 20 to 30 meters

across. This is the most volumous rare earth occurrence discovered to date in the Eden intrusion, and the first evidence of the existence of a potentially larger volume, rare earth rich phase, within the intrusion.

This showing is located along the eastern edge of a 20 meter high, N-S trending escarpment, along the western most major recessive lineament. Thus, this lineament also contains potential for rare earth deposits.

### SUMMARY AND CONCLUSIONS

The 1999 prospecting has resulted in the extension of the heavy rare earth element showing, discovered in 1998, along the eastern lineament, to nearly 1 km strike length.

Also, a new showing of REE mineralization, over a 10 to 20 m area, near the edge of the western lineament, has shown that both lineaments are potential hosts for additional, more volumous rare earth deposits.

These results in outcrop, adjacent to two of the major recessive lineaments, combined with the highly REE anomalous results from Tag alder surveys across the eastern lineament, demonstrates the high potential for rare earth deposition within these recessive lineaments.

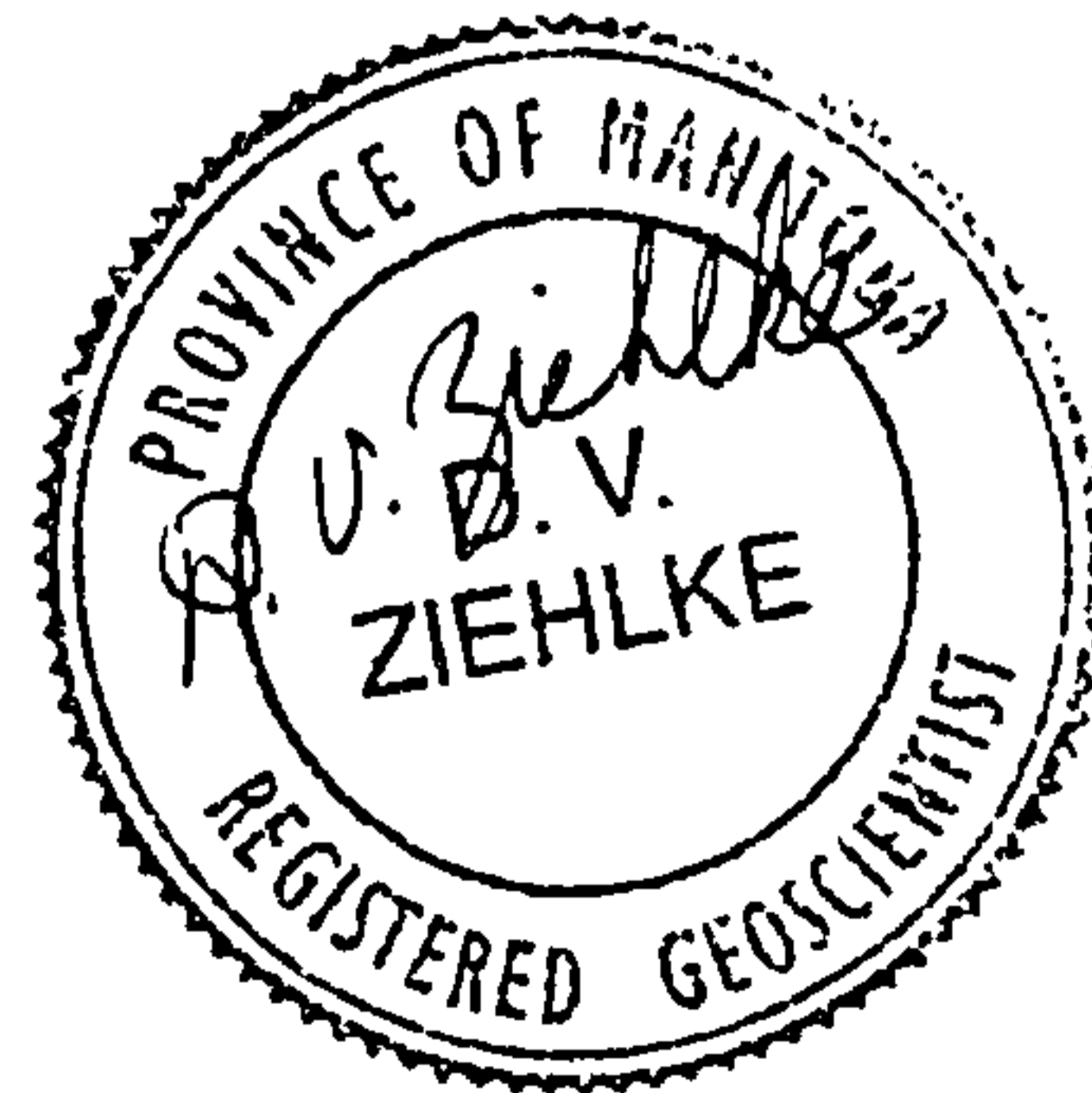
### RECOMMENDATIONS

A systematic exploration program is recommended, consisting of a detailed ground magnetometer survey, followed by drilling across any magnetic anomalies located along the recessive linear valleys.

If money cannot be raised to do this program this winter, next summer detailed mapping and prospecting should continue in the vicinity of sample 13, as when it was sampled, no detailed mapping was conducted. This mixed micropegmatitic phase may be the important clue to ore deposition in the area.

In addition, a mineralogical study on samples collected to date should be conducted, to determine the type and composition of the minerals containing the abundant rare earths.

*D. V. Ziehlke*  
Daniel V. Ziehlke, P. Geo.



APPENDIX 1



**XRAL Laboratories**  
A Division of SGS Canada Inc.

**Laboratories**  
Division of SGS Canada Inc.

Work Order: 056473

Date: 11/09/99

PARTIAL

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Date: 11/09/99

PARTIAL

Element	Method	Det. Lim.	Units	W	Pb	Ri	Y	In	Ce	Pr	Ni	Sn	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Th	U	
				ICP70	ICP70	ICP70	MS90	MS90	MS90	MS90	MS90	MS90	MS90	MS90	MS90	MS90	MS90	MS90	MS90	MS90	MS90	MS90	MS90	
				ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
13853	Edn-99-3			n.a.	n.a.	n.a.	110	57.9	163	20.4	118	36.3	10.6	33.6	3.8	23.1	3.63	10.8	1.3	8.6	0.94	46.1	6.1	
13854	Edn-99-4			n.a.	n.a.	n.a.	(876)	9.7	46.8	12.7	112	60.2	19.6	(65.9)	12.6	(98.2)	19.1	(73.0)	11.3	(33.4)	(13.8)	19.1	8.1	
13855	"			<5	<5	<5	(1240)	3.2	30.8	10.4	110	74.1	23.3	(116)	19.5	(16)	(64.3)	(78)	(19.0)	(145)	(19.6)	83.4	8.1	
13856	"			n.a.	n.a.	n.a.	(728)	6.2	40.8	11.9	110	59.1	15.7	72.7	10.5	(80.1)	15.6	(61.3)	9.6	(84.2)	12.8	37.4	9.1	
13857	"			n.a.	n.a.	n.a.	(620)	2.8	21.6	6.7	67.1	40.7	11.4	56.1	8.9	(72.0)	14.8	(38.5)	9.3	(78.5)	11.9	22.2	7.1	
13858	Edn-99-12			n.a.	n.a.	n.a.	97	62.9	152	20.6	140	30.6	9.06	31.4	3.7	22.6	3.57	9.9	1.1	6.6	0.76	18.8	2.8	
13859	Edn-99-13			n.a.	n.a.	n.a.	200	(880)	(2830)	(197)	(840)	(134)	31.1	(112)	9.2	48.6	6.83	19.2	1.9	12.0	1.51	84.3	17.7	
13860	"			<10	<10	<5	89	181	388	42.3	197	39.9	10.5	36.9	3.8	21.4	3.29	9.0	1.9	5.9	0.71	15.6	4.3	
13861	"			n.a.	n.a.	n.a.	33	104	288	33.7	164	28.8	6.80	21.5	1.8	9.1	1.19	3.2	0.3	2.4	0.35	14.4	6.0	
13862	"			n.a.	n.a.	n.a.	138	10.6	27.8	4.0	22.7	9.3	2.54	13.1	2.2	19.2	4.32	17.5	2.9	25.3	4.13	17.8	4.9	
13863	"			<10	31	<5	108	31.6	77.9	10.0	61.9	24.1	7.83	26.9	3.5	22.3	3.53	10.4	1.2	7.5	0.88	5.4	3.1	
13804	"			n.a.	n.a.	n.a.	244	53.8	251	44.4	186	54.7	16.8	59.2	7.7	52.1	8.72	25.3	3.0	18.5	1.98	12.7	6.0	
40013853	"			n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

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