

# GM 66173

PRELIMINARY REPORT ON THE KIPAWA PROPERTY

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Énergie et Ressources  
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Québec 

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**PRELIMINARY REPORT ON THE KIPAWA PROPERTY**

KIPAWA PROPERTY  
NTS Map Sheet 31L/10 & 31L/15  
Québec, Canada

Prepared for:  
LAKESIDE MINERALS CORP.

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**GM66173**

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December 30<sup>th</sup>, 2011

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## TABLE OF CONTENT

SUMMARY.....	4
1.0 INTRODUCTION .....	5
2.0 PROPERTY DESCRIPTION & LOCATION.....	5
3.0 ACCESSIBILITY, CLIMATE AND PHYSIOGRAPHY .....	10
4.0 HISTORY.....	10
5.0 GEOLOGICAL SETTING .....	14
5.1 Regional Geology.....	14
5.2 Local Geology.....	14
6.0 DEPOSIT TYPES .....	17
7.0 MINERALIZATION.....	19
8.0 REGIONAL SEDIMENT SURVEY.....	22
9.0 CURRENT WORK PROGRAM .....	25
10.0 CONCLUSIONS & RECOMMENDATIONS.....	27
11.0 REFERENCES.....	28
12.0 CERTIFICATE OF QUALIFICATION .....	32
APPENDIX I .....	<i>Geophysical Airborne Survey (GPR Geoph)</i> 33

## List of Figures

Figure 1: Kipawa property (red block) general location.....	5
Figure 2: Kipawa property claims (with SRTM topography background).....	7
Figure 3: Simplified regional geology of the Kipawa region (property claims in red). Map modified after Breemen & Currie (2004). .....	15
Figure 4: Kipawa property geology (Source: MRNF SIGEOM database).....	16
Figure 5: Area showings and mineralization relative to the Kipawa property. (Background: 1 <sup>st</sup> derivative of regional MAG over SRTM topography).....	21
Figure 6: Location of MRN stream sediment samples and result highlights in vicinity of the Kipawa property claims. Note samples with anomalous Y, Au, Ce, Eu, Sm, Th and U (Table 3) on the Kipawa property and just north of the property. Also shown are regional mineral showings as in Figure 5. Background to Kipawa claims from LAKESIDE (GPR) July 2011 geophysical survey (MAG 1 <sup>st</sup> vertical derivative).....	24
Figure 7: Flight path and first vertical derivative of residual magnetic field over the Kipawa property: data from 2011 <i>Geophysics GPR International Inc.</i> helicopter-borne survey (see Appendix I).....	26

## List of Tables

Table 1: Kipawa property claims. ....	8
Table 2: Kipawa property, previous work.....	13
Table 3: Selected analytical results and ranking of stream sediments samples (MRN survey) located within the Kipawa property. ....	23

## SUMMARY

During the months of April through to November of 2011, an airborne geophysical survey and data compilation was performed by Lakeside Minerals Corp. on the Kipawa property claims located in the Témiscamingue region of the province of Québec, Canada.

The property is located approximately 38 km east of the town of Témiscaming in the Témiscamingue Régional County Municipality, some 170 km south of Rouyn-Noranda. The property lies within National Topographic System (NTS) map sheet 31L/10 and 31L/15 and consists of 45 map designated claims (CDC) represented in one irregularly shaped block covering a total of 26.48 km<sup>2</sup> (2647.58 ha) spanning over the Booth and Villedieu townships. The property can be easily accessed by all weather gravel roads and 4x4 trails.

The Kipawa region lies approximately 35 km southeast of the system of steep reverse faults marking the Grenville Front. Early mapping of the region depicted a granitoid gneissic matrix with pods of metagabbro and amphibolite. Locally, the property is host to the Mattawa Quartzite, a unit of quartzite, feldspathic quartzite, quartz arenite and paragneiss. The Mattawa Quartzite is intruded by the Red Pine Chute Orthogneiss, a strongly foliated, migmatitic, pink, biotite granite gneiss.

In July of 2011, *Geophysics GPR International Inc.* carried out a helicopter-borne gradiomagnetic, spectrometric and VLF-EM geophysical survey on behalf of Lakeside Minerals Corp. The survey covers the entire Kipawa claim block for a total of 292.5 line-km. In addition, data compilation which consisted in a review of historical exploration work on the Kipawa claims was carried out in order to evaluate the mineral potential of the property.

A stream sediment geochemical sampling program was carried out by the MRN (Ministère des Ressources Naturelles) in the late 1960's. The property is host to the 6<sup>th</sup> highest (6 out 2202 samples) Y value, 10<sup>th</sup> highest Au value along with several anomalous values in Ce, Eu, Sm, Th and U. This clearly suggests that additional work is necessary to determine the potential for the Kipawa property to host REE, Au or U mineralization.

In view of these considerations, property claims should be maintained and warrants additional work. Such work may include:

- Ongoing compilation and integration of geological, geochemical and geophysical reports.
- Field prospecting and follow up of the identified geochemical/geophysical anomalies from historical/current surveys.
- Property scale geological mapping and geochemical soil survey to define anomalous zones and alterations.
- Detailed analysis of acquired information in order to re-evaluate the mineral potential.

## 1.0 INTRODUCTION

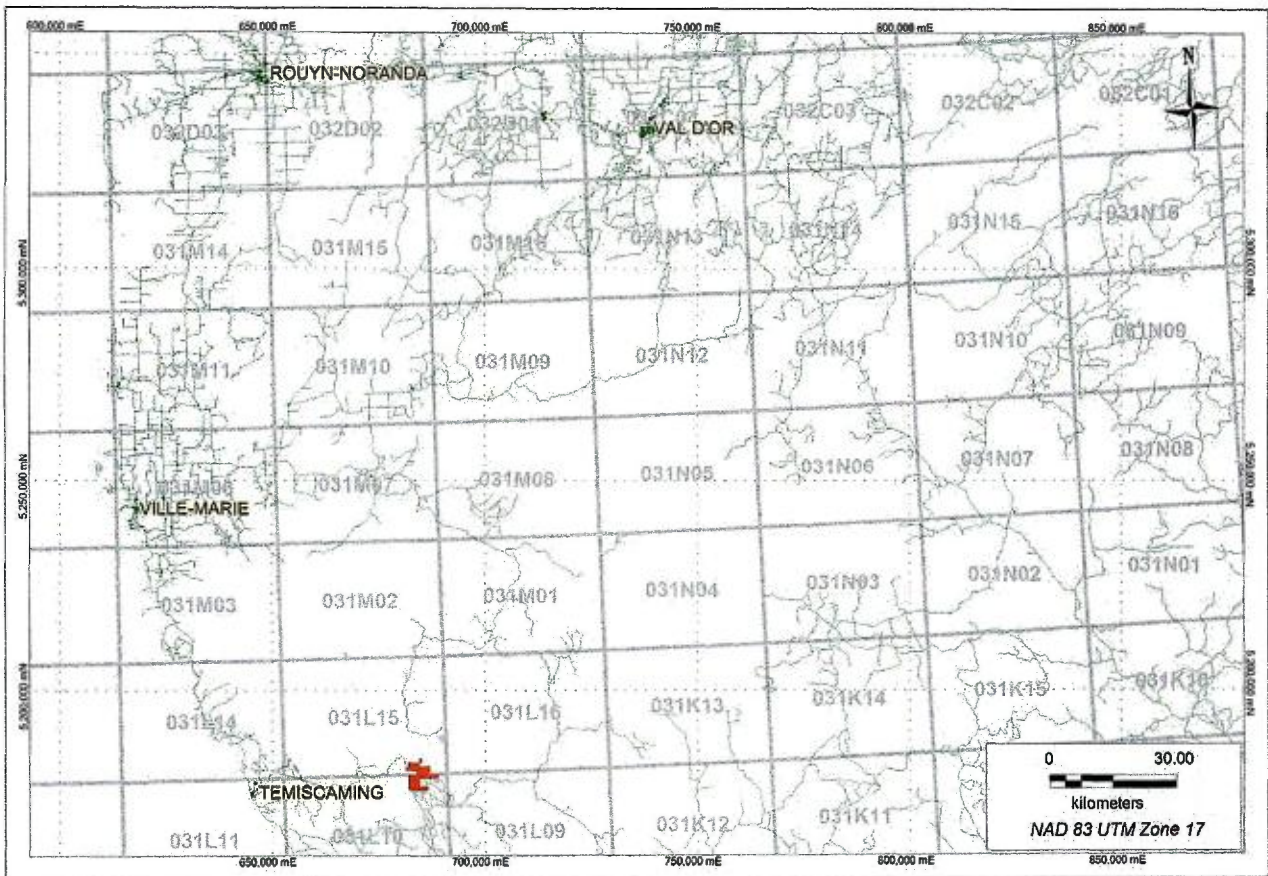
During the months of April through to November of 2011, Lakeside Minerals Corp. (LAKESIDE) carried out a helicopter-borne gradiometric, spectrometric and VLF-EM geophysical survey along with data compilation on the Kipawa property claims located in the Témiscamingue region of the province of Québec, Canada.

This report and its attachments present the results from the conducted geophysical survey and data compilation.

LAKESIDE compiled historical geological and exploration work conducted on the property and presented in this report between April and November of 2011. The helicopter-borne geophysical survey was performed by *Geophysics GPR International Inc.* on July 7<sup>th</sup> 2011.

## 2.0 PROPERTY DESCRIPTION & LOCATION

The property is located approximately 38 km east of the town of Témiscaming in the Témiscamingue Regional County Municipality, some 170 km south of Rouyn-Noranda. The property lies within National Topographic System (NTS) map sheet 31L/10 and 31L/15 (Figure 1).



**Figure 1:** Kipawa property (red block) general location.

The property is centered at approximately 684900 mE & 5180300 mN (NAD83 UTM Zone 17) or in latitude and longitude at 46.75° N, -78.57° W and consists of 45 map designated claims (CDC) represented in one irregularly shaped block covering a total of 26.48 km<sup>2</sup> (2647.58 ha) spanning over the Booth and Villedieu townships (Figure 2).

LAKESIDE entered into an option agreement with *Mundiregina Resources Canada Inc.* to acquire all rights, title and interest in the forty-five (45) claims of the Kipawa property (Table 1).

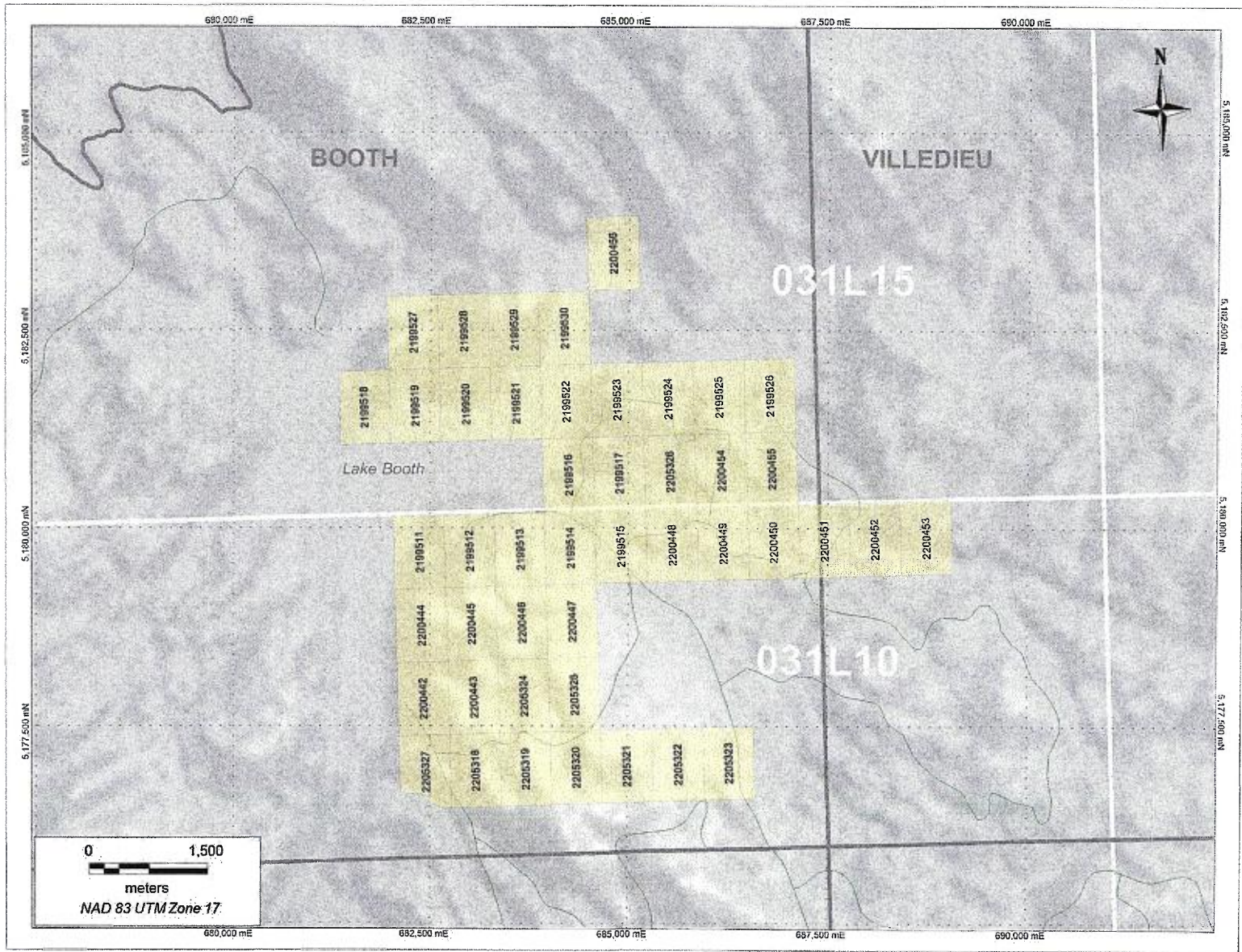


Figure 2: Kipawa property claims (with SRTM topography background).

**Table 1: Kipawa property claims.**

Title #	Area/Block	NTS Sheet	Township	Range	Lot	Part	Area (ha)	Type	Registry Date	Expiry Date	Holder (Name, MRNF ID number and Pourcentage)
2199511	KIPAWA	31L10	BOOTH	30	47	0	58.99	CDC	14/01/2010	13/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2199512	KIPAWA	31L10	BOOTH	30	48	0	58.99	CDC	14/01/2010	13/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2199513	KIPAWA	31L10	BOOTH	30	49	0	58.99	CDC	14/01/2010	13/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2199514	KIPAWA	31L10	BOOTH	30	50	0	58.99	CDC	14/01/2010	13/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2199515	KIPAWA	31L10	BOOTH	30	51	0	58.99	CDC	14/01/2010	13/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2199516	KIPAWA	31L15	BOOTH	1	50	0	58.99	CDC	14/01/2010	13/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2199517	KIPAWA	31L15	BOOTH	1	51	0	58.99	CDC	14/01/2010	13/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2199518	KIPAWA	31L15	BOOTH	2	46	0	58.97	CDC	14/01/2010	13/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2199519	KIPAWA	31L15	BOOTH	2	47	0	58.97	CDC	14/01/2010	13/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2199520	KIPAWA	31L15	BOOTH	2	48	0	58.98	CDC	14/01/2010	13/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2199521	KIPAWA	31L15	BOOTH	2	49	0	58.98	CDC	14/01/2010	13/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2199522	KIPAWA	31L15	BOOTH	2	50	0	58.98	CDC	14/01/2010	13/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2199523	KIPAWA	31L15	BOOTH	2	51	0	58.98	CDC	14/01/2010	13/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2199524	KIPAWA	31L15	BOOTH	2	52	0	58.98	CDC	14/01/2010	13/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2199525	KIPAWA	31L15	BOOTH	2	53	0	58.98	CDC	14/01/2010	13/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2199526	KIPAWA	31L15	BOOTH	2	54	0	58.98	CDC	14/01/2010	13/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2199527	KIPAWA	31L15	BOOTH	3	47	0	58.97	CDC	14/01/2010	13/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2199528	KIPAWA	31L15	BOOTH	3	48	0	58.97	CDC	14/01/2010	13/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2199529	KIPAWA	31L15	BOOTH	3	49	0	58.97	CDC	14/01/2010	13/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2199530	KIPAWA	31L15	BOOTH	3	50	0	58.97	CDC	14/01/2010	13/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2200442	KIPAWA	31L10	BOOTH	28	47	0	59.01	CDC	15/01/2010	14/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2200443	KIPAWA	31L10	BOOTH	28	48	0	59.01	CDC	15/01/2010	14/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2200444	KIPAWA	31L10	BOOTH	29	47	0	59	CDC	15/01/2010	14/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2200445	KIPAWA	31L10	BOOTH	29	48	0	59	CDC	15/01/2010	14/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2200446	KIPAWA	31L10	BOOTH	29	49	0	59	CDC	15/01/2010	14/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2200447	KIPAWA	31L10	BOOTH	29	50	0	59	CDC	15/01/2010	14/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2200448	KIPAWA	31L10	BOOTH	30	52	0	58.99	CDC	15/01/2010	14/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2200449	KIPAWA	31L10	BOOTH	30	53	0	59	CDC	15/01/2010	14/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2200450	KIPAWA	31L10	BOOTH	30	54	0	59	CDC	15/01/2010	14/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2200451	KIPAWA	31L10	VILLEDIEU/BOOTH	30	55	0	59	CDC	15/01/2010	14/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2200452	KIPAWA	31L10	VILLEDIEU	30	56	0	59	CDC	15/01/2010	14/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2200453	KIPAWA	31L10	VILLEDIEU	30	57	0	59	CDC	15/01/2010	14/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2200454	KIPAWA	31L15	BOOTH	1	53	0	58.99	CDC	15/01/2010	14/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2200455	KIPAWA	31L15	BOOTH	1	54	0	58.99	CDC	15/01/2010	14/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2200456	KIPAWA	31L15	BOOTH	4	51	0	58.96	CDC	15/01/2010	14/01/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2205318	KIPAWA	31L10	BOOTH	27	48	0	59.02	CDC	15/02/2010	14/02/2012	Mundiregina Resources Canada Inc. (91120) 100 %

Title #	Area/Block	NTS Sheet	Township	Range	Lot	Part	Area (ha)	Type	Registry Date	Expiry Date	Holder (Name; MRNF ID number and Pourcentage)
2205319	KIPAWA	31L10	BOOTH	27	49	0	59.02	CDC	15/02/2010	14/02/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2205320	KIPAWA	31L10	BOOTH	27	50	0	59.02	CDC	15/02/2010	14/02/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2205321	KIPAWA	31L10	BOOTH	27	51	0	59.02	CDC	15/02/2010	14/02/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2205322	KIPAWA	31L10	BOOTH	27	52	0	59.02	CDC	15/02/2010	14/02/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2205323	KIPAWA	31L10	BOOTH	27	53	0	59.02	CDC	15/02/2010	14/02/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2205324	KIPAWA	31L10	BOOTH	28	49	0	59.01	CDC	15/02/2010	14/02/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2205325	KIPAWA	31L10	BOOTH	28	50	0	59.01	CDC	15/02/2010	14/02/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2205327	KIPAWA	31L10	BOOTH	27	47	1	51.89	CDC	15/02/2010	14/02/2012	Mundiregina Resources Canada Inc. (91120) 100 %
2205326	KIPAWA	31L15	BOOTH	1	52	0	58.99	CDC	15/02/2010	14/02/2012	Mundiregina Resources Canada Inc. (91120) 100 %

### 3.0 ACCESSIBILITY, CLIMATE AND PHYSIOGRAPHY

The property can be easily accessed by all weather gravel roads and 4x4 trails, which are accessible from the Chemin Commonwealth approximately 40 km east of the town of Témiscaming.

The climate is characterised by cold winters and mild summers. Temperatures can range from 5°C to 35°C during the summer months and can reach -35°C, rarely rising above 0°C during the winter months. Lakes are typically frozen and suitable for drilling from January to March.

The topography of the property is composed of small hills and valleys: altitude ranges from 270 m to 405 m. The Kipawa property borders a small lake, Lake Booth, and is traversed by small streams.

Except for a few protruding hill tops, the region is partially covered by glacial deposits, with a thickness ranging from one metre to a few metres thick.

### 4.0 HISTORY

Historical exploration work conducted in the surrounding area as well as on the Kipawa property began in the late 1950's and included different geological, geophysical and geochemical surveys to define the area's mineral potential. A complete list of assessment reports is presented in Table 2 and a brief summary of historical exploration work in the vicinity of the Kipawa claim block is presented below. This section is based on public domain information available through the MRNF (Ministère des Ressources Naturelles et de la Faune) website (<http://www.mrn.gouv.qc.ca/>).

1958 THOMPSON, A C (GM 16377)

- SUPPLEMENTARY GEOLOGICAL REPORT ON UPPER OTTAWA RIVER AREA
- Geological survey

1959 MRN (RP 391)

- PRELIMINARY REPORT ON MCLACHLIN - BOOTH AREA, TEMISCAMINGUE ELECTORAL - DISTRICT
- Geological survey, rock sampling

1969 METRON EXPL LTD, STURDY MINES LTD (GM 25493)

- REPORT ON AIRBORNE GAMMA RAY SPECTROMETER SURVEY IN THE VILLE MARIE AREA (CANADIAN AERO MINERAL SVYS LTD)
- Airborne radiometric survey

1969 MRN (DP 037)

- GEOCHIMIE DES SEDIMENTS DE RUISSEAU: REGION DU LAC KIPAWA (COMTE DE TEMISCAMINGUE)
- Geochemical stream sediments survey

1970 MRN (DP 241)

- GEOCHIMIE DES SEDIMENTS DE RUISSEAU: REGION DU LAC KIPAWA, COMTE DE PONTIAC-TEMISCAMINGUE
- Geochemical stream sediments survey

1971 STURDY MINES LTD IMPERIAL OIL ENTERPRISES LTD (GM 27552)

- KIPAWA PROJECT, REPORT NO 2
- Ground radiometric survey, geochemical stream/soil sediments survey

1972 MRN (DP 106)

- MINERALIZATION IN THE SOUTH PART OF TEMISCAMINGUE COUNTY AND THE WEST PART OF PONTIAC COUNTY
- Geological survey

1974 MRN (GM 51690)

- L'URANIUM AU QUEBEC
- Geological survey, compilation

1978 MRN (DPV 579)

- LE DISTRICT RADIOACTIF DE KIPAWA (COMTE DE TEMISCAMINGUE)
- Geological survey, rock sampling

1981 MRN (CL 031L)

- CARTE DE LOCALISATION DES TRAVAUX GEOSCIENTIFIQUES 031L
- Compilation

1981 MRN (DPV 744)

- CATALOGUE DES GITES MINERAUX DU QUEBEC; REGION DE L'ABITIBI
- Compilation

1983 MRN (DP-83-01)

- GEOCHIMIE DES SEDIMENTS DE RUISSEAUX DE LA REGION DU LAC KIPAWA
- Geochemical stream sediments survey

1989 MRN (DV 89-02)

- ATLAS DES TOURBIERES DU QUEBEC MERIDIONAL
- Bog reserve evaluation

1990 MER (FG 031L - CL)

- CARTE DE LOCALISATION DES GITES MINERAUX 031L
- Compilation

1994 MRN (MB 94-63)

- CONTRIBUTION DE LA GEOCHIMIE ET DE LA GEOPHYSIQUE A LA RECHERCHE DE DIAMANTS LE LONG DU RIFT DU LAC TEMISCAMINGUE
- Airborne magnetic survey, geochemical stream sediments survey

1995 MRN (PRO 95-04)

- EXPLORATION GEOCHIMIQUE AU TEMISCAMINGUE
- Geochemical stream sediments survey

1996 DITEM EXPLORATIONS INC (GM 54271)

- LANDSAT GEOLINEAMENT ASSESSMENT REPORT, DITEM-MARUM OPTION PART OF R GROUPS
- Remote sensing

2004 CONSOREM (GM 64092)

- FRONT DE GRENVILLE: APPROCHE GEOPHYSIQUE
- Compilation

2006 MINES AURIZON LTEE (GM 63592)

- GEOLOGIE GLACIAIRE ET APPLICATION DU TRACAGE D'INDICATEURS, PROJET LACS SAIRS
- Geology of surface/glacial deposits
- 

2006 MINES AURIZON LTEE (GM 63593)

- ANALYSES DE CONCENTRES DE MINERAUX LOURDS
- Geochemical survey

2006 MINES AURIZON LTEE (GM 63590)

- DATA ACQUISITION REPORT, TEMISCAMING PROJECT
- Airborne magnetic, spectrometric & EM survey
- 

2006 MRNF (DP-2006-01)

- DONNEES NUMERIQUES DES LEVES GEOPHYSIQUES AEROPORTES VERSES AUX TRAVAUX STATUTAIRES, REGION DU GRENVILLE ET DES BASSES TERRES DU SAINT-LAURENT (A L'OUEST DE LA LONGITUDE 68°)
- Compilation

2009 CONSOREM (EP 2009-03)

- EVALUATION DU POTENTIEL EN URANIUM ET EN CU-AU-U ET CARTOGRAPHIE PREVISIONNELLE D'INTRUSIONS MAFIQUES-ULTRAMAFIQUES DANS LE GRENVILLE
- Compilation

2010 MRNF (CG SIGEOM31L)

- CARTE(S) GÉOLOGIQUE(S) DU SIGEOM - feuillet 31l
- Geological survey

2010 MUSEE MINERALOGIQUE DE MALARTIC (GT 2010-02)

- CARTE GEOTOURISTIQUE DE L'ABITIBI-TEMISCAMINGUE
- Compilation

**Table 2: Kipawa property, previous work**

YEAR	REPORT #	LAKESIDE BLOCK	REPORT TITLE	COMPANY	NATURE OF WORK
1958	GM 16377	KIPAWA	SUPPLEMENTARY GEOLOGICAL REPORT ON UPPER OTTAWA RIVER AREA		LEVE GEOLOGIQUE
1959	RP 391	KIPAWA	RAPPORT PRELIMINAIRE SUR LA REGION DE MCLACHLIN - BOOTH, DISTRICT ELECTORAL DE TEMISCAMINGUE	MRN	ANALYSE DE ROCHE, LEVE GEOLOGIQUE
1959	RP 391(A)	KIPAWA	PRELIMINARY REPORT ON MCLACHLIN - BOOTH AREA, TEMISCAMINGUE ELECTORAL DISTRICT	MRN	ANALYSE DE ROCHE, LEVE GEOLOGIQUE
1969	GM 25493	KIPAWA	REPORT ON AIRBORNE GAMMA RAY SPECTROMETER SURVEY IN THE VILLE MARIE AREA	METRON EXPL LTD, STURDY MINES LTD	LEVE RADIOMETRIQUE AERIEN
1969	DP 037	KIPAWA	GEOCHIMIE DES SEDIMENTS DE RUISSEAU. REGION DU LAC KIPAWA (COMTE DE TEMISCAMINGUE)	MRN	SEDIMENTS DE RUISSEAUX, GEOCH
1970	DP 241	KIPAWA	GEOCHIMIE DES SEDIMENTS DE RUISSEAU: REGION DU LAC KIPAWA, COMTE DE PONTIAC-TEMISCAMINGUE	MRN	SEDIMENTS DE RUISSEAUX, GEOCH
1971	GM 27552	KIPAWA	KIPAWA PROJECT, REPORT NO 2	IMPERIAL OIL ENTERPRISES LTD (STURDY MINES LTD)	LEVE RADIOMETRIQUE AU SOL, SEDIMENTS DE RUISSEAUX, GEOCH, SOL, GEOCHIMIE
1972	DP 106	KIPAWA	MINERALISATIONS DANS LA PARTIE SUD DU COMTE DE TEMISCAMINGUE ET LA PARTIE OUEST DU COMTE DE PONTIAC	MRN	LEVE GEOLOGIQUE
1972	DP 106(A)	KIPAWA	MINERALIZATION IN THE SOUTH PART OF TEMISCAMINGUE COUNTY AND THE WEST PART OF PONTIAC COUNTY	MRN	LEVE GEOLOGIQUE
1974	GM 51690	KIPAWA	L'URANIUM AU QUEBEC	MRN	COMPILATION, LEVE GEOLOGIQUE
1978	DPV 579	KIPAWA	LE DISTRICT RADIOACTIF DE KIPAWA (COMTE DE TEMISCAMINGUE)	MRN	ANALYSE DE ROCHE, LEVE GEOLOGIQUE
1981	CL 031L	KIPAWA	CARTE DE LOCALISATION DES TRAVAUX GEOSCIENTIFIQUES 031L	MRN	COMPILATION
1981	DPV 744	KIPAWA	CATALOGUE DES GITES MINERAUX DU QUEBEC, REGION DE L'ABITIBI	MRN	COMPILATION
1983	DP-83-01	KIPAWA	GEOCHIMIE DES SEDIMENTS DE RUISSEAUX DE LA REGION DU LAC KIPAWA	MRN	SEDIMENTS DE RUISSEAUX, GEOCH
1989	DV 89-02	KIPAWA	ATLAS DES TOURBIERES DU QUEBEC MERIDIONAL	MRN	EVALUATION DES RESERVES, TOURBIERE
1990	FG 031L - CL	KIPAWA	CARTE DE LOCALISATION DES GITES MINERAUX 031L	M E R	COMPILATION
1994	MB 94-63	KIPAWA	CONTRIBUTION DE LA GEOCHIMIE ET DE LA GEOPHYSIQUE A LA RECHERCHE DE DIAMANTS LE LONG DU RIFT DU LAC TEMISCAMINGUE	MRN	LEVE MAGNETIQUE AERIEN, SEDIMENTS DE RUISSEAUX, GEOCH
1995	PRO 95-04	KIPAWA	EXPLORATION GEOCHIMIQUE AU TEMISCAMINGUE	MRN	SEDIMENTS DE RUISSEAUX, GEOCH
1996	GM 54271	KIPAWA	LANDSAT GEOLINEAMENT ASSESSMENT REPORT, DITEM-MARUM OPTION PART OF R GROUPS	DITEM EXPLORATIONS INC	TELEDETECTION
2004	GM 64092	KIPAWA	FRONT DE GRENVILLE: APPROCHE GEOPHYSIQUE	CONSOREM	COMPILATION
2006	GM 63592	KIPAWA	GEOLOGIE GLACIAIRE ET APPLICATION DU TRACAGE D'INDICATEURS, PROJET LACS SAIRS	MINES AURIZON LTEE	GEOLOGIE DES DEPOTS MEUBLES, TRAVAUX DE SURFACE
2006	GM 63593	KIPAWA	ANALYSES DE CONCENTRES DE MINERAUX LOURDS	MINES AURIZON LTEE	MINERAUX LOURDS, GEOCHIMIE, TILL, GEOCHIMIE
2006	GM 63590	KIPAWA	DATA ACQUISITION REPORT, TEMISCAMING PROJECT	MINES AURIZON LTEE	LEVE MAGNETIQUE AERIEN, LEVE SPECTROMETRIQUE AERIEN, LEVE E M AERIEN
2006	DP-2006-01	KIPAWA	DONNEES NUMERIQUES DES LEVES GEOPHYSIQUES AEROPORTES VERSES AUX TRAVAUX STATUTAIRES, REGION DU GRENVILLE ET DES BASSES TERRES DU SAINT-LAURENT (A L'OUEST DE LA LONGITUDE 68°)	MRNF	COMPILATION
2009	EP 2009-03	KIPAWA	EVALUATION DU POTENTIEL EN URANIUM ET EN CU-AU-U ET CARTOGRAPHIE PREVISIONNELLE D'INTRUSIONS MAFIQUES-ULTRAMAFIQUES DANS LE GRENVILLE	CONSOREM	COMPILATION
2010	CG SIGEOM31L	KIPAWA	CARTE(S) GEOLOGIQUE(S) DU SIGEOM - feuille 311	MRNF	LEVE GEOLOGIQUE
2010	GT 2010-02	KIPAWA	CARTE GEOTOURISTIQUE DE L'ABITIBI-TEMISCAMINGUE	MUSEE MINERALOGIQUE DE MALARTIC	COMPILATION

## 5.0 GEOLOGICAL SETTING

Parts of the following sections, *Regional Geology & Local Geology*, were taken in their integral form from O. Van Breemen and K.L. Currie (2004).

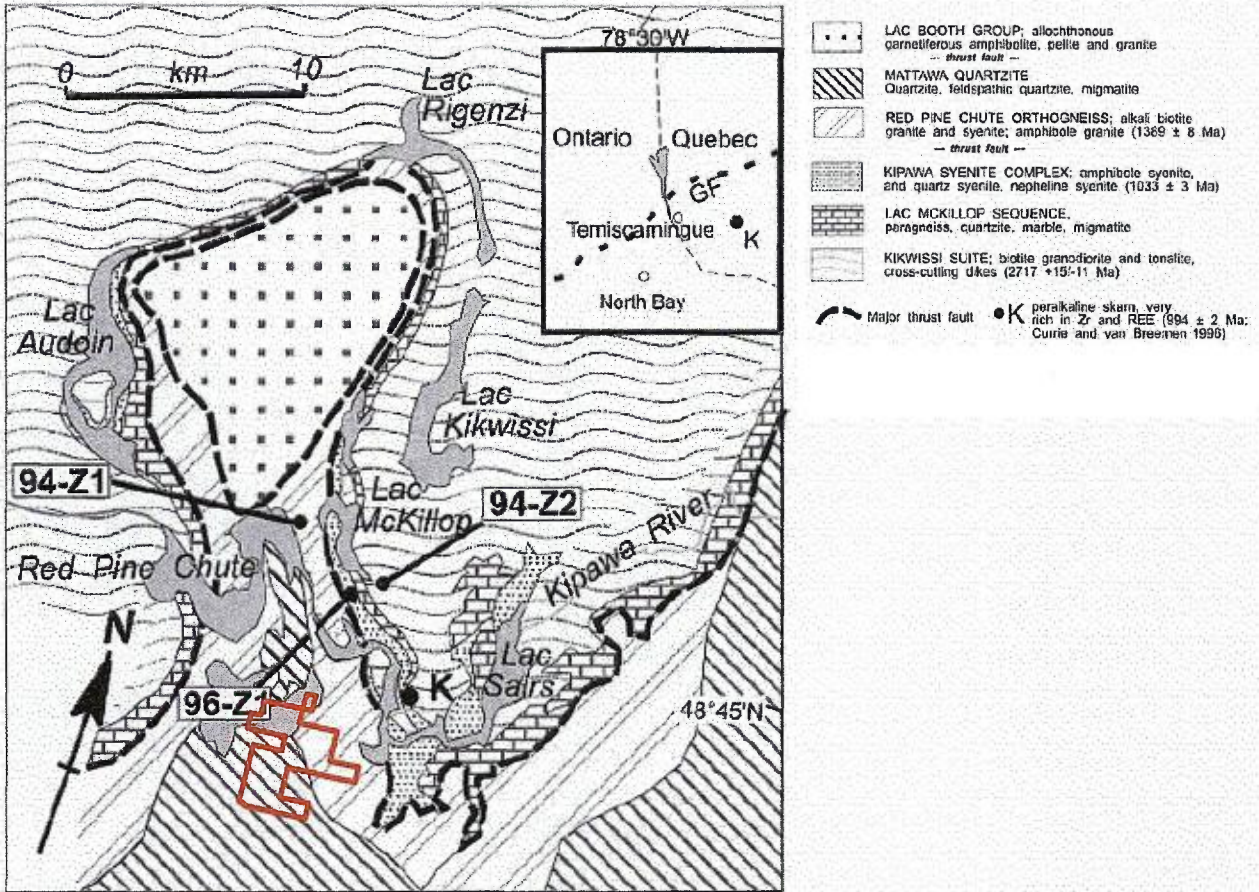
### 5.1 Regional Geology

The Kipawa region lies approximately 35 km southeast of the system of steep reverse faults marking the Grenville Front. Early mapping of this region (Lyll, 1958; Rive, 1973; Tremblay-Clark & Kish, 1978) depicted a generally granitoid gneissic matrix with pods of metagabbro and amphibolite. Within this matrix, a belt of metasedimentary rocks (Kipawa group; Rive, 1973) lay in kilometre-scale open folds. The Kipawa Syenite Complex, a narrow belt (almost 100 km long but nowhere more than 3 km wide) within the metasedimentary rocks, consists mainly of amphibole syenite, but several lenses, up to a few hundred metres long, contain nepheline, and a lens of peralkaline skarn contains eudialyte, a mineral generally considered diagnostic of agpaitic syenites, as well as numerous other rare minerals (Currie & van Breemen, 1996). Remapping of the Kipawa Syenite Complex and its host (Currie & Gittins, 1993; Currie & van Breemen, 1996; Currie, 1998) showed that an imbricate stack of thrust sheets is present in which at least three major sheets can be distinguished. The lowest sheet comprises the granitoid Kikwissi suite, the Lac McKillop sequence of metasedimentary rocks intruded by peraluminous granite, and the Kipawa Syenite Complex. The middle sheet consists of the Mattawa Quartzite, the Red Pine Chute Orthogneiss, which intrudes the quartzite, and minor tonalitic bodies of uncertain affinities. The upper sheet comprises mainly garnet amphibolite (Lac Booth group). Boudins of gabbro and eclogite occur in the deformation zone separating the middle and upper sheets. Distinctive mafic dykes cut the Kikwissi suite, the Lac McKillop sequence, the Mattawa Quartzite, and the Red Pine Chute Orthogneiss. (Figure 3)

### 5.2 Local Geology

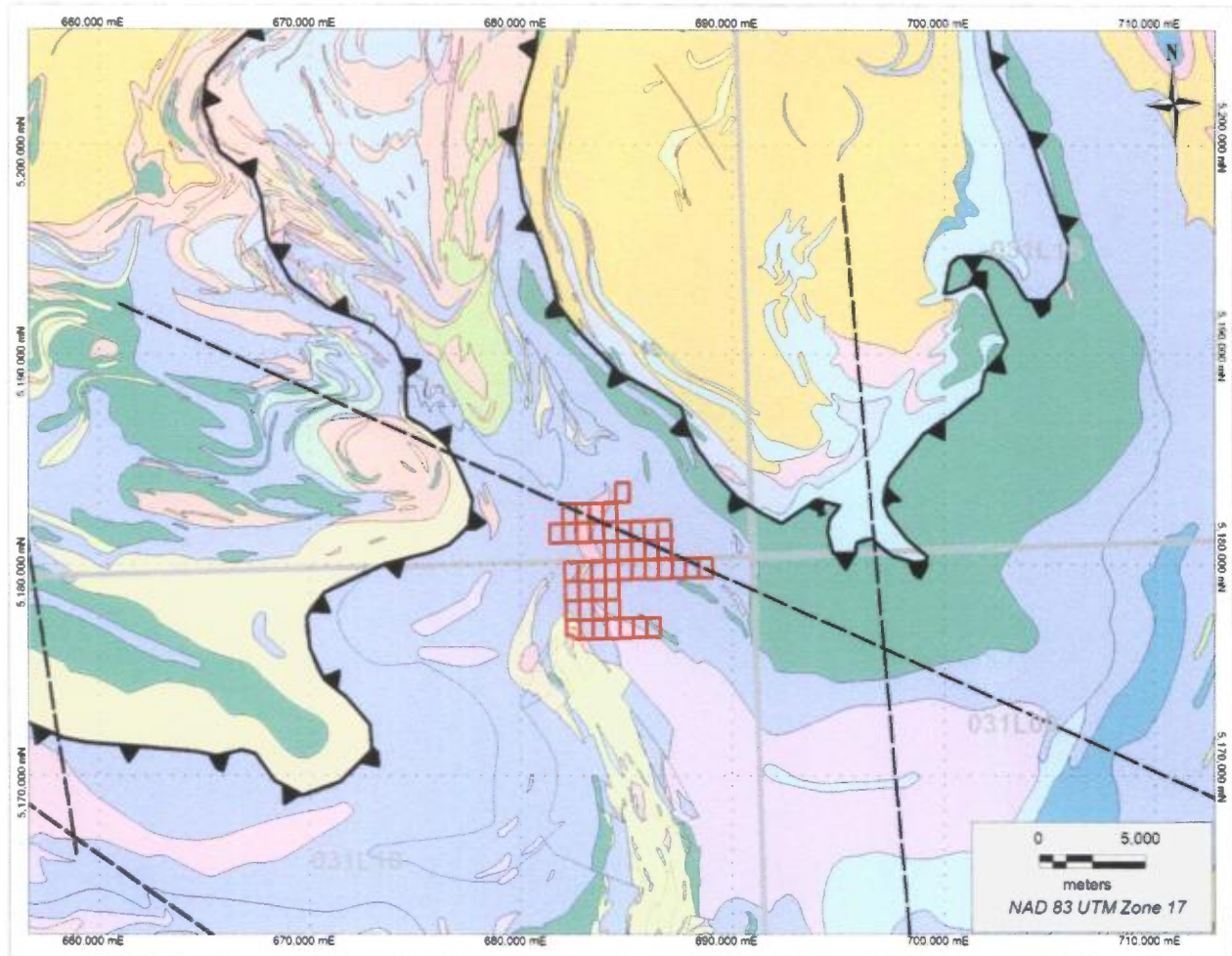
Locally, the property is host to the Mattawa Quartzite, a unit of quartzite, feldspathic quartzite, quartz arenite and paragneiss. These strata contain relict sedimentary structures including cross-bedding, heavy mineral lags, and graded bedding, now expressed by variation in proportions of biotite and muscovite.

The Mattawa Quartzite is intruded by the Red Pine Chute Orthogneiss, a strongly foliated, migmatitic, pink, biotite granite gneiss characterized by distinctive centimetre-scale clots of magnetite surrounded by hematite. The matrix of the gneiss comprises a granoblastic quartz-perthite matrix with disseminated small flakes and diffuse schlieren of biotite and sparse, minute, subhedral crystals of riebeckitic amphibole. The matrix exhibits a very strong, regular foliation, approaching "straight gneiss," and a strong lineation produced by quartz ribbons a few millimetres thick and up to 30 cm long. All phases of the Red Pine Chute Orthogneiss contain large magnetite pseudomorphs after biotite, typically surrounded by hematite alteration.



**Figure 3:** Simplified regional geology of the Kipawa region (property claims in red). Map modified after Breemen & Currie (2004).

The contact between the Mattawa Quartzite and the Red Pine Chute Orthogneiss is obscured by a zone some tens of metres thick in which abundant muscovite-bearing granite forms metre-scale sheets, crosscutting dykes and irregular masses in the metasedimentary rocks. Metasedimentary rocks in this zone commonly contain sillimanite. Krogh (1989) showed that virtually all detrital zircons from the Mattawa Quartzite have U-Pb ages of about 1685 Ma, and the unit must therefore have been deposited after this time.



#### Lithology

- Alt gneiss QFP et gneiss à BO, gneiss, amphibolite
- Alt. de gneiss QFP et gneiss à BO et amphibolite
- Alt. de gneiss QFP et de gneiss à BO et amphibolite
- Alternance de gneiss quartzofeldspathique
- Gabbro métamorphisé
- Gneiss
- Gneiss à biotite
- Gneiss à biotite et à grain fin
- Gneiss à biotite et hornblende
- Gneiss à biotite, grenat et amphibolite
- Gneiss à biotite, hornblende et grenat
- Gneiss à biotite, muscovite et grenat
- Gneiss à BO, gneiss à migmatite, amphibolite à GR
- Gneiss à graphite
- Gneiss à grenat
- Gneiss à hornblende
- Gneiss à hornblende et amphibolite
- Gneiss à hornblende et biotite
- Gneiss à hornblende, gneiss QFP et gneiss à biotit
- Gneiss à hornblende, gneiss QFP, gneiss à biotite
- Gneiss granitique et orthogneiss tonalitique
- Gneiss gris à biotite
- Gneiss leucocrate, gneiss quartzofeldspathique
- Gneiss quartzofeldspathique

- Gneiss quartzofeldspathique à biotite
- Gneiss quartzofeldspathique à muscovite
- Gneiss quartzofeldspathique avec ou sans muscovite
- Gneiss quartzofeldspathique gris à biotite
- Gneiss quartzofeldspathique rose à muscovite
- Granite et pegmatite
- Granite rose
- Monzonite
- Paragneiss
- Paragneiss à biotite et hornblende
- Paragneiss à biotite, hornblende et grenat
- Paragneiss à feldspath et paragneiss à FP et SR
- Paragneiss à grenat
- Paragneiss à hornblende, biotite et amphibolite
- Paragneiss grenatifère
- Paragneiss indifférencié
- Quartzite
- Quartzite et amphibolite à pyroxène et grenat
- Quartzite et schiste
- Quartzite, marbre et schiste
- Quartzite, schiste et paragneiss
- Roche calco-silicatée, gneiss et quartzite
- Syénite

#### Regional Faults

- Regional faults
- ▲ Major thrust fault

#### Kipawa Property

- Claims

**Figure 4:** Kipawa property geology (Source: MRNF SIGEOM database).

## 6.0 DEPOSIT TYPES

The region surrounding and generally north of the Kipawa property is host to several showings of various deposit types located within a wide variety of geological contexts. The following presents a brief overview of a selection of known regional deposit types.

### ***Intrusion (Alkaline) Related Mineralization***

The following was taken or modified from Richard and Carrier (2008).

Commodities associated with alkaline intrusions include several rare elements. Zirconium (Zr), niobium (Nb), beryllium (Be), uranium (U), thorium (Th), tantalum (Ta), yttrium (Y), gallium (Ga) and rare earth elements (REE) can be found in economic amounts in this type of deposit. In most cases, more than one of these commodities is found in a single deposit.

Mineralization associated with these deposits can be divided into two distinct processes: magmatism and metasomatism (Richardson and Birkett, 1996). In most cases, both processes are present, with metasomatism processes overprinting an original magmatic process without any discernable discontinuity (Richardson and Birkett, 1996). Thor Lake deposit in the Northwest Territories of Northern Canada, like the Kipawa syenite occurrences, presents evidence for both these mineralization processes (Richardson and Birkett, 1996). Large deposits are known in Greenland (Ilimaussaq, Kvanefjeld and Motzfeldt), Russia (Khibiny and Lovozero complexes), and Australia (Brockman). The sizes of known deposits vary greatly from less than a million tons to several hundred million. Niobium, Ta, Be, Y and REE usually occur in amounts less than 1% and Zr between 1% and 5%. In most of the deposits, Nb and Ta are found within columbite-tantalite and pyrochlore minerals. At the Lovozero complex, Nb and REE are found in loparite. Zirconium is usually found in eudialyte, which may contain REEs as well. A large list of rare element minerals can also occur in alkaline-hosted deposits.

These types of deposits are the result of magmatic differentiation in intrusive complexes. Fractional crystallization concentrates rare elements in the magma. In some deposits, such as Thor Lake, mineralization forms during the circulation of postmagmatic fluids rich in F and CO<sub>2</sub> (Richardson and Birkett, 1996).

The distribution of alteration zones and textural zones associated with these deposits are relatively identical. A medium- to coarse-grained microcline-rich zone at depth gives way to a fine-grained albite-rich intermediate zone, which is then overlain by greisenizing pegmatites. Albitization may replace the greisenizing in hyper-alkaline systems (Richardson and Birkett, 1996). Economic mineralization at the Thor Lake deposit is hosted in albite-rich zones (Trueman et al, 1988).

### ***Quartz-Pebble Conglomerate/Sandstone Related Mineralization***

The uranium and gold occurrences of the Kipawa area may correspond to a metamorphosed equivalent of quartz-pebble conglomerate/sandstone related mineralization geological settings.

Detrital uranium occurs in early Archean and Palaeoproterozoic quartz-pebble conglomerates that unconformably overlie granitic and metamorphic basement. Fluvial transport of detrital uraninite was possible at the time because of the prevailing anoxic atmosphere. Uranium in these deposits is recovered as a by-product of gold mining, where the grade may be as low as 0.01% U<sub>3</sub>O<sub>8</sub>. In deposits mined exclusively for uranium, average grades range as high as 0.15% U<sub>3</sub>O<sub>8</sub>. Major examples are the Elliot Lake deposits and the Witwatersrand gold-uranium deposits in South Africa.

Sandstone uranium deposits occur in medium to coarse-grained sandstones deposited in a continental fluvial or marginal marine sedimentary environment. Impermeable shale/mudstone units are interbedded in the sedimentary sequence and often occur immediately above and below the mineralised sandstone. Uranium is precipitated under reducing conditions caused by a variety of reducing agents within the sandstone including: carbonaceous material, sulphides and hydrocarbons. Orebodies of this type are commonly low to medium grade (0.05 - 0.4% U<sub>3</sub>O<sub>8</sub>) and individual orebodies are small to medium in size (ranging up to a maximum of 50 000 t U<sub>3</sub>O<sub>8</sub>). The main primary uranium minerals are uraninite and coffinite.

### ***Iron Oxide Cu-REE-U Mineralization***

The following was taken or modified from Richard and Carrier (2008).

Iron oxide copper-gold (IOCG) deposits encompass a wide spectrum of sulphide-deficient low-Ti magnetite and/or hematite orebodies of hydrothermal origin where breccias, veins, disseminations, and massive lenses with polymetallic enrichments (Cu, Au, Ag, U, REE, Bi, Co, Nb, P) are genetically associated with A- to I-type magmatism, alkaline-carbonatite stocks, and crustal-scale fault zones and splays (Corriveau, 2007).

The deposits are characterized by more than 20% iron oxides. Their lithological hosts and ages are non-diagnostic whereas their alteration zones are distinctive, with sodic-calcic or potassic regional alteration superimposed by focused potassic and iron oxide alteration (Corriveau, 2007). The deposits occur at shallow- to mid-crustal levels in anorogenic to orogenic, extensional to compressional continental settings such as intracratonic and intraarc rifts, continental magmatic arcs and back-arc basins, and collisional orogens. Currently, known IOCG deposit districts occur in Precambrian shields worldwide, as well as in circum-Pacific regions (e.g. Porter, 2000; Gandhi, 2004; Williams et al., 2005).

IOCG deposits can have enormous geological resources with significant reserves of base, precious and strategic metals, as well as nuclear energy. They are major sources of Cu, Au, U, REE, F and vermiculite; significant sources of Ag, Nb, P, Bi and Co; and sources of various by-products including PGE, Ni, Se, Te and Zr. They also contain a number of associated elements, notably As, B, Ba, Cl, Co, Mo, Mn, W, (Pb, Zn). Resources of IOCG deposits for individual commodities can be as high as some of the best volcanogenic massive sulphide (VMS) and porphyry Cu deposits (Corriveau, 2007). Although gold grades are low in most of the large tonnage IOCG deposits, total Au resources may be very large (Corriveau, 2007).

The Kwyjibo deposit in the Grenville Province in Quebec has been recently identified as an IOCG deposit. At Kwyjibo, the highest concentrations of REE, Y, U and Th are in the Josette and Fluorine zones where the main REE-bearing minerals are allanite and apatite (Gauthier et al, 2004). Other REE and Y-bearing minerals are andradite, bastnaesite, britholite, kainosite, monazite, perovskite, pyrochlore, thorite, uraninite and xenotime (Gauthier et al, 2004).

## 7.0 MINERALIZATION

The area surrounding the Kipawa property is host to five (5) mineralized showings within a 10 km radius of the current property claims (Figure 5). The following are brief descriptions of these showings.

### Lac Desquerac (U-Ag-Th)

*Located 3.1 km northwest of the Kipawa property:*

Mineralization consists in pyrite, uraniferous and thoriferous minerals hosted within an arkosic (paragneiss) rock. Best results have returned 0.105 % U<sub>3</sub>O<sub>8</sub> and 18.5 g/t Ag over 5.5 m (DDH) (GM 26599). Radiometric anomalies also coincide with mineralization.

### Zone de la Riv. Kipawa (REE-U-Nb-Y)

*Located 6.7 km northeast of the Kipawa property:*

Mineralization is found in narrow (1-2 m) syenite dykes forming a narrow radioactive band within paragneiss and quartzite associated with the peralkaline Kipawa intrusive complex, and consists of pyrochlore and betafite. Host rock is a biotite syenite with apatite, sphene, zircon and radioactive minerals (GM 43492). Drill hole NV-8 returned the following: 0.17 % Nb & 0.22 % Y over 1.2 m., 1120 ppm Ce & 2060 ppm La over 0.7 m., 0.25 % Nb over 1.6 m., 1880 ppm Nb over 2.2 m. and 0.19 % U over 0.3 m. (GM 34637).

### Zones PB & PS (Zr-Y)

*Located 6.3 km northeast of the Kipawa property:*

The PS zone is located on the north shore of the Kipawa river and is represented by a field of radioactive boulders, whereas the PB zone is hosted in leuco to melanocratic syenite, calco-silicate, peralkaline granite and gneiss. Mineralization consists mostly of britholite, best concentrations of the PB zone are associated with calc-silicate rocks from the peralkaline Kipawa intrusive complex. Drilling highlights: DDH 90-KBZ-4: 0.12 % Y<sub>2</sub>O<sub>3</sub> & 0.78 % ZrO<sub>2</sub> over 18.0 m (including 0.14 % Y<sub>2</sub>O<sub>3</sub> & 0.83 % ZrO<sub>2</sub> over 7.6 m), DDH 90-KBZ-5: 0.11 % Y<sub>2</sub>O<sub>3</sub> & 1.14 % over 7.1 m (GM 50480).

### Lac Sheffield-2 (REE-Y-Zr) (Matamec's Zeus Property: Kipawa Deposit)

*Located 5.8 km northeast of the Kipawa property:*

Mineralization is found at the structural base of the Kipawa peralkaline complex and associated with syenitic gneiss and calc-silicate rocks concordant with regional foliation. Primary accessory minerals of the mineralized zone are: zircon, fluorite, apatite, thorite and yttrium minerals such as eudyalite, mosandrite and britholite. Mineral resource estimation from *SGS Canada Inc.*, conducted in September of 2010 is presented below:

Scenario 1: TREO Resources with ZrO <sub>2</sub> by-product						
Cut-off grade %	Classification	Tonnes	TREO* %	Y <sub>2</sub> O <sub>3</sub> %	ZrO <sub>2</sub> %	(H+Y)**/TREO* %
TREO > 0.50	Indicated	2,510,000	0.63	0.14	0.88	32
	Inferred	4,730,000	0.66	0.15	0.97	33
Y <sub>2</sub> O <sub>3</sub> > 0.10	Indicated	3,350,000	0.58	0.13	0.89	33
	Inferred	6,480,000	0.60	0.14	0.99	34

Scenario 2 : ZrO <sub>2</sub> resources with TREO by-product							
Cut-off grade %	Classification	Geologic zones	Tonnes	TREO* %	Y <sub>2</sub> O <sub>3</sub> %	ZrO <sub>2</sub> %	(H+Y)**/ TREO* %
ZrO <sub>2</sub> > 0,50	Indicated	TREO enriched	6,560,000	0.46	0.10	0.90	32
	Indicated	ZrO <sub>2</sub> zones	14,460,000	0.12	0.02	1.02	28
	Indicated	Total	21,020,000	0.23	0.05	0.99	32
	Inferred	TREO enriched	10,310,000	0.51	0.12	0.99	34
	Inferred	ZrO <sub>2</sub> zones	7,730,000	0.12	0.03	1.03	36
	Inferred	Total	18,040,000	0.34	0.08	1.01	34

\*: TREO contains all rare earth oxides and Y<sub>2</sub>O<sub>3</sub>

\*\*: H+Y: Heavy rare earth oxides (HREO) and Y<sub>2</sub>O<sub>3</sub>

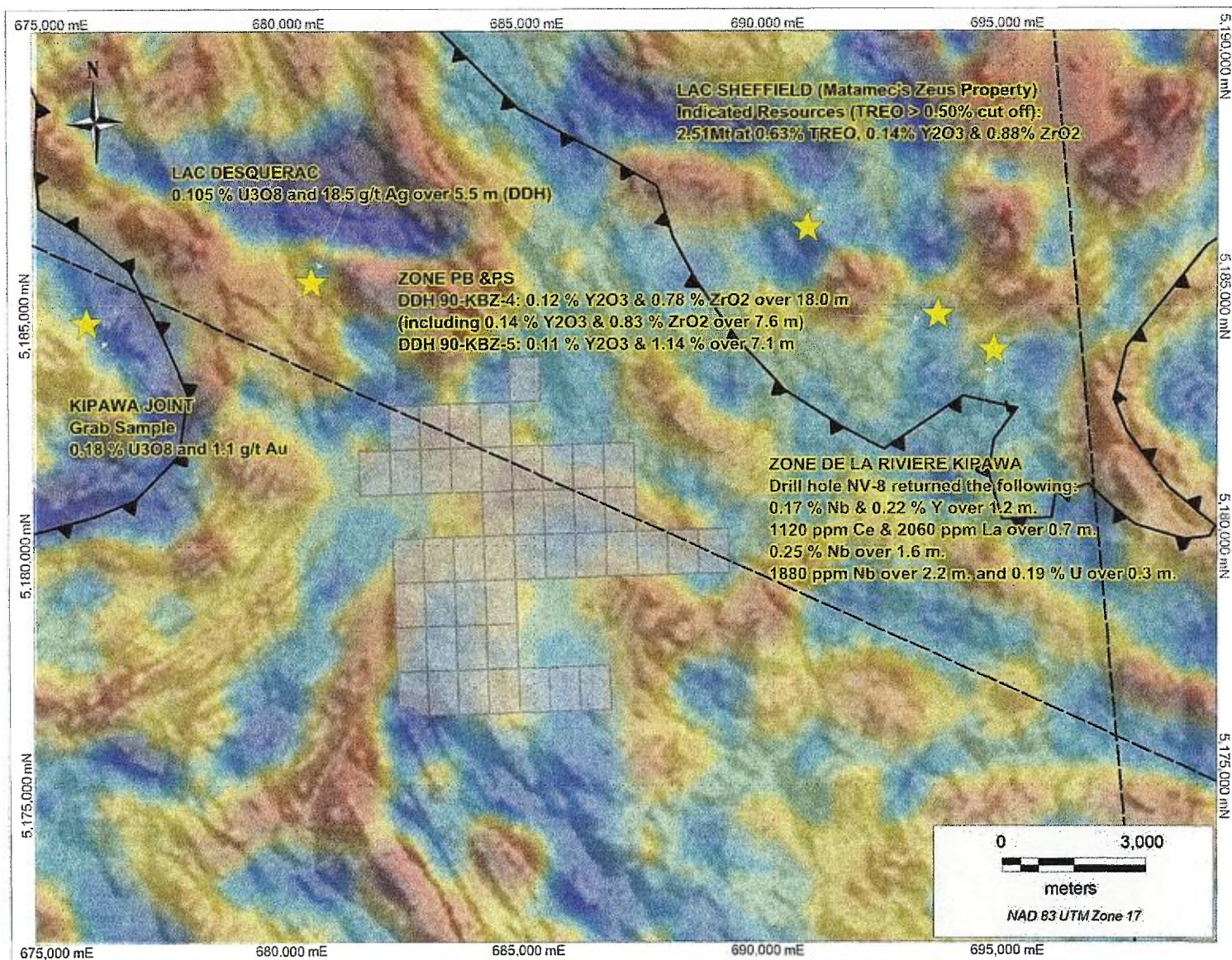
Source: Camus & Laferrère (2010) : NI 43-101 Technical Report, SGS Canada Inc.

Kipawa Joint (U-Au-Ag-Th)

Located 6.4 km northwest of the Kipawa property:

The mineralized showing is located on the south shore of Lake Grindstone and hosted within a quartzite. Mineralization consists of uranium oxides and gold, a grab sample returned 0.18 % U<sub>3</sub>O<sub>8</sub> and 1.1 g/t Au (e-sigeom).

**Note:** Most of the above are historical results obtained from the MRNF SIGEOM database.



**Figure 5:** Area showings and mineralization relative to the Kipawa property. (Background: 1<sup>st</sup> derivative of regional MAG over SRTM topography)

## 8.0 REGIONAL SEDIMENT SURVEY

Within the Kipawa property, stream sediment samples, derived from governmental regional surveys, display anomalous values in yttrium (Y), gold (Au), REE (Ce, Eu, Sm), thorium (Th), and uranium (U).

Between 1967 and 1971 the MRN (Ministère des Ressources Naturelles) carried out a large scale geochemical stream sediment sampling program that covered the region surrounding and including Kipawa property. The survey covered an area of roughly 4,180 km<sup>2</sup> and a total of 2,202 samples were collected and analyzed for a broad spectrum of elements.

Of the 2,202 samples collected, 27 samples are located within the current Kipawa property claims (Figure 6). Selected analytical results and rankings of these 27 stream sediments samples are presented in Table 3. Although a comprehensive analysis of the results of the entire stream sediment survey is beyond the scope of this compilation study, the results of the 27 stream sediment samples on the Kipawa property show several anomalous values with high rankings for the following elements:

- **Y**
  - four (4) samples above 50 ppm Y, including 113 ppm and 76 ppm Y;
  - ranking 6, 16, 25 and 27 of 2,202 samples
- **Au**
  - one (1) sample with 25 ppb Au;
  - ranking 10 of 2,202 samples
- **REE**
  - **Ce**
    - two (2) samples with values of 197 ppm and 204 ppm Ce;
    - ranking 27 and 28, respectively, of 2,202 samples
  - **Eu**
    - up to 5.2 ppm Eu; ranking 39 of 2,202 samples
  - **Sm**
    - up to 34 ppm Sm; ranking 23 of 2,202 samples
- **Th**
  - one (1) sample with 26 ppm Th;
  - ranking 16 of 2,202 samples
- **U**
  - up to 12.4 ppm U;
  - ranking 42 of 2,202 samples

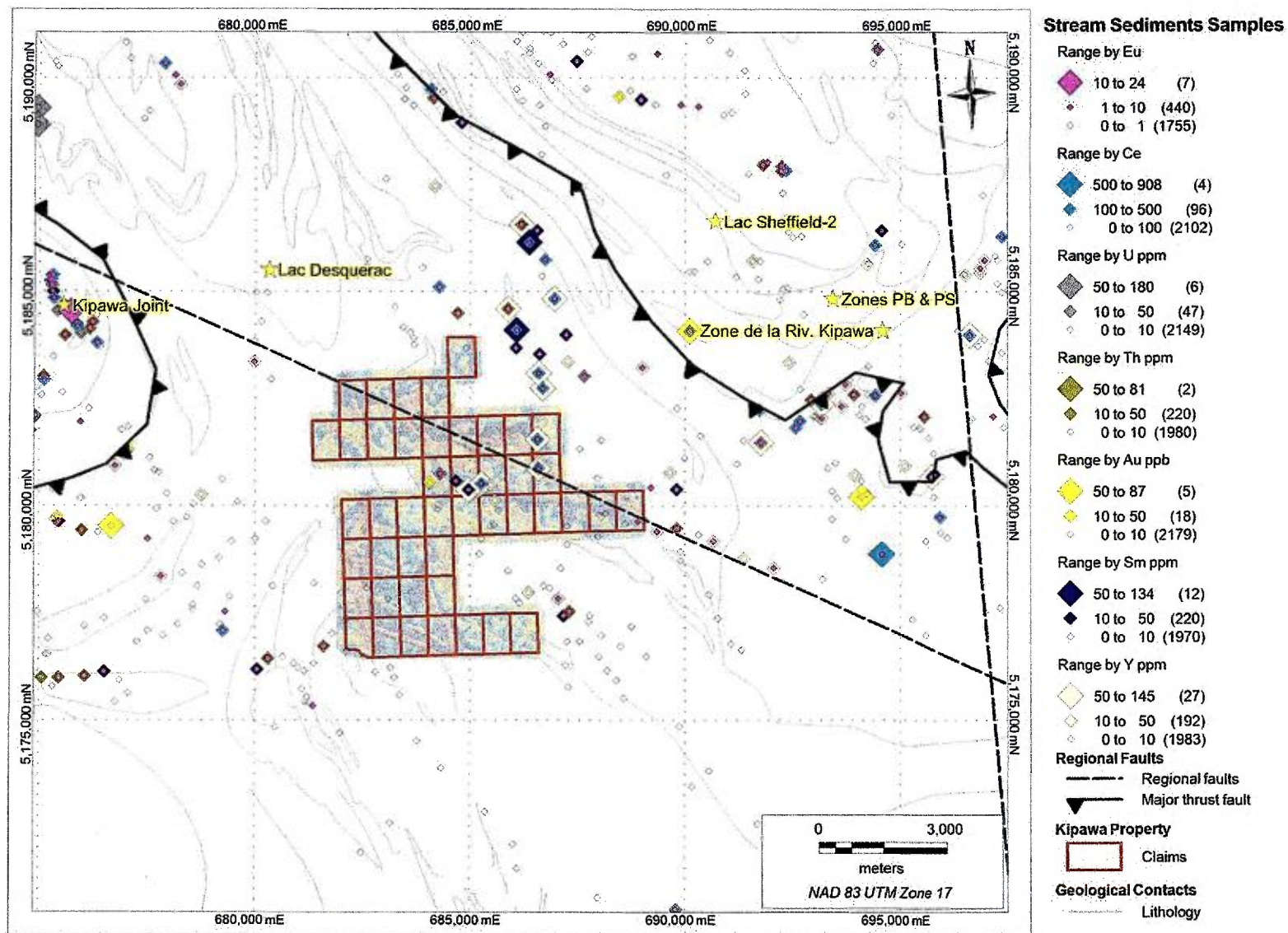
The stream sediment sampling program carried out by the MRN in the late 1960's and early 1970's revealed several anomalous values in Y, Au, Ce, Eu, Sm, Th and U. When compared with regional known mineralized showings, the Kipawa Joint (U-Au-Ag-Th) also coincides with anomalous values in REE, U and Th, whereas the Lac Desquerac, Lac Sheffield, Zone PB & PS and Zone de la Riviere Kipawa all fall in areas where no stream sediment samples were collected.

Apart from the Kipawa Joint showing, two main zones of anomalous values may be identified, one is located in the center of the Kipawa property and stretches in an E-W direction for approximately 2 km while the second lies just north of the Kipawa claims and spans N-S for over 4 km (Figure 6). This suggests that additional work is warranted to assess the potential of the Kipawa property to host REE, Au or U mineralization.

**Table 3:** Selected analytical results and ranking of stream sediments samples (MRN survey) located within the Kipawa property.

Sample #	Y ppm	Au ppb	Ce ppm	Eu ppm	Sm ppm	Th ppm	U ppm	Y Value Rank	Au Value Rank	Ce Value Rank	Eu Value Rank	Sm Value Rank	Th Value Rank	U Value Rank
1967009103	4	25	18	0.3	2	2	3.7		10 / 2202					
1967009106	50	6	197	3.3	27	20	3.6	27 / 2202		28 / 2202				
1967009107	12	5	39	0.7	6	5	4							
1967009109	113	0	204	5.2	34	26	6	6 / 2202		27 / 2202	39 / 2202	23 / 2202	16 / 2202	
1967009360	5	5	31	0.7	5	5	2.2							
1967009361	3	5	24	0.5	3	5	1.9							
1967009364	5	5	22	0.4	3	4	2.5							
1967009366	11	5	18	0.6	5	3	2							
1967009369	7	5	19	0.5	4	4	1							
1967009370	7	5	22	0.4	4	4	2.2							
1967009371	10	5	31	0.6	5	5	6							
1967009387	6	5	33	0.6	5	5	4.5							
1967009388	9	0	36	0.8	6	5	0.5							
1967009362	1	5	10	0.2	2	3	2.4							
1967009365	54	5	29	1.8	15	5	8	25 / 2202						
1967009372	7	0	23	0.5	3	3	0.5							
1967009382	0	5	0	0	0	0	7.3							
1967009385	7	5	17	0.4	4	3	2.8							
1967009389	15	5	64	1.1	9	8	2.8							
1967008951	0	0	0	0	0	0	5							
1967009104	19	5	66	1.2	10	7	12.4							42 / 2202
1967009108	76	5	121	3.5	26	13	5.8	16 / 2202						
1967009111	10	5	29	0.6	4	7	5.4							
1967009363	7	5	26	0.4	3	4	1							
1967009386	3	5	18	0.3	3	3	3							
1967009105	31	5	82	1.6	13	9	5							

**Note:** The above are historical results obtained from the MRNF SIGEOM database.



**Figure 6:** Location of MRN stream sediment samples and result highlights in vicinity of the Kipawa property claims. Note samples with anomalous Y, Au, Ce, Eu, Sm, Th and U (Table 3) on the Kipawa property and just north of the property. Also shown are regional mineral showings as in Figure 5. Background to Kipawa claims from LAKESIDE (GPR) July 2011 geophysical survey (MAG 1<sup>st</sup> vertical derivative).

## 9.0 CURRENT WORK PROGRAM

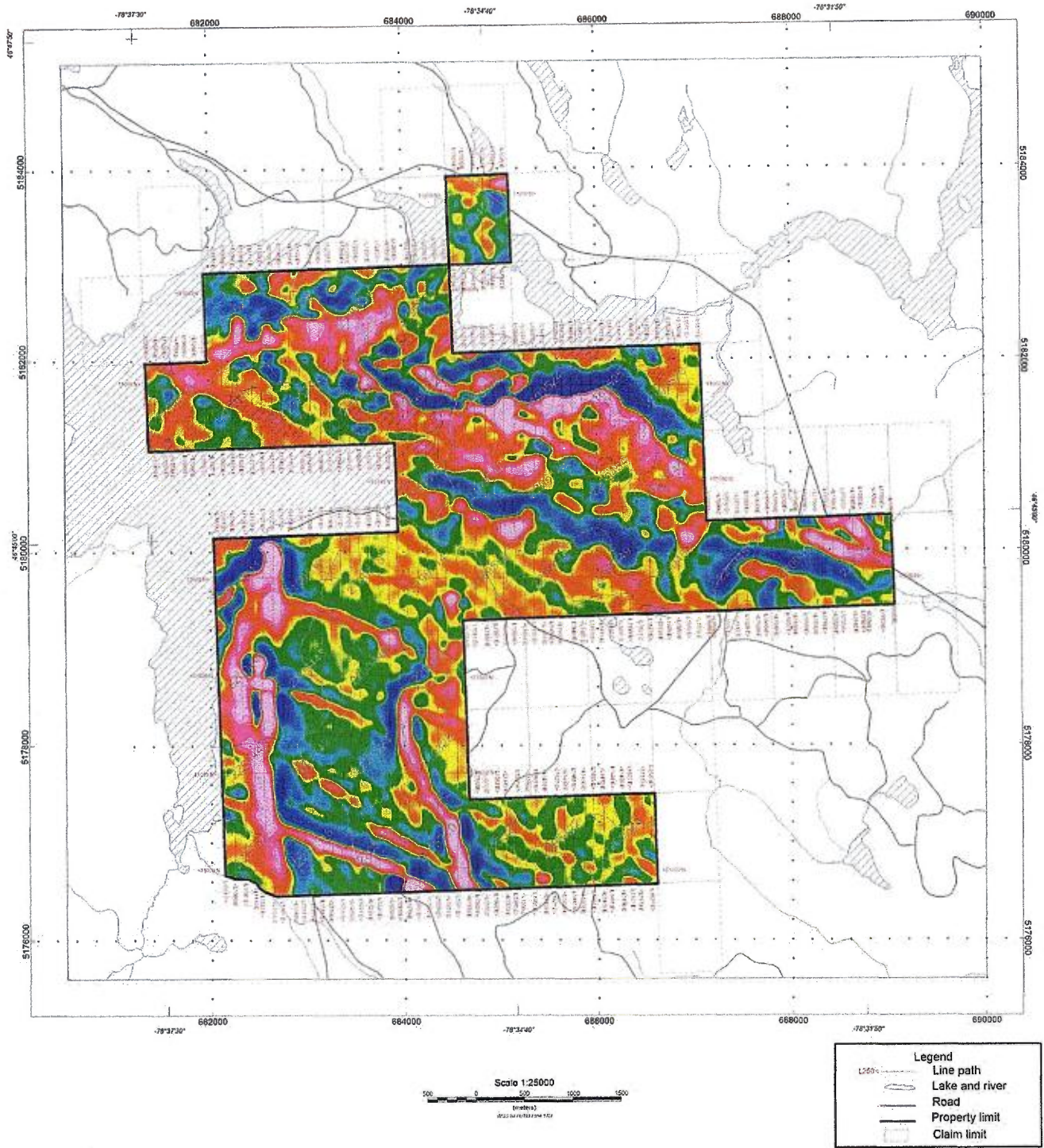
During the months of April through to November of 2011, data compilation, which consisted in a review of historical exploration work on the Kipawa claims, was carried out in order to evaluate the mineral potential of the property. Compilation results are presented in section 4.0 (HISTORY) of this report.

In July of 2011, *Geophysics GPR International Inc.* carried out a helicopter-borne gradiomagnetic, spectrometric and VLF-EM geophysical survey on behalf of LAKESIDE. The survey was flown on July 7th, 2011 and covers the entire Kipawa claim block for a total of 292.5 line-km (Figure 7).

The total magnetic field, the diurnal free horizontal magnetic gradient, the EM-VLF total field, its quadrature, and gamma-ray spectrum were measured by the helicopter-borne system. DGPS positioning, magnetic diurnal variation and radar altitude data were also collected. The final paper products consist of maps at scale 1:25 000. A total of ten (10) maps were produced:

- 1) Flight path recovery and claims limit map;
- 2) Enhanced Residual Magnetic Field, (nT);
- 3) First Vertical Derivative, (nT/m);
- 4) Potassium Concentration, (%);
- 5) Equivalent Uranium Concentration, (eppm);
- 6) Equivalent Thorium Concentration, (eppm);
- 7) Air Absorbed Dose Rate, (nGy/h);
- 8) VLF Quadrature component, (V);
- 9) VLF Total Field component, (V);
- 10) Digital Elevation Map, (m).

Data processing and quality control was carried out by *Geophysics GPR International Inc.*, digital products, final databases, maps, metadata files, final grid files and report are presented and attached to this report in Appendix I.



**Figure 7:** Flight path and first vertical derivative of residual magnetic field over the Kipawa property: data from 2011 *Geophysics GPR International Inc.* helicopter-borne survey (see Appendix I).

## 10.0 CONCLUSIONS & RECOMMENDATIONS

The purpose of this report was to present a brief overview of the Kipawa property and surrounding area including regional historical exploration work, results of governmental regional geochemical surveys, and the airborne geophysical survey conducted by Lakeside Minerals Corp.

Since the 1950's, the region surrounding and generally north of the Kipawa property has seen extensive geological mapping, geochemical and geophysical surveys. Several REE, Au and U mineral showings have been discovered including the recent discovery of the Kipawa REE-Y deposit, Zeus property, by Matamec Explorations Inc. located some 5.8 km northeast of LAKESIDE's Kipawa property. The Kipawa deposit is a rare earths and yttrium resource with zirconium as a by-product.

The LAKESIDE Kipawa property claims have seen limited exploration. However, claims were covered by regional governmental geological mapping, geochemical, and geophysical surveys.

A regional stream sediment geochemical sampling program carried out by the MRN in the late 1960's revealed several samples with anomalous values in Y, Au, Ce, Eu, Sm, Th and U located on the Kipawa property claims and immediately north of the claims. This suggests that additional work is warranted to assess the potential of the Kipawa property to host REE, Au or U mineralization.

During the months of July through to November of 2011, LAKESIDE carried out a helicopter-borne gradiometer, spectrometric and VLF-EM geophysical survey along with data compilation in order to evaluate the mineral potential of the property.

The total magnetic field, the diurnal free horizontal magnetic gradient, the EM-VLF total field and gamma-ray spectrum measured by the helicopter-borne survey are currently being used by LAKESIDE to further define the geology of the property and plan additional field work.

In view of above considerations, property claims should be maintained and additional exploration work is warranted. Such work may include the following:

- Ongoing compilation and integration of geological, geochemical and geophysical reports.
- Field prospecting and follow up of the identified geochemical/geophysical anomalies from historical/current surveys.
- Property scale geological mapping and geochemical soil survey to define anomalous zones and alterations.
- Detailed analysis of acquired information in order to re-evaluate the mineral potential.

## 11.0 REFERENCES

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## 12.0 CERTIFICATE OF QUALIFICATION

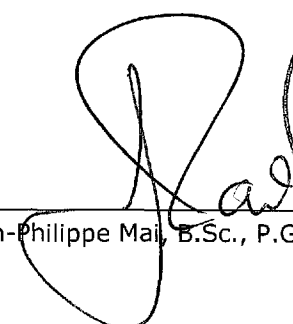
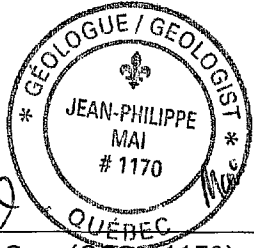
Report Title: **PRELIMINARY EXPLORATION REPORT ON THE KIPAWA PROPERTY**

I, Jean-Philippe Mai, residing in St-Bruno-de-Montarville, Québec, Canada do hereby certify that:

- I am an independent consulting geologist contracted by *LAKESIDE MINERALS CORP.* to carry out this report on the *KIPAWA PROPERTY*.
- I am a graduate of Université du Québec à Montréal (UQAM), Montréal, Québec with a B.Sc. in Geology in 2003; I have participated in exploration programs for gold, base metals and coal in Canada, Guyana, Australia and in the Dominican Republic.
- I am a member in good standing of l'Ordre des Géologues du Québec (#1170).
- I am the author of this report, titled "*PRELIMINARY EXPLORATION REPORT ON THE KIPAWA PROPERTY*" and dated *December 30<sup>th</sup> 2011*
- I have not personally visited the property.

Dated December 30<sup>th</sup>, 2011

Montréal, Québec, Canada

  
  
Jean-Philippe Mai, B.Sc., P.Ge. (OGQ #1170)

APPENDIX I

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09 JAN. 2012  
DIRECTION DES TITRES MINERS

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