

NI 43-101 TECHNICAL REPORT
on the
LAC DUCHARME REE PROJECT,
MANICOUAGAN, QUÉBEC

For

TACTICAL RESOURCES
CORP.

Prepared by:

Martin Demers, P. Geo (OGQ 770)

Effective Date: Sept 29th, 2022

CERTIFICATE OF QUALIFIED PERSON

I, Martin Demers P. Geo, certify that;

1. I am an independent geologist with a residence at 69 rue Pierre, Val-d'Or, J9P 4L8.
2. This certificate applies to the technical report entitled "NI 43-101 Technical Report on the Lac Ducharme Project, Manicouagan, Quebec" dated September 29th, 2022.
3. I am a graduate of the Université du Québec à Montreal with a Bachelors of Geology (1996) and I have practiced my profession continually since that time. This practice has included involvement in all phases of the Aurizon Mines Kipawa REE project Quebec, including airborne geophysics, soil and till sampling, mineralogical studies and drilling.
4. I am a member in good standing of the Ordre des géologues du Québec, license number 770, and of the Engineers & Geoscientists New Brunswick, license number L5980.
5. I am a "Qualified Person" for the purposes of NI 43-101.
6. I have read NI 43-101 as well as all sections of this Report, verify that this Report was prepared in compliance with the Instrument, and am responsible for all sections of this Report.
7. I visited the Lac Ducharme Property on May 5th 2021.
8. I am independent, as described in Section 1.5 of NI 43-101, of the Lac Ducharme Property, Tactical Resources Corp. and Doctors Investment Group Ltd. I have had no prior involvement with the Lac Ducharme Property prior to the preparation of this Report.
9. As of the date of this certificate, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make this Technical Report not misleading.

Effective Date: Sept. 29, 2022 |




Martin Demers P. Geo (OGQ #770)

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*Note: All UTM's are in NAD83 zone 19T. All northings are against true/geodetic north.
Costs are in Canadian Dollars unless otherwise specified*

1.0 SUMMARY

1.1 General

Martin Demers P.Geo (OGQ #770) has been retained by Tactical Resources Corp. (Tactical) to complete a technical report prepared in accordance with National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* (NI 43-101) pertaining to the Lac Ducharme Property (the Lac Ducharme Property or the Property). The purpose of this report is to disclose all material scientific and technical information pertaining to the Property, in accordance with NI 43-101. The report is to be used to support the property value as a property of merit of Tactical Resources.

Property Description, Location and Access

The Lac Ducharme Property is located in the Manicouagan regional county municipality (MRC) in the Cote-Nord region of eastern Québec, 150 km north of the largest regional town, Baie-Comeau, and 12 km southwest of the Daniel Johnson dam.

The Property consists of twenty-three (23) “CDC” Claims registered to Doctors Investment Group Ltd, with a combined area of 1,257.64 Ha. The “Lucia” REE occurrence on the Property lies at UTM 510,162mE, 5,601,234mN, NAD83zone 19U.

Through a property option agreement dated March 1, 2021 (the Effective Date), Tactical has the option to acquire a 100% interest in the Lac Ducharme Property from the present claim holder, Doctors Investment Group Ltd. (Doctors) of Quesnel, British Columbia. This is in return for Tactical making payments of \$30,000 within seven days of the Effective Date (paid) and again within fourteen months of the Effective Date, as well as issuing 60,000 common shares within seven days of the Effective Date (issued), 100,000 common shares within fourteen months of the Effective Date, and 350,000 common shares within twenty-eight months of the Effective Date. Tactical must also incur exploration expenditures of \$250,000 within fourteen months and \$500,000 within twenty-eight months of the Effective Date. Upon the successful exercise of the option to acquire a 100% of the Property, Tactical will grant Doctors a 3% net smelter return, which can be reduced to 2% upon payment of \$1,000,000 to Doctors by Tactical.

The Property can be accessed using 5 km of gravel forestry roads which connect with the paved provincial Highway 389, which provides access from the town of Baie-Comeau and Fermont and western Labrador via the Hydro-Québec installations at Manicouagan.

1.2 History

The Lac Ducharme Property was map-staked in 2019 by Doctors Investment Group. The land was previously unstaked, but parts of the property were held previously by speculators and local prospectors. The “Lucia” occurrence was covered by a claim held by Mario Bourque and Guy Barrette, local prospectors, which lapsed in 2017.

Government and academic geologists completed detailed mapping of the Lac Okaopéo area, including the Property, in 2013 (Gosselin et al 2013, Moukhsil et al

2014). During this work, two radiogenic, rare-earth-enriched pegmatite occurrences were discovered, initially catalogued as 13-TC-5072B and 13-FS-1202C. Allanite (an epidote capable of carrying large cations such as the REEs, uranium and thorium), monazite (a thorium and REE-bearing phosphate) and parisite (a REE-bearing carbonate) were noted in sample descriptions from these and other pegmatite dykes locally (Turlin et al 2017). Grab samples returned the following values, as reported in Gosselin et al 2013 and Moukhsil et al 2014:

13-TC-5072 (sample B): 1330ppm La, 2360ppm Ce, 788ppm Nd (4809ppm total LREE)

13-FS-1202 (sample C): 1.53% La, 2.94% Ce, 1.1% Nd (6.04% total LREE), 0.28% Th

Nine claims were staked to cover these MERN discoveries by Mario Bourque and Guy Barrette, prospectors from the Baie-Comeau area. Bourque and Barrette mobilized an excavator to the area and stripped three areas close to the 13-FS-1202C occurrence, which they referred to as the “Lucia” site. Twenty grab samples were cut from the smooth bedrock with a channel saw, from numerous locations mostly in an area of about 50 m of the 13-FS-1202 site to the north and east. No detailed geologic mapping was completed. The highest results were from sample 1 of the MERN sample, which gave:

3510ppm La, 7120ppm Ce, 792ppm Pr, 770ppm Th.

1.0 Geological Setting, Mineralization, and Deposit Type

The Lac Ducharme Property lies within the Allochthonous Belt of the Grenville Province, and is underlain by granitoid bodies, chiefly the Castoreum granite in the southeast and the Bardoux 1 granite to the northwest; these are in contact along an unnamed regional-scale fault.

Dykes of LREE-enriched pegmatite were discovered at two locations on the Property in 2013, from which one grab sample returned an assay value of 6.04% LREE (Gosselin et al 2013). One of these occurrences was confirmed and tentatively expanded by prospectors in 2015. The Property is at a very early stage of exploration. The grade distribution, depth and lateral extent of the mineralization is not known.

While the Property is relatively unexplored, the author believes that it has the potential to host rare-earth element (REE) mineralization. It is presumed that economic REE mineralization, should it exist on the Lac Ducharme property, will take the form of a pegmatite hosted deposit.

1.1 Exploration and Drilling

No exploration has been completed on the Lac Ducharme Property by or on behalf of Tactical. No standard exploration drilling has taken place on the Lac Ducharme Property. The September 2021 backpack drilling must be considered as an alternative sampling in the prospecting phase. Tactical completed a field program in 2021 and 2022 on Lac Ducharme and is summarized in this report.

1.2 Sampling, Analysis and Data Verification

Based on field photographs and sample descriptions, the Moukhsil et al (2014) and Barrette (2015) samples were cut from stripped bedrock using diamond saws and removed with hand tools. Samples were taken in and around the 13-FS-1202 occurrence wherever pegmatitic material was encountered or any other indicator of potentially economic mineralization, such as sulphide disseminations.

The Moukhsil et al (2014) and Barrette (2015) samples were assayed at Actlabs and ALS Minerals respectively. Both are laboratories which conform to the requirements of the ISO/IEC 17025 Standard (General requirements for the competence of testing and calibration laboratories) and regularly take part in proficiency testing. Both laboratories are independent of all past and present interested parties.

The Property was visited by Martin Demers, P. Geo, under contract with Minroc Management on the 5th May 2021. During the visit, the geology matched what has been recorded by previous visitors, and several historic sampling locations could be identified and tied to individual samples from the MERN and Barrette exploration programs.

Sample locations and results for the prospecting (rock) and samples collected during the 2021 exploration were submitted to Activation Labs in Ancaster, Ontario for analysis. For the 2021 program bedrock and backpack drill samples collected in the field were described in basic detail. Each sample was labelled with its unique sample number and this number was also recorded on the GPS and in the notes. Sample bags were sealed using plastic ties before being removed from the field. The samples were delivered in one single batch. In addition to the lab's QA/QC program, as part of the submittal of samples to the lab two blanks and two standards were inserted into the sample stream. Two silica blanks and two OREAS 461 standards were used. They were inserted between collected samples in the sample stream.

1.3 Mineral Resource and Mineral Reserve Estimates

The Property is an early-stage exploration property. There are no current Mineral Resources or Reserves on the Project as defined in the Definition Standards on Mineral Resources and Mineral Reserves published by the Canadian Institute of Mines, Minerals and Petroleum (CIM) or any equivalent international code.

1.4 Recommendations for Exploration

The author recommends that Tactical complete a two-stage program to advance the Property: A Phase 1 based on prospecting sampling follow up of radiometry anomalies identified during the 2022 geophysics survey that covered most parts of the Property. Detailed magnetometry and radiometry are proposed on targets. Depending of field condition a small track excavator could help to reach the bedrock (Table 1). Total cost for Phase 1 is evaluated at \$175,000 all included.

The exact nature of Phase 2 will depend on findings from Phase 1 but the implementation of Phase 2 will not depend on any specific outcome from Phase 1.

Table 1 – Recommendations

Phase	Recommendation	Item	Unit/Quantity/Rate	Cost (CAD, pre tax)
Phase1	Follow up on 2021 radiometric anomalies	Ground Radiometry and magnetometry, Line cutting Pitting and sampling Geological mapping	4 weeks mobilization	\$150,000
Phase 1		Reporting		\$25,000
	Phase 1 Total cost			\$175,000
Phase 2	Stripping and sampling	Access and excavation works	4 weeks mobilization	\$120,000
		Channel sampling		
		Mapping		
Phase 2	Aerial photo or imagery	Data acquisition		\$10,000
		Analysis		\$20,000
Phase 2		Reporting		\$25,000
	Phase 2 Total Costs*			\$175,000

* These costs are estimates only

2.0 INTRODUCTION

Martin Demers P.Geo has been retained by Tactical Resources to compose a Technical Report prepared in accordance with NI 43-101 pertaining to the Lac Ducharme Property. The purpose of this report is to disclose all material scientific and

technical information pertaining to the Lac Ducharme Property, in accordance with NI 43-101. The report is to be used in support of a non-offering prospectus whereby Tactical will become a reporting issuer in Canada as well as a listing on the Canadian Securities Exchange.

The Lac Ducharme Property lies within the Grenville Province, which forms the southeastern rim of the Canadian Shield, a highland following the north shore of the St-Lawrence River, Côte Nord region, Québec. The Lac Ducharme Property is underlain by granitoids of Proterozoic age (approx. 1.6 Ga to 0.9 Ga) where a REE potential was identified following regional geological mapping work and mineral potential evaluation done by the MERN (Ministère de l'Énergie et des Ressources Naturelles du Québec) over the past decades.

Pegmatite dyke of LREE-enriched, allanite-bearing pegmatites were discovered at two locations on the Property in 2013, from which one grab sample returned an assay value of 6.04% LREE (Gosselin et al 2013). One of these occurrences was confirmed and tentatively expanded by prospectors in 2015.

Tactical Resources has undertaken first exploration works on the property in 2021, and consisted of a rock sampling program which results support the initial evaluation done at the acquisition. A follow up geophysics program was completed in 2022 and consisted of a magnetic and radiometric survey. The property is relatively unexplored, and the geological context evaluated as favorable, the author believes that it has the potential to host rare-earth element (REE) mineralization.

The Property is an early-stage exploration property. There are no current mineral Resources or Reserves on the Project as defined in the Definition Standards on Mineral Resources and Mineral Reserves published by the Canadian Institute of Mines, Minerals and Petroleum (CIM) or any equivalent international code.

2.1 Notes on Issuer

Tactical Resources Corp (Tactical Resources) is a company incorporated in British Columbia, Canada and has an office at 2288-1177 West Hastings St, Vancouver, BC, V6E 2K3.

Through a property option agreement dated March 1st, 2021, Tactical Resources has the option to acquire a 100% interest in the Lac Ducharme Property from the present claim holder, Doctors Investment Group Ltd.

Through a property option agreement dated March 1st 2021, Tactical Resources Corp, of Vancouver, British Columbia (Tactical Resources or Tactical), has the option

to acquire a 100% interest in the Lac Ducharme Property from the present claim holder, Doctors Investment Group Ltd (Doctors) of Quesnel, British Columbia. This is in return for Tactical Resources making payments of \$30,000 within seven days of the Effective Date and again within fourteen months of the Effective Date, as well as issuing 60,000 shares within seven days of the Effective Date, 100,000 shares within fourteen months of the Effective Date, and 350,000 shares within twenty-eight months of the Effective Date. Tactical Resources must also incur exploration expenditures of \$250,000 within fourteen months and \$500,000 within twenty-eight months of the Effective Date (Popova& Ross 2021).

2.2 Terms of Reference

The following list presents the terms of reference used in this report (Table 2).

Table 2 - Terms of Reference

Abbreviation or term	Definition
°	Degrees (angle)
°C	Degrees Celsius (temperature)
CDC	Claim Designé sur Carte (Québec mining claim type)
Ce	Cerium (a light rare earth element; chemical symbol)
CIM	Canadian institute of Mining, Minerals and Petroleum
Dy	Dysprosium (a heavy rare earth element; chemical symbol)
EM	Electromagnetic (geophysical conductivity survey)
Er	Erbium (a heavy rare earth element; chemical symbol)
Eu	Europium (a heavy rare earth element; chemical symbol)
Fe	Iron (chemical symbol)
Ga	Billion years (Giga-annum, age)
Gd	Gadolinium (a heavy rare earth element; chemical symbol)
Ha	Hectare (area)
Ho	Holmium (a heavy rare earth element; chemical symbol)
HREE	Heavy Rare Earth Element (generally, Samarium and heavier)
JORC	Joint Ore Reserves Committee (Australian mineral resource reporting code)
JV	Joint Venture
kg	Kilogram (weight)
km	Kilometre (distance)
km ²	Square kilometre (area)
La	Lanthanum (a light rare earth element; chemical symbol)
LREE	Light Rare Earth Element (generally, Promethium and lighter)
Lu	Lutetium (a heavy rare earth element; chemical symbol)
m	Metre (distance)
MERN	Ministère d'Environnement et Ressources Naturelles (Québec ministry)
MFFP	Ministère des Forêts, de la Faune et des Parcs (Québec ministry)
mm	Millimetre (distance)
Mn	Manganese (chemical symbol)
Mo	Molybdenum (chemical symbol)
Nd	Neodymium (a light rare earth element; chemical symbol)
NI 43-101	National Instrument 43-101 (Canadian mineral resource reporting code)
P. Geo	Professional Geoscientist (as accredited in Canada)
Pr	Praesodymium (a light rare earth element; chemical symbol)
REE	Rare-Earth Element (group of heavy metals with highly derived magmatic affinity and applications in high technologies)

QA/QC	Quality Assurance and Quality Control
Sc	Scandium (sometimes considered a rare earth element, chemical symbol)
SEDAR	System for Electronic Document Analysis and Retrieval (Canadian securities document filing system)
SIGEOM	Système d'information géominière (Québec online geoscience and exploration data repository)
Sm	Samarium (a heavy rare earth element; chemical symbol)
SOQUEM	Société Québécoise d'Exploration Minière
t	Tonne (weight)
Tb	Terbium (a heavy rare earth element; chemical symbol)
Th	Thorium (chemical symbol)
Tm	Thulium (a heavy rare earth element; chemical symbol)
UTM	Universal Transverse Mercator (coordinate reference system)
XRF	X-Ray Fluorescence (geochemical analytical method)
Y	Yttrium (sometimes considered a rare earth element, chemical symbol)
Yb	Ytterbium (a heavy rare earth element; chemical symbol)

2.3 Sources of Information

This report was written based upon documents and data, both public and private, provided by Tactical Resources, as well as publicly available reports and data accessed via SEDAR, GESTIM and SIGEOM. The author has reviewed all data acquired publicly and provided by Tactical Resources and believe that it is sufficiently accurate for the purposes of this Technical Report.

2.4 Personal Inspection

The Property was visited by helicopter by Martin Demers, P. Geo, on behalf of Minroc Management on the 5th of May 2021. The two known LREE occurrences were visited, and historic work was documented in both locations.

3.0 RELIANCE ON OTHER EXPERTS

The author has not relied upon the opinion of non-qualified persons in the preparation of this Technical Report. The opinions expressed in this Report are those of the author and are based upon their review of the historical work completed on the Property as documented in publicly available data.

The author has not investigated the ownership or otherwise legal or tax status of the mineral tenure and are not qualified to do so. On these subjects, the author has relied upon the Option Agreement provided by Tactical (Popova & Ross 2021) and the Québec Mining Act. This disclaimer applies to Items 4.3 to 4.8 of this Report.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Area

The Lac Ducharme Property has a total area of 1,257.64 Ha and forms one contiguous block, oriented east-west.

4.2 Location

The Lac Ducharme Property is located in the Manicouagan regional county municipality (MRC) in the Cote-Nord region of eastern Québec, 150 km north of the largest regional city, Baie-Comeau, and 12 km southwest of Manic-Cinq, a service settlement for the Manicouagan hydroelectric works. The area is not subdivided into surveyed townships. The Property lies within NTS sheet 22K/10. The “Lucia” REE occurrence on the Property lies at UTM 510,162mE, 5,601,234mN, NAD83 zone 19U (Figure 1).

4.3 Description of Mineral Tenure

The Property consists of twenty-three (23) “CDC” Claims registered to Doctors Investment Group Ltd, with a combined area of 1,257.64 Ha (Figure 2, Table 3) as of September 21st. The transcription of ownership and expiration were checked by the author on government of Québec gestim platform (<https://gestim.mines.gouv.qc.ca/>). In any case, this verification can not constitute a legal verification.

Through a property option agreement dated March 1st 2021, Tactical Resources Corp, of Vancouver, British Columbia (Tactical Resources), has the option to acquire a 100% interest in the Lac Ducharme Property from the present claim holder, Doctors Investment Group Ltd (Doctors) of Quesnel, British Columbia. This is in return for Tactical Resources making payments of \$30,000 within seven days of the Effective Date and again within fourteen months of the Effective Date, as well as issuing 60,000 shares within seven days of the Effective Date, 100,000 shares within fourteen months of the Effective Date, and 350,000 shares within twenty-eight months of the Effective Date. Tactical Resources must also incur exploration expenditures of \$250,000 within fourteen months and \$500,000 within twenty-eight months of the Effective Date (Popova & Ross 2021).

Table 3 - Claim Details

CDC Claim #	Area Ha	Date Acquired	Date Due	Holder	Work Red	Notes
2529388	54.69	2019-01-08	2025-01-07	Doctors Investment Group Ltd	\$1,200	
2529389	54.69	2019-01-08	2025-01-07	Doctors Investment Group Ltd	\$1,200	
2529390	54.69	2019-01-08	2025-01-07	Doctors Investment Group Ltd	\$1,200	Lucia Occurrence
2529391	54.69	2019-01-08	2025-01-07	Doctors Investment Group Ltd	\$1,200	
2529392	54.68	2019-01-08	2025-01-07	Doctors Investment Group Ltd	\$1,200	
2529393	54.68	2019-01-08	2025-01-07	Doctors Investment Group Ltd	\$1,200	
2529394	54.68	2019-01-08	2025-01-07	Doctors Investment Group Ltd	\$1,200	
2529395	54.68	2019-01-08	2025-01-07	Doctors Investment Group Ltd	\$1,200	Overlap with an experimental forest
2529396	54.68	2019-01-08	2025-01-07	Doctors Investment Group Ltd	\$1,200	Overlap with an experimental forest
2529397	54.67	2019-01-08	2025-01-07	Doctors Investment Group Ltd	\$1,200	
2529398	54.67	2019-01-08	2025-01-07	Doctors Investment Group Ltd	\$1,200	
2529399	54.67	2019-01-08	2025-01-07	Doctors Investment Group Ltd	\$1,200	
2529400	54.67	2019-01-08	2025-01-07	Doctors Investment Group Ltd	\$1,200	
2529401	54.67	2019-01-08	2025-01-07	Doctors Investment Group Ltd	\$1,200	13-TC-5072 Occurrence
2529402	54.67	2019-01-08	2025-01-07	Doctors Investment Group Ltd	\$1,200	
2529403	54.66	2019-01-08	2025-01-07	Doctors Investment Group Ltd	\$1,200	
2529404	54.66	2019-01-08	2025-01-07	Doctors Investment Group Ltd	\$1,200	
2529405	54.66	2019-01-08	2025-01-07	Doctors Investment Group Ltd	\$1,200	
2529406	54.66	2019-01-08	2025-01-07	Doctors Investment Group Ltd	\$1,200	
2529407	54.66	2019-01-08	2025-01-07	Doctors Investment Group Ltd	\$1,200	
2529408	54.66	2019-01-08	2025-01-07	Doctors Investment Group Ltd	\$1,200	
2529409	54.66	2019-01-08	2025-01-07	Doctors Investment Group Ltd	\$1,200	
2529410	54.66	2019-01-08	2025-01-07	Doctors Investment Group Ltd	\$1,200	

4.4 Nature of Issuer's Title

In Québec, Mineral Claims confer upon the holder the exclusive right to explore for all mineral substances excluding petroleum, gas, brine, and surficial deposits such as sand, gravel and clay. A Mineral Claim does not confer any surface rights save for access for the purpose of exploration in accordance with the Québec Mining Act.

A Mining Lease must first be acquired prior to the commencement of mining. Application for a Mining Lease must be accompanied by a feasibility study, a rehabilitation and restoration plan, detailed parcel surveys, and prior assessment of the proposed project according to the Environment Quality Act, submitted to the MERN.

Mineral Claims endure for two years and can be renewed following the filing of reports of exploration work meeting the required value for assessment credits or making an in-lieu payment of twice the required assessment credit value.

For further information, the reader is directed to review the Québec Mining Act, available on the MERN website, mern.gouv.gc.ca

4.5 *Royalties*

Upon Tactical Resources' meeting of their option obligations to Doctors as laid out in the Agreement (Popova and Ross 2021), Doctors is to be granted a Royalty of 3% of all Net Smelter Returns, to be paid quarterly and calculated as outlined in the Agreement. Tactical has the right to purchase one third of this Royalty (i.e. reduce the Royalty to 2%) at any time for \$1,000,000.

To the best of the author's knowledge, this Royalty does not affect Tactical's title upon the Property or ability to perform work upon it, nor are there any other royalties, back-in rights, payments, or other agreements or encumbrances which would affect the same.

4.6 *Environmental liabilities*

To the best of the author's knowledge, there are no environmental liabilities which would affect the Issuer's title upon the Property or ability to perform work upon it. Following the site visit, it was found that all works were done in one stripping phase as described in Barrette, G., 2015. No artefact remains of these works, except the disturbance of stripping works on the surrounding environment which were supervised by the MFFP.

According to the Option Agreement, Tactical indemnifies Doctors from and against environmental claims pertaining to any operations or activities conducted in or on the Property by or on behalf of agents following the Effective Date (Popova & Ross 2021).

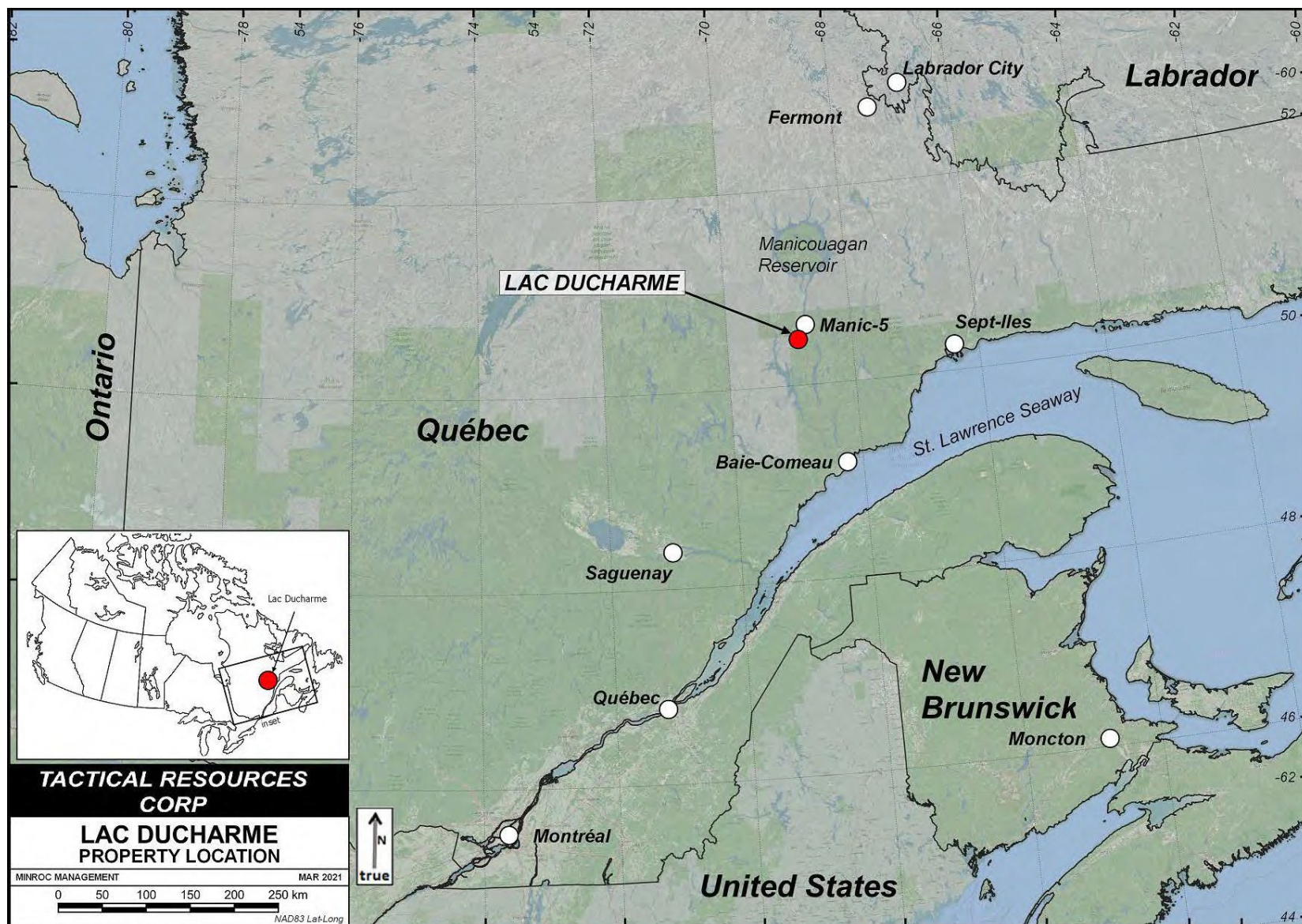
4.7 *Permits Required*

The author believes that the most invasive near-term exploration on the Property would involve diamond drilling or trenching. Either activity may require the cutting of trees for access routes, drill pads or trenching areas. A permit for tree cutting is required from the MERN prior to beginning this work. The Ministry must be provided with plans outlining proposed access routes, drill pads and other work sites for which cutting would be required. Permitting time is generally in the order of two to four weeks.

4.8 *Other Factors*

The Property lies within an agreement area between the province and the Nitassinan Innu First Nation of Pessamit (Betsiamites), Québec (agreement 45400). Tactical Resources is advised to communicate any significant exploration plans with the Nitassinan Innu Nation particularly vis a vis impacts to hunting and other traditional activities.

The property overlaps with an area of about 6 Ha in which exploration activity is restricted. This is an experimental forestry area (number 30404) and overlaps with parts of claims 2529395 and 2529396. This is removed from the two known LREE occurrences and does not impinge upon exploration of those occurrences in any way. Certain exploration activities may be permitted within the experimental forestry area upon liaison with the MERN and MFFP (Ministry of forestry, wildlife and parks). The author recommends, prior to initiating ground-based exploration, that Tactical Resources contact the MFFP in order to clarify what activities may or may not be permissible within the area.



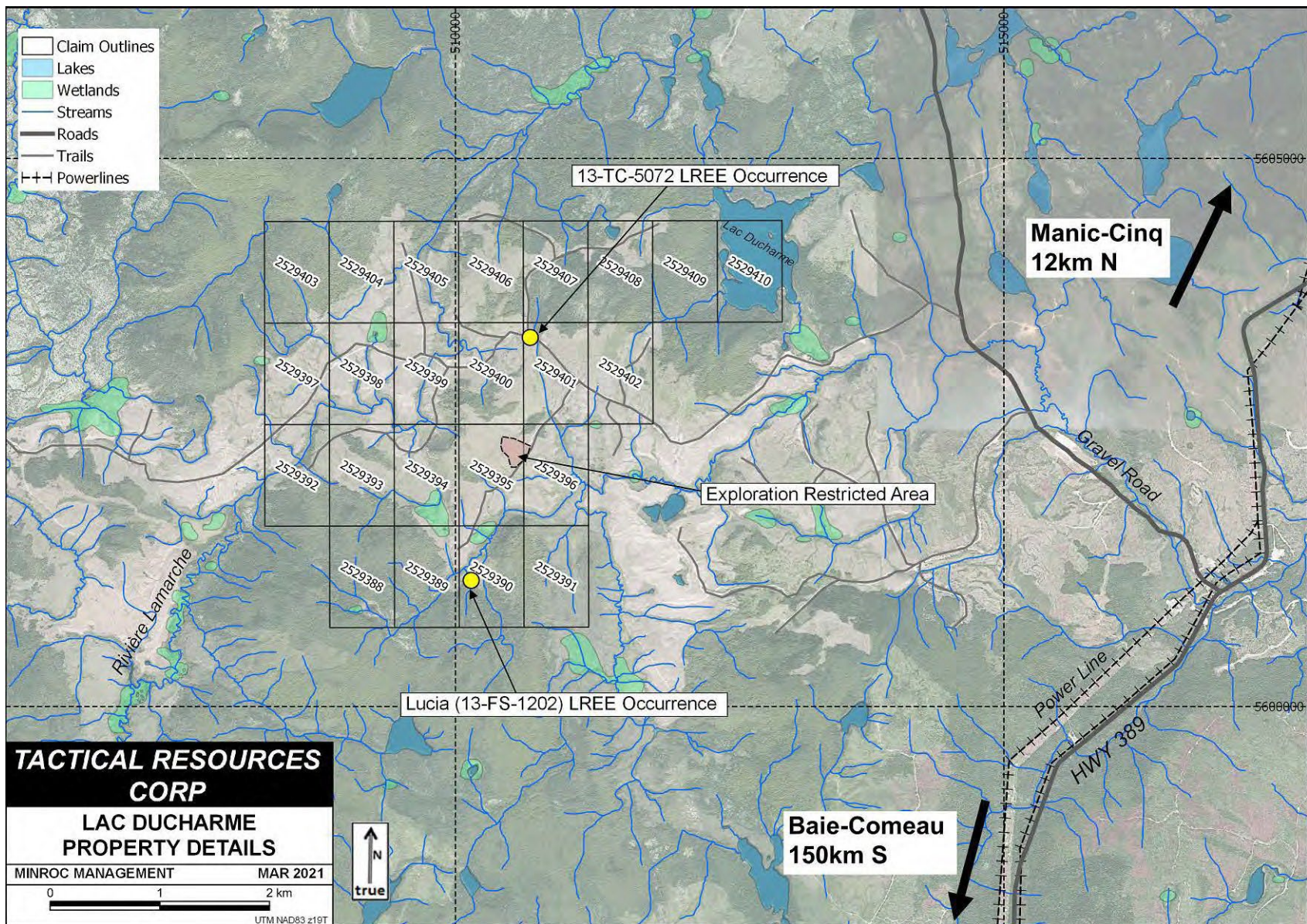


Figure 2 - Property Detail and Access

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE & PHYSIOGRAPHY

5.1 *Topography, Elevation and Vegetation*

The Lac Ducharme Property lies in very hilly terrain typical of the Grenville province. Elevation averages about 500 m, varying from about 460 m in areas close to the Rivière Lamarche in the southeast, to about 600 m in the northwest corner, on the flank of a large hill. Vegetation consists of thick stands of spruce and fir in varying stages of regrowth after forestry operations.

The Property is drained by the Rivière Lamarche which flows northeast across the Property before draining into the Manicouagan River a short distance downstream of Manic-Cinq. The Manicouagan River flows southward into the St. Lawrence Seaway.

The largest lake on the property is Lac Ducharme which nearly fills the northeastern most claim and has an area of about 60 Ha.

5.2 *Accessibility*

The nearest paved road is provincial Highway 389 which connects the town of Baie-Comeau (150 km south of the Property; population ~25,000) to Fermont and western Labrador (350 km north) via the Hydro-Québec installations at Manicouagan. This highway runs 5 km east of the Property and connects with a partly paved access road which is used for the airfield, forestry and aggregate quarrying. This road in turn connects to a well-used forestry road which passes through the north-centre of the Property and has a bridge crossing over the Rivière Lamarche. It connects with a number of smaller trails and forestry roads which can be used to access various parts of the Property.

At Baie-Comeau, Highway 389 connects with Highway 138 which provides access to Sept-Iles, Québec City, Montreal and cities further afield.

5.3 *Proximity to Infrastructure*

The Daniel-Johnson hydroelectric dam is located 12 km north of the Property and is the focus of regional infrastructure. The small service community of Manic-Cinq lies adjacent to the dam on Highway 389 and is home to a motel, gas station and basic infrastructure contractors.

There is an airfield on Lac Louise about 8 km north of the Property which is connected to Rapide-Cinq and Highway 389 by roads. A high voltage transmission line runs south along Highway 389 from the dam. The presence of major Hydro-Québec installations

nearby means that access routes are well-maintained throughout the year.

Water for exploration purposes (e.g. drilling) is readily available from creeks and ponds on the Property. A gravel pit lies 4 km east of the Property (between the property and Highway 389) is operated by Jacques Dufour & Fils Enterprises.

There is relatively little history of mining exploration in the immediate region. However, the towns of Fermont and Labrador City have a long history of iron ore mining and exploration, and the towns of Baie-Comeau and Sept-Iles have a number of long-established businesses accustomed to supplying the mining and exploration industries.

5.4 Climate

The climate in the area of the Property is on the margin of humid continental and subarctic (Köppen Dfc and Dfb). The author could not find any climate data for the Manicouagan area, but it is likely to be intermediary between Baie-Comeau and Fermont, likely with average summer highs of 15°C and winter lows of -20°C. Average annual precipitation is likely to be in the order of 900 mm of which about 300 mm is snow.

Early-stage exploration, such as surveying, is possible year-round. Drilling should be possible year-round save for brief spring thaw and winter freeze-up periods.

5.5 Development Requirements

The Lac Ducharme Property is at a very early stage of development. Should the Property prove to host economic mineralization in the future, Tactical must apply for a Mining Lease (see Item 4.4) which, if approved, would provide the right to establish processing plants, ore and waste storage areas, and other mining infrastructure.

In the event of future development, the Property is well-positioned to benefit from nearby hydroelectric power at Daniel-Johnson and water supplies from the Manicouagan River which lie within 12km of the Property.

6.0 HISTORY

6.1 Prior Ownership

The Lac Ducharme Property was map-staked in 2019 by Doctors Investment Group Ltd. The land was previously unstaked, but parts of the property were held previously by speculators and local prospectors. The “Lucia” occurrence was covered by a claim held by Mario Bourque and Guy Barrette, local prospectors, which lapsed in 2017.

6.2 Discussion of Work

There has been little historic dedicated exploration within the confines of the present Lac Ducharme Property. The wider Manicouagan region has been covered by several government and academic regional exploration programs, which eventually led to the discovery of REE-enriched pegmatite outcrops. A summary of historic work is tabulated in Table 4 and is described here.

The Geological Survey of Canada completed the earliest geologic mapping of the Manicouagan region on record, in 1897. Relatively little academic attention was afforded the Grenville Province in comparison to other areas of the Canadian Shield.

A number of regional exploration programs were completed by the MERN and SOQUEM (an arms-length provincial exploration agency) in the 1970s with the aim of outlining exploration targets in the Grenville Province, particularly for uranium and base metals. The Lac Ducharme property falls within an area of interest referred to as *Projet Manic* which covered much of the terrain between the Manicouagan reservoir and the St. Lawrence coast. Airborne radiometry, magnetic and resistivity surveys were flown over numerous grids within this area, and reconnaissance level lake sediment sampling was completed over the entire area. Follow-up groundwork, including bedrock sampling, was completed on promising geophysical and geochemical targets. Minor elevations in Fe, Mn and Mo were noted from samples taken from Lac Ducharme (Gleeson 1976, McCann & Lacasse 1977) but were not followed up on. There were few other findings of note were made in the immediate area of the property.

A regional-scale reconnaissance exploration program was completed by Manicouagan Exploration in 2004, on a number of properties spanning the path of the Manicouagan River and reservoir. The focus of this work was PGE and Ni mineralization in ultramafic bodies, some of which lie within ~20 km of the Property.

The MERN's attention returned to the Grenville Province in the late 2000s. A number of regional-scale magnetic surveys were flown in 2006 and 2012. A 2009 study reworked older SOQUEM radiometric and soil/lake/stream geochemical data to identify regions favourable for various types of uranium deposits. The general area around Lac Ducharme was considered to have a low to moderately favourable environment for Rössing-type, granite-hosted uranium deposits (Trépanier 2009).

MERN and academic geologists completed detailed mapping of the Lac Okaopéo area, including the Property, in 2013 (Gosselin et al 2013, Moukhsil et al 2014). During this work, two radiogenic, rare-earth-enriched pegmatite occurrences were discovered, initially catalogued as 13-TC-5072B and 13-FS-1202C. Allanite (an epidote capable of carrying large cations such as the REEs, uranium and thorium), monazite (a thorium and REE-bearing phosphate) and parisite (a REE-bearing carbonate) were noted in sample descriptions from these and other pegmatite dykes locally (Turlin et al 2017).

Grab samples returned the following values, as reported in Gosselin et al 2013 and Moukhsil et al 2014:

13-TC-5072 (sample B): 1330ppm La, 2360ppm Ce, 788ppm Nd (4809ppm total LREE)

13-FS-1202 (sample C): 1.53% La, 2.94% Ce, 1.1% Nd (6.04% total LREE), 0.28% Th

These results are also presented in Table 5. A detailed academic review, including thin section microscopy, microprobe analysis and whole-rock geochemistry, of the REE-bearing pegmatites in the region, including the above, was published by some of the same personnel involved in the 2013 MERN fieldwork (Turlin et al 2017).

Nine claims were staked to cover these MERN discoveries by Mario Bourque and Guy Barrette, prospectors from the Baie-Comeau area. Bourque and Barrette mobilized an excavator to the area and stripped three areas close to the 13-FS-1202C occurrence, which they referred to as the “Lucia” site. Based on the Bourque and Barrette data it appears that the UTM for the original occurrence as reported by Gosselin et al (2013) was inaccurate by about 65 m, although confusingly the Barrette (2015) assessment file repeats the original, erroneous UTM. Twenty grab samples were cut as short channels from the bedrock surface with a diamond blade saw, from numerous locations mostly in an area of about 50 m of the 13-FS-1202 site to the north and east. No detailed geologic mapping was completed. The highest results were from sample 1, a duplicate of the MERN sample, which gave:

3510ppm La, 7120ppm Ce, 792ppm Pr, 770ppm Th.

These results are also presented in Table 5. The Bourque/Barrette program can be said to have confirmed the presence of REE mineralization at the 13-FS-1202 location. Another sample, sample 22 (522), taken from another stripped outcrop about 45 m northwest of “Lucia”, gave elevated values of:

1380ppm La, 2710ppm Ce.

Some of the Bourque/Barrette samples are prefixed with a 5 (e.g. 22/522) alternately in the Barrette (2015) assessment file. They appear to have been labelled in the field with the longer form number but submitted for assay with the shorter sample number. Based on Bourque and Barrette photographs, and the Minroc site visit, sample 22 was taken from a porphyritic granite dyke, cross cutting a gneiss, and is hosted by a different, perhaps parallel, structure to the original Lucia occurrence.

Table 4 - Historic Work, Lac Ducharme Property

Year	Group	Work Completed	Notable Findings	Ref (SIGEOM)	Ref
1976	Gleeson & Associates	Regional lake sediment surveying	Mn lake sediment anomaly from Lac Ducharme	GM49162	Gleeson 1976

1976	SOQUEM	Airborne radiometry, magnetics; lake sediments sampling, over ~30,000 km ² of Manicouagan region, focused on uranium and base metals exploration	Fe and Mo lake sediment anomalies from Lac Ducharme	GM49165	McCann & Lacasse 1977
1977	MERN	Review of Grenville economic geology w.r.t. regional exploration proposals	None in immediate property area	GM39070	Wilson 1977
1977	SOQUEM	Ground follow up of airborne radiometric and magnetic anomalies	None in immediate property area	GM58642	SOQUEM 1977
1977	SOQUEM	Airborne resistivity over select target areas, ground geologic mapping	None in immediate property area	GM49156	McCann et al 1977
1978	MERN	Various maps to accompany contemporary regional surveys		GM49161	Richard 1978
2004	Manicouagan Exploration	Regional exploration for Ni, PGEs in peridotite bodies	None in immediate property area	GM62379	Hurtubise 2005
2006	MERN	Airborne magnetic survey, Grenville Province		DP-2006-01	Dion 2006
2009	MERN	Regional uranium potential study	Property area has low to moderate potential	EP200903	Trépanier 2009
2012	MERN	Airborne magnetic survey, Manicouagan area		DP-2012-03	D'Amours & Intissar 2012
2013	MERN	Reconnaissance geologic mapping and prospecting over ~6,000 km ² between Manicouagan and Baie-Comeau	Discovery of REE occurrences on current Property	RG201403	Moukhsil et al 2014
2013	MERN	Summary of RG 2014 03 economic geology findings	Discovery of REE occurrences on current Property	PRO201302	Gosselin et al 2013
2014	Guy Barrette	Trenching and reconnaissance sampling at "Lucia" occurrence (13-FS-1202C)	Significant REE assays from channeled grab samples	GM69507	Barrette 2015
2017	Academic	Petrologic, geochemical study of REE-bearing pegmatites in Property area		-	Turlin et al 2017

6.3 Resources, Reserves and Production

The Lac Ducharme Property is at a early stage of exploration. There are no current mineral Resources or Reserves on the Project as defined in the Definition Standards on Mineral Resources and Mineral Reserves published by the Canadian Institute of Mines, Minerals and Petroleum (CIM) or any equivalent international code, nor has there been any past production from the Property.

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional and Local Geology

The Lac Ducharme Property lies within the Grenville Province, which forms the southeastern rim of the Canadian Shield and is its youngest component. The Grenville Province is exposed in a belt from the southern Labrador coast, along the St. Lawrence shore to the Lake Huron shore in southern Ontario. Its southern margin and its continuation further to the southwest are covered by later Paleozoic sedimentary units.

The Grenville Province is an orogen of early to mid Proterozoic age (approx. 1.6 Ga to 0.9 Ga) and can broadly be subdivided into a *parautochthonous belt* of highly deformed, migmatized derived from rocks of the neighboring, older Superior and Southern Provinces, and an *allochthonous belt* of gneiss, granitoids, and slightly younger gabbro and anorthosite complexes which are believed to represent an arc geodynamic environment accreted onto the rest of the craton, into which mafic to felsic intrusives were emplaced along normal fault structures following the subsidence of the orogenic plateau (Turlin et al 2017). Major crustal scale thrust faults divide these bodies: the Grenville Front forms the margin of the Grenville parautochthonous belt from the older components of the continent, while the Allochthon Boundary Thrust represents the contact between the two belts of the Grenville Province itself.

Gneisses of the allochthonous belt intruded by syn-tectonic mangerite and granitic batholiths dominate in the Lac Ducharme area; these include the granitoid-derived gneisses of the Hulot Complex and the sediment- derived gneisses of the Plus-Value Complex.

The Manicouagan impact structure lies 60 km north of the Lac Ducharme property, this is a 60 km-wide crater which is Triassic in age and is responsible for the ring shape of the Manicouagan reservoir.

7.2 Property Geology

The Lac Ducharme property has fallen under the area of several regional mapping programs, and the 13-FS-1202 and 13-TC-5072 outcrops were mapped in detail by

Turlin et al (2017). However, no detailed property-wide geologic mapping has yet taken place on the property (Figure 3, Figure 4, Figure 5, Figure 6).

It is known that the Property is traversed by a regional-scale fault which runs southwest through the eastern half of the Property. This fault runs along a trough between two areas of hills. The fault separates two granitoid bodies; the Castoreum pluton to the southeast (magnetite-porphyrific granite/monzonite) and the Bardoux 1 pluton to the northwest (garnet-bearing granite with zoned potassic feldspar phenocrysts). The plutons date to 1393 ± 8 Ma and 1487.6 ± 6.8 Ma respectively (Moukhsil et al 2014). This divide is easily visible in regional magnetic data which shows considerably more magnetic relief in the Castoreum pluton than the Bardoux 1 pluton (Figure 7, Figure 8, Figure 9, Figure 10). SIGEOM mentions that dykes of pegmatite are found in both plutons. A later fault with right-handed movement runs north to northeastward through the western edge of the property, displacing the contact between the plutons.

The southern extreme of the property covers the end of a wedge of quartzite- and marble- derived gneisses of the Plus-Value Complex, which are the oldest lithologies in the Property area (Turlin et al 2017).

The northern extreme of the property covers part of a gabbro or gabbro-norite lens, part of a string of bodies oriented east-northeast (the Louis Suite).

Pegmatite dykes at both of the known mineralized sites on the Property form swarms with a steep southward dip and a rough NE/SW-orientation. This orientation appears to be shared by the unnamed regional-scale fault, and there may be a fault-related structural control on the emplacement of the dykes. Individual dykes are 10-100 cm thick. The dykes consist predominantly of quartz, potassic feldspar, plagioclase and biotite and exhibit localized grain size banding and zoning varied texture crystallization, magmatic brecciation and quartz chambers. Based on their distinctive geochemistry (LREE enrichment, high Al/Na+Ca+K ratio) they are believed to derive not from granitoids but from the partial melting of metasediments (Turlin et al 2017). Turlin et al (2019) suggest that the pegmatites in the Lac Ducharme area (and, by extension, the LREE mineralization) could be derived from sedimentary units of the Parautochthonous belt, which may lie below the Allochthonous belt.

Mineralization

Rare-earth element mineralization at Lac Ducharme is presently known in two locations:

13-FS-1202 ("Lucia"); discovered by Moukhsil et al (2014) and revisited and confirmed by Barrette (2015; sample Lucia 1 as presented in Table 5)

13-TC-5072; discovered by Moukhsil et al (2014)

Mineralization consists of allanite phenocrysts of 1 cm or more diameter and appears to be most prevalent in areas of pegmatite with local complexities such as banded, brecciated or harristic textures. Mineralogically, the presence of REE carrier phases is associated with a higher concentration of biotite phenocrysts. Also in both cases, REE mineralization is skewed towards the lighter rare earth elements (LREEs). In both cases mineralization is hosted by pegmatite dykes. SIGEOM mapping and the Lac Okaopéo map presented in Moukhsil et al (2014) imply that both pegmatites are hosted by the Bardoux 1 granite-monzonite pluton, whereas Turlin et al (2017) states that 13-FS-1202 is within the Castoreum granite.

Sampling has been upgraded in 2022 from opportunistic grabs to radiometric prospection based on thorium to cover among other targets. The pegmatite field was covered over an area of about 2,500 m². The grade distribution, thickness and lateral extent of the mineralization is yet to be ascertained at either location.

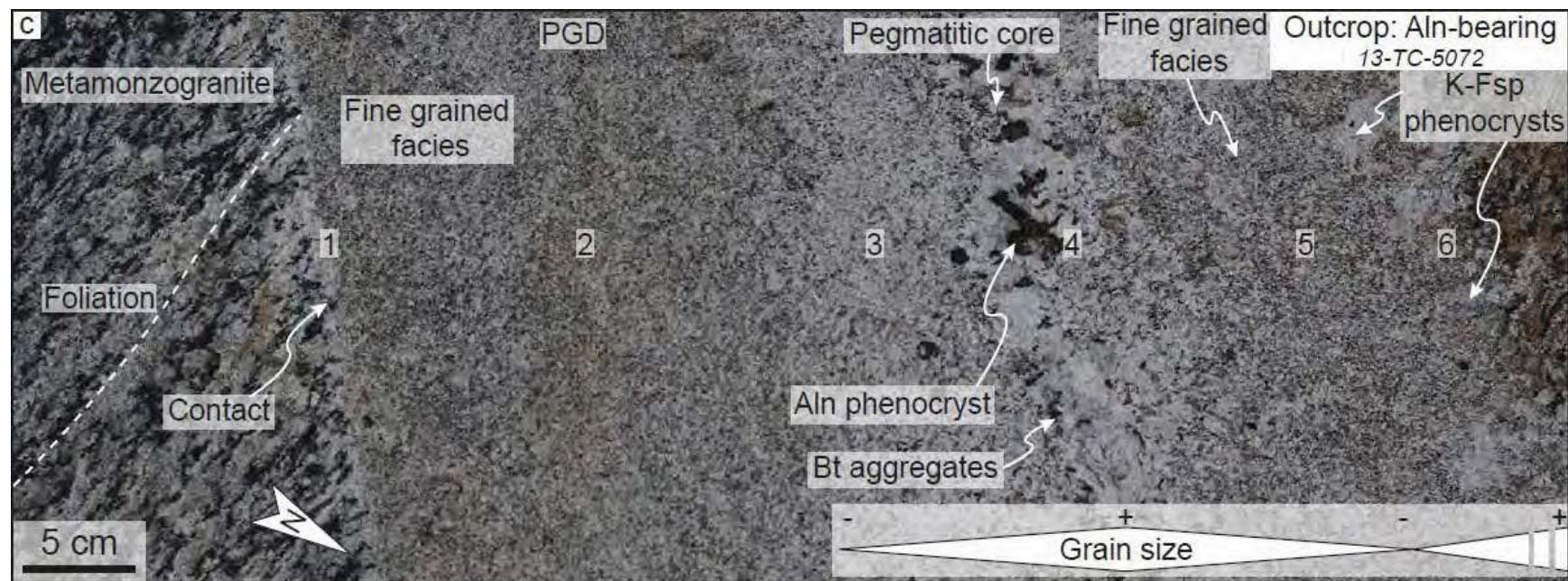


Figure 3 - Field photo of pegmatite at the 13-TC-5072 location. Showing zonation and allanite ("Aln") mineralization. From Turlin et al (2017)



Figure 4 - Outcrop cleaning of the "Lucia" showing, May 2021 situation.



Lucia anomalie MRN = #1 19 U 510162 5601234
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Figure 5 - Photo of outcrop and sampling location for the "Lucia" occurrence (13-FS-1202). From Barrette 2015



Figure 6 - Allanite clusters in the Lucia pegmatite showing evidence of metamictization induced by thorium concentrations

Table 5 - Assay Results from Gosselin et al (2013) and Barratte (2015)

Sample	Ref	Sc	Y	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Total REE	Th
13-FS-1202C	PRO201302	-	-	15,300	29,400	-	11,000	-	-	-	-	-	--	-	-	-	-	55,700	2,800
Lucia 1	GM69507	9	158	3,510	7,120	792	2,640	348	7.67	154	15.05	56.4	7.37	13.78	1.38	6.7	0.88	14,840.23	770
Lucia 22 (522)	GM69507	4	131	1,380	2,710	297	978	130	4.02	64.9	7.07	31.4	5.21	12.35	1.59	9.21	1.48	5,767.23	216
13-TC-5072B	PRO201302	-	-	1,330	2,380	-	788	-	-	-	-	-	-	-	-	-	-	4,498	-
Lucia 19 (519)	GM69507	5	29	702	1,385	146	489	60	2.48	25.5	2.36	9.26	1.2	2.9	0.36	2.15	0.34	2,862.55	120
Lucia 20 (520)	GM69507	7	124.5	623	1,235	136.5	486	74.8	4.42	47.4	5.67	27.7	4.72	11.15	1.42	7.34	1	2,797.62	187.5
Lucia 10 (510)	GM69507	2	30.9	644	1,290	134	448	54.9	3	24.4	2.34	9.15	1.3	2.91	0.36	2.42	0.39	2,650.07	120
Lucia 12 (512)	GM69507	1	21.8	519	1,070	110	363	47	2.13	19.85	1.97	6.93	0.97	2.11	0.26	1.75	0.26	2,168.03	101.5
Lucia 15 (515)	GM69507	4	24.1	473	1,070	101.5	343	44.6	2.47	19.1	2.04	7.44	1.02	2.58	0.35	2.28	0.39	2,097.87	105
Lucia 7 (507)	GM69507	10	49.7	415	842	92.3	315	41.8	2.08	20.2	2.39	11.3	1.91	4.9	0.67	4.19	0.66	1,814.1	158.5
Lucia 18 (518)	GM69507	2	19.8	429	852	91.1	311	40.3	1.83	17.8	1.75	6.54	0.89	1.91	0.24	1.37	0.25	1,777.78	77.3
Lucia 16 (516)	GM69507	3	39	378	726	77.4	266	36.6	2.83	19.75	2.22	10.4	1.56	3.54	0.4	2.11	0.29	1,569.1	126
Lucia 2	GM69507	5	41.4	305	536	56.7	191	26.1	2.05	13.55	1.61	8.49	1.59	3.9	0.49	2.66	0.38	1,195.92	81.8

All available data for samples with >1000ppm total REEs shown. All values are in ppm. Thorium values are also presented. All samples above were taken from the 13-FS-1202 occurrence or its immediate area, save for sample 13-TC-5072B.

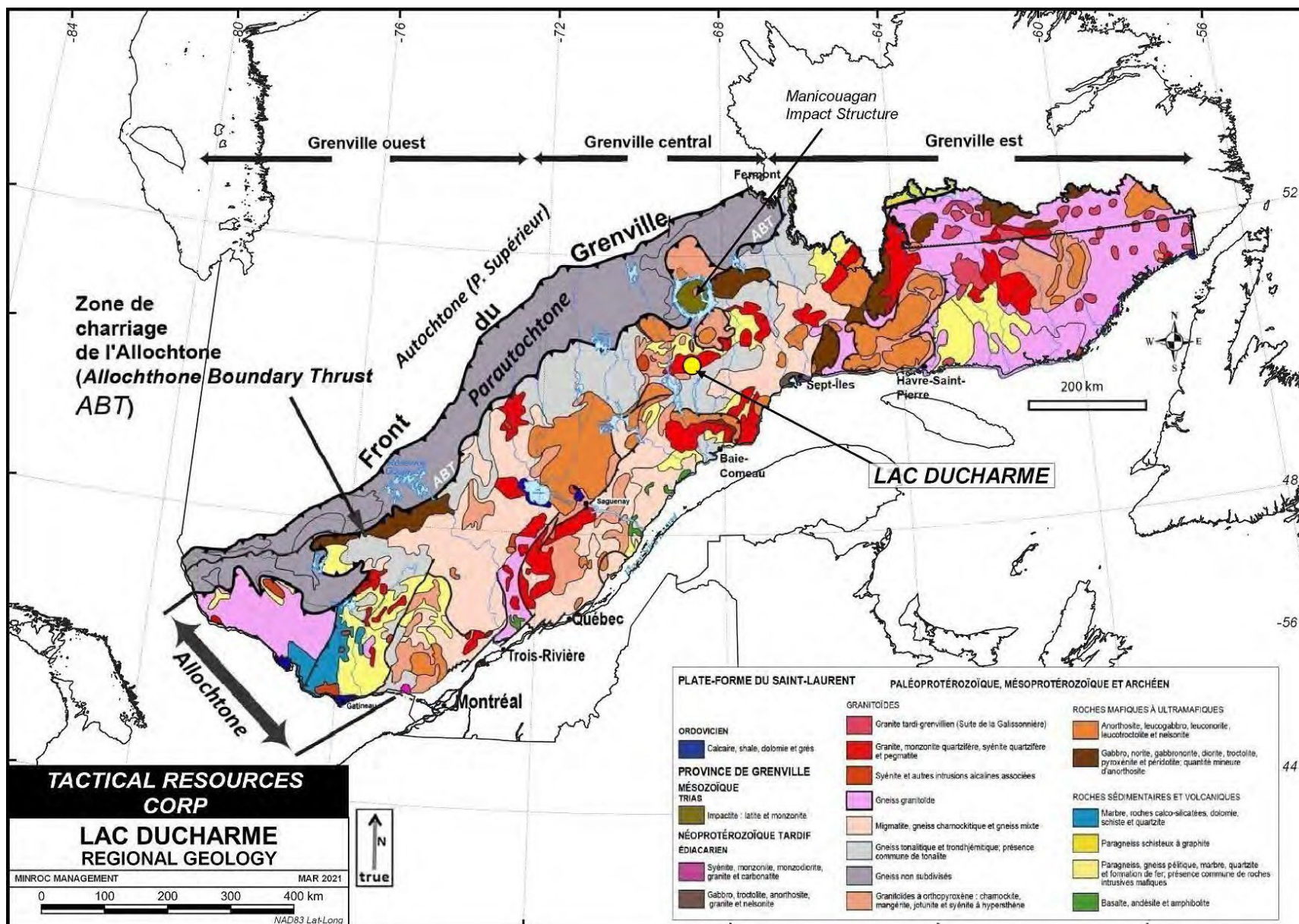
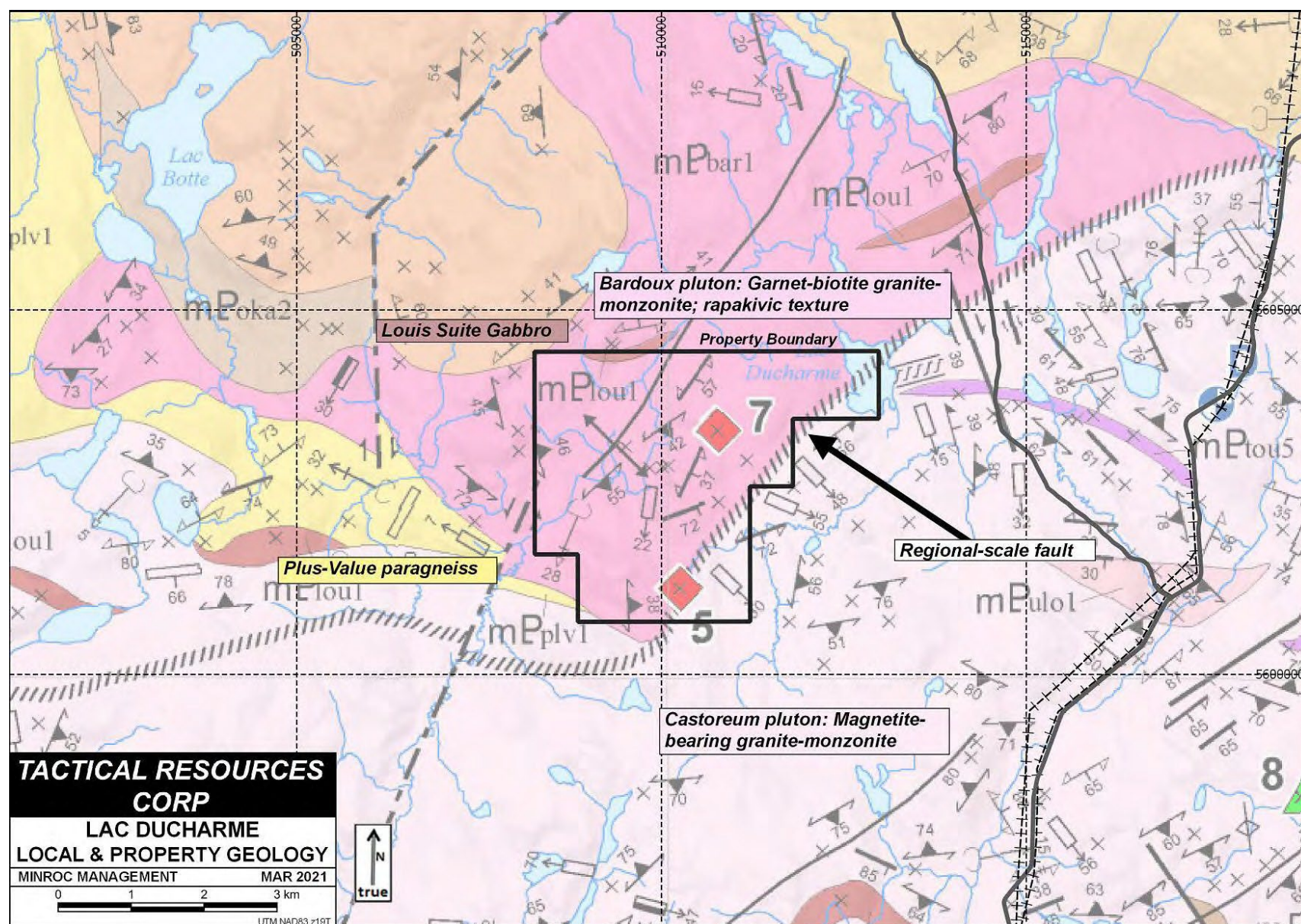


Figure 7 - Regional Geology (based on a map of the Grenville Province in Québec; SIGEOM, 2018)



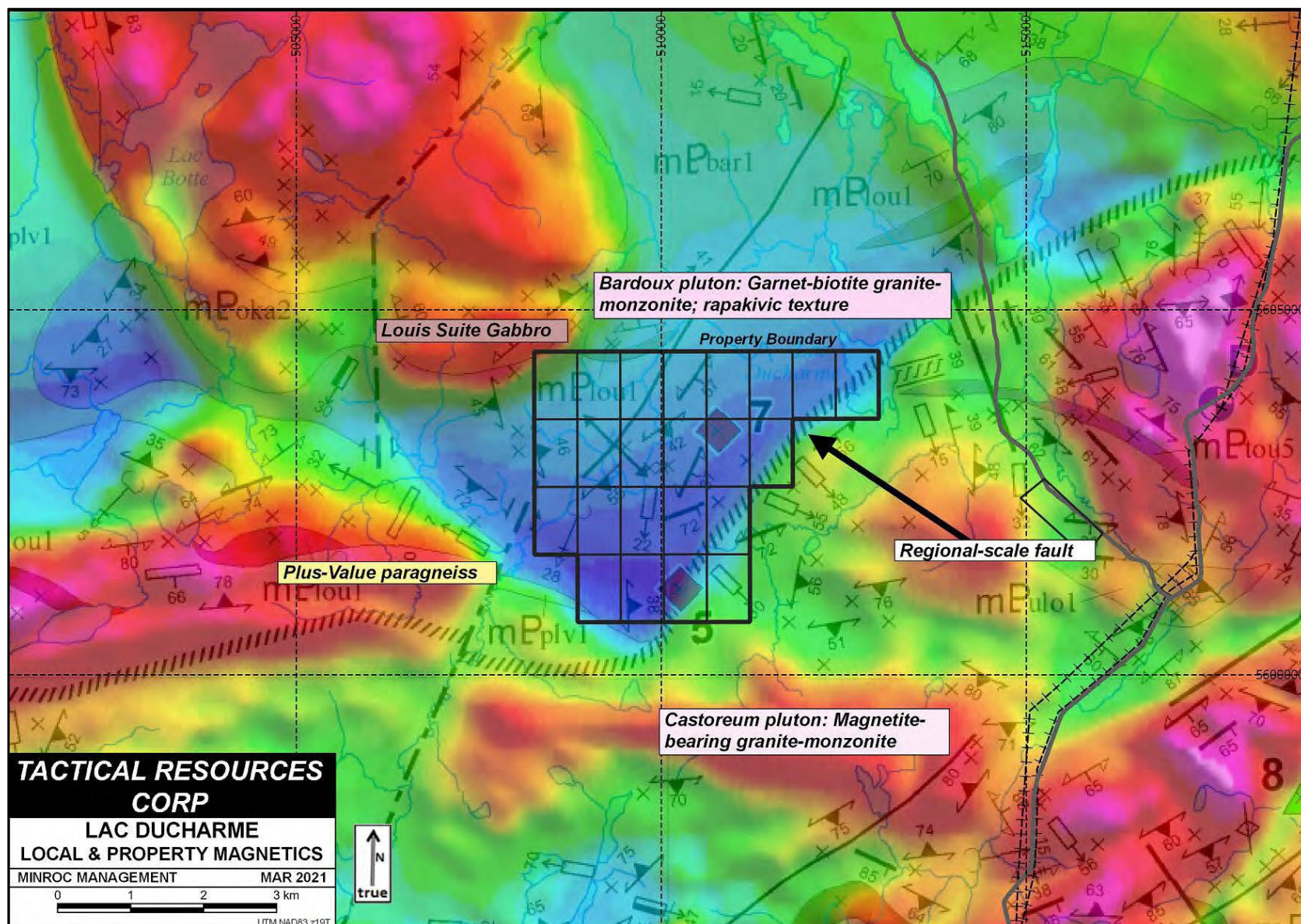


Figure 9 - Local and Property magnetic data from SIGEOM, compiled from DP-2006-01 and DP-2012-03 surveys



8.0 DEPOSIT TYPES

It is presumed that economic REE mineralization, should it exist on the Lac Ducharme property, will take the form of a pegmatite hosted deposit. Pegmatite deposits can be significant sources of molybdenum, lithium, uranium, tantalum, niobium and rare-earth elements. They are also major sources of industrial minerals such as muscovite, fluorite and feldspar. Prominent granitic REE deposit examples in Canada in comparable context as Lac Ducharme area include the Strange Lake REE deposit in the Torngat Mountains in Labrador, the Fraser Lakes B uranium-REE deposit in Saskatchewan and the Thor Lake deposits in Northwest Territories, now developed by Cheetah Resources as the Nechalacho Mine.

Other pegmatite-hosted deposits in similar geological environment in central and eastern Canada include, the past-producing uranium pegmatites of the Bancroft area, Grenville Province, Ontario and the Lacorne lithium bearing pegmatite field sitting in the Abitibi Greenstone Belt, Québec. Worldwide, the abundance and variety of different rare metals bearing pegmatite documented worldwide was the object of inventory and classification by Ercit, T.S (2005).

To date there has been little significant commercial REE production from pegmatitic REE deposits *sensu stricto*. It is worth noting that REE-bearing pegmatites were generally not the targets of mineral exploration efforts until the 21st Century when issues such as battery technology and supply chain security for Western nations came to prominence. In cases of more advance exploration project or producing mines, REE bearing minerals concentrations are hosted preferably in intracratonic intrusive complex, taking the form of dissemination in particular intrusive phases or concentrated in layers, veins or pegmatites. Host magmatism evolved belonging to the alkaline field (Mitchell, R.H., 1996)

In terms of setting, granitic pegmatites take the forms of veins or dykes, typically in swarms or parallel sheets, and are generally found in orogens and date to the later stage of orogenesis. Pegmatite dykes may be found within the granite from which they are generally fractionated from, or they are intruded into country rocks up to a distance of several kilometres. The “fertile” granites from which they are derived and with which they are spatially associated are generally enriched in alkalis and large-ion incompatible elements. Zoning is typically strong within individual dykes and veins (see Figure 11). On a regional scale, lateral zoning of the more mobile elements is common (see Figure 12), with minerals such as beryl and topaz more common towards (or within) the source granite, and lithium- and REE-bearing minerals found in the more distal portions of the dykes.

Though pegmatites are generally derived from fractionation of granites, some are considered to have a regional metamorphic origin and are produced from partial melting of large volumes of crust. A significant proportion of the pegmatites in the Grenville Province are suspected of having this origin (Ercit 2005) (Figure 11, Figure 12).

Pegmatites were classified into five categories by Černý and Ercit (2005) based on mineral assemblage and inferred environments of emplacement: *Abyssal*, *Muscovite*, *Muscovite-Rare-Element*, *Rare-Element* and *Miarolitic*. A second classification scheme is provided based on geochemistry: the *NYF* (Nb, Y, F, REEs, U, Th-enriched) and *LCT* (Li, Cs, Ta, Be, Sn, Nb-enriched) families. The Lac Ducharme pegmatites do not easily fit into any of these categories.

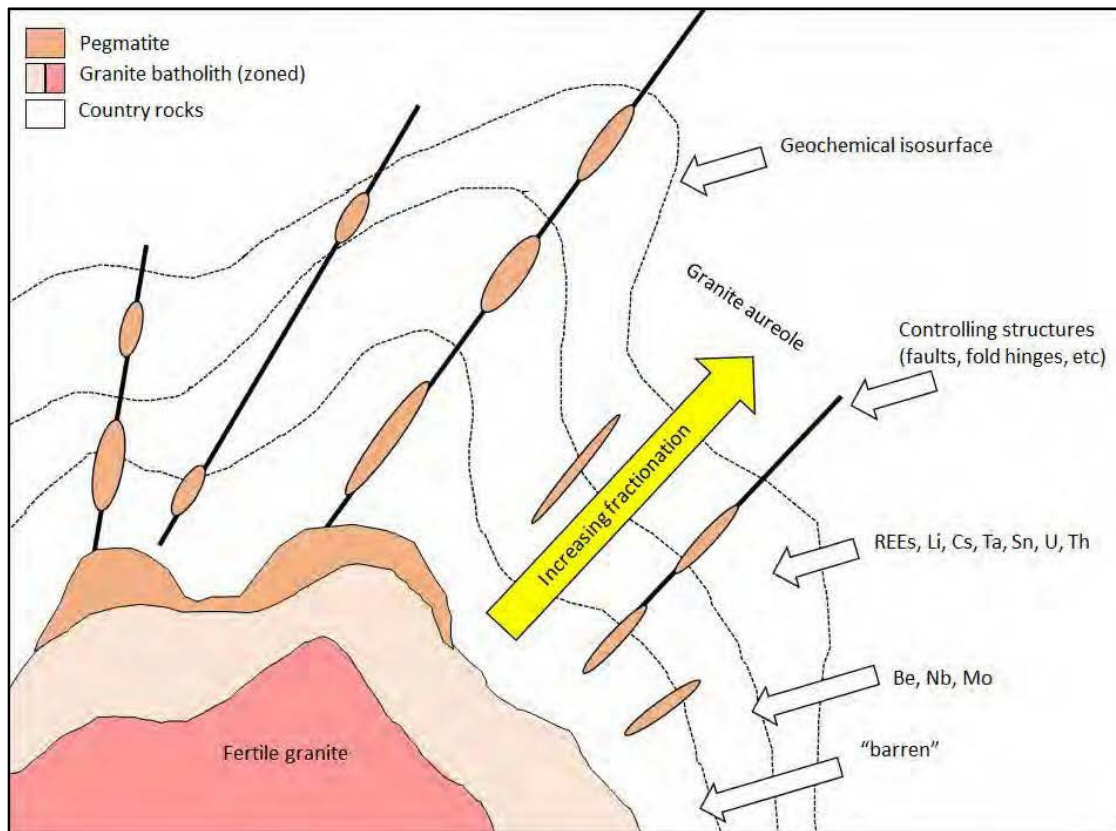


Figure 11 - Schematic of a field of granitic pegmatites, showing patterns of geochemical zonation. The field of view can be in the order of hundreds of metres to ten kilometres. Based on Černý (1989)

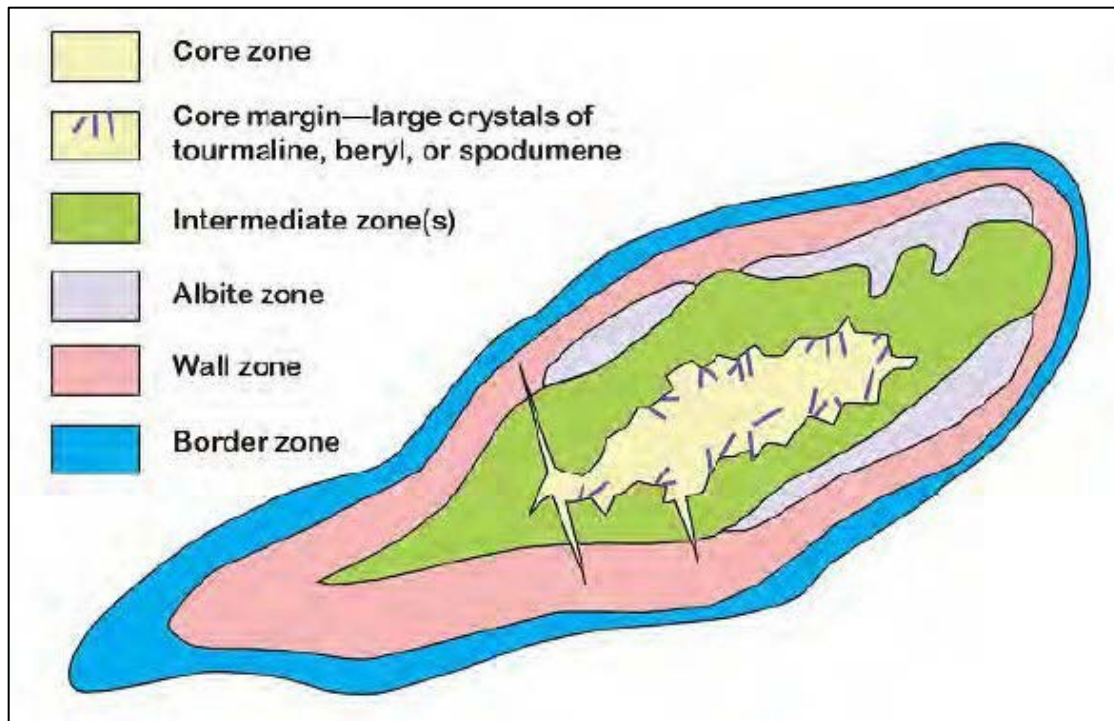


Figure 12 - Typical zonation within a pegmatite, from Bradley & McCauley (2016)

Other mineral deposit types are known, or considered possible, in the Grenville, and mineralization of these styles may be present on the Property:

- **IOCG (Iron Oxide Copper Gold) deposits:** These are a diverse class of mineral deposits but are typically hydrothermal systems broadly associated with magmatism and commonly hosted by brecciated units. Alteration halos are generally based around Na and Ca alteration and can be very large. They are generally Proterozoic in age and situated close to the margins of Archean cratons (Groves et al 2010). Major examples include the Olympic Dam Cu-Au-U mine in South Australia. The Kwyjibo REE-Cu-W deposit, and the Kintavar Au-Cu occurrences, both in the Grenville of Québec, are interpreted as IOCG deposits.
- **Greisen/skarn-type deposits:** Late-stage magmatic fluids can react with their host intrusives (greisen) and adjacent units (skarn), forming zones of metasomatism, often controlled by contacts or structural features. They are particularly common in association with highly alkaline magmatism and/or magmatic contacts with carbonaceous sediments. Greisen and skarn type deposits are significant sources of Sn, W and Mo and minor sources of REEs and U. An example from the Grenville of Québec is the REE-Mo mineralization on the Ceres property near Fort-Coulongue in the Outaouais region (Cloutier & Kleinboeck 2012).
- **Ni-Cu-PGE deposits:** While unlikely, the potential for the Lac Ducharme property to host magmatic massive sulphide deposits should be considered, given the presence of minor ultramafic bodies with known Ni and PGE mineralization in the region. These are primary sulphide deposits which form pseudo-stratigraphic horizons of massive, net-textured, stringer and/or disseminated sulphide within voluminous layered intrusive bodies, deposited as a result of their fractional crystallization. These

deposits are major sources of copper, nickel, titanium, vanadium, chromium and platinum-group elements. Major examples of MMS deposits from Québec include the the Cape Smith belt in Nunavik which hosts the Raglan nickel mine amongst other deposits.

- *Granite-hosted uranium deposits:* Uranium mineralization can take the form of broad, low-grade disseminations of uraninite and betafite in leucogranites. The classic example, Rössing in Namibia, is hypothesized to have formed through partial melting of voluminous granites and the calcareous, uranium-bearing host sedimentary sequence, resulting in the emplacement of bodies of uranium- enriched leucogranites. Leucogranite emplacement is controlled by folding in the sedimentary sequence and the presence of marble horizons, acting as a trap for late-stage fluids (Toens & Corner 1980).

9.0 EXPLORATION

Prospecting and sampling

Tactical Resources contracted Exploration Facilitation (“EFU”) supervised by Justin Rensby P.Geo. (OGQ #2137) to complete a first prospecting and sampling program on the property. Works were conducted from September 4th to September 12th, 2021, by a team of five supported by specific equipment adapted to field conditions:

- Two handheld Bruker RS-120 scintillometers
- A handheld Bruker RS-125 XRF spectrometer
- One portable drill

A site visit was done by the author preliminary to exploration works described under History (section 6.2).

The prospecting program covered the two known showings and some areas in between. A handheld radio detection device was used to cover ground first and identify shallow occurrences of radioactivity emitted by the thorium associated with REE. The XRF portable spectrometer was then used to evaluate the content of thorium. Twenty-nine (29) samples were taken using this prospecting approach. Field samples consisting typically of 2 to 4 kg of broken rocks extracted by hand or with the help of a backpack drill represent restrained surface. Also, during the same program thirteen (13) core samples were collected using a backpack drill sampling (Rensby J., 2021).

The average total content of REE for twenty-nine (29) surface rock samples and thirteen (13) core samples are respectively of 0.3489% and 0.1317%. In that last case, four samples returned assays higher than 0.2%. Samples were treated by alkaline fusion and analyzed by ICP-OES or ICP-MS for major and trace elements. The host rock analyzed described and described visually foreach sample, correspond to pegmatite dykes. The location as the assay details have been appended to the Report (Section 28).

Following map (Figure 13) illustrates the sampling coverage centered on the 13-FS-1202 REE occurrence “Lucia”. According to information submitted by “EFU” for assessment report to Tactical,

The author considers that the field approach and methods chosen by EFU are consistent for a prospecting phase targeting firstly the identification of mineralization. However, this type of “cherry picking” approach was in no way a representative evaluation of REE grade in a pegmatite dyke.

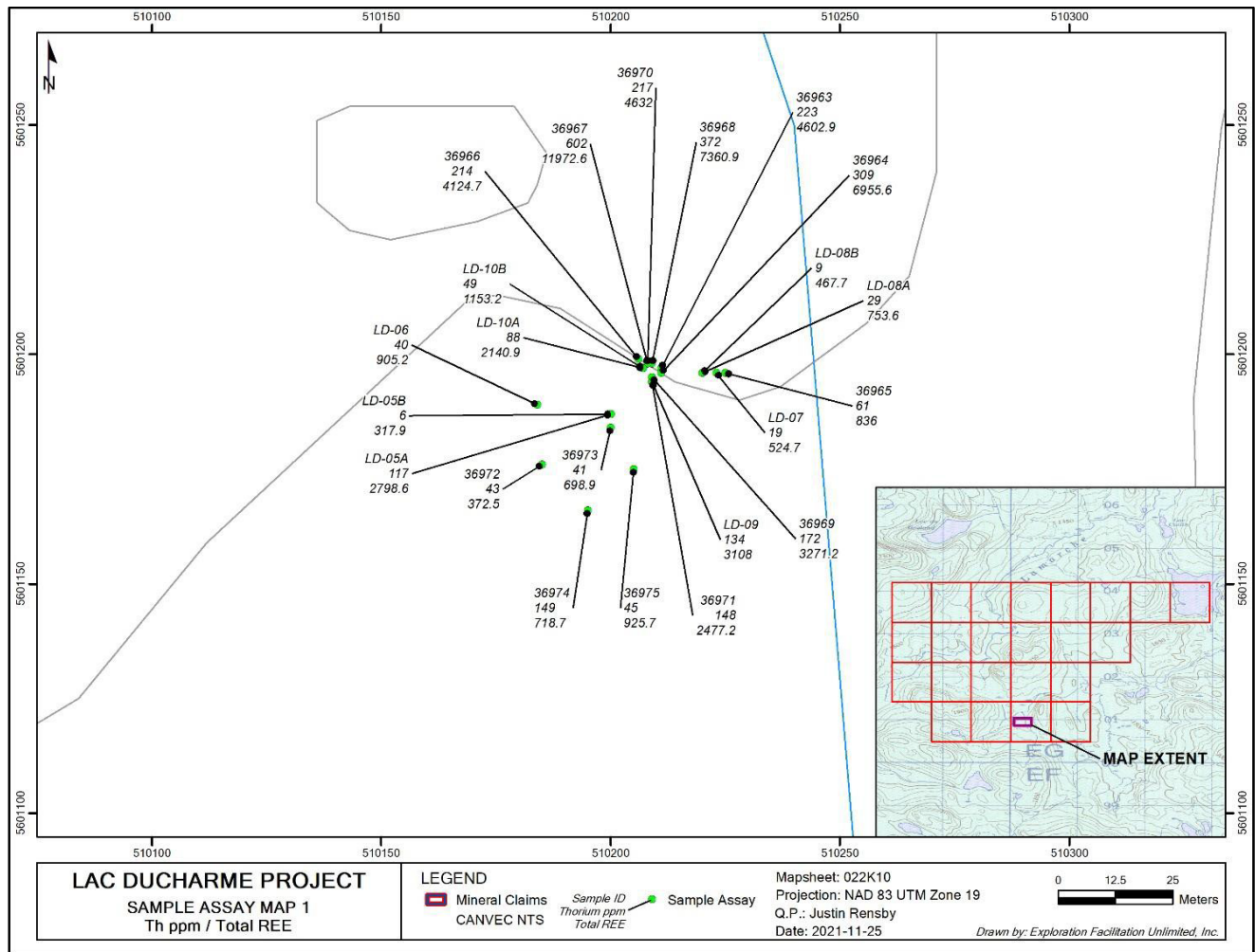


Figure 13 - Samples position with REE results from 13-FS-1202 Lucia showing. From Rensby, J., 2021.

Geophysics

A ground magnetic and radiometric survey report was produced by Jean Hubert eng. (OIQ#22848) between May and July 2022 on behalf of Tactical Resources. The survey covered 50.2 line-kilometers with magnetometry. On this occasion, 894 radiometric measurements were taken (Figure 14, Figure 15).

The survey used East-West walking path directed by GPS. A spacing of 100 metres was maintained between lines with a maximum accepted deviation of 10 metres related to this field approach. Measurements of the magnetic field were obtained with a GSM-19V Overhauser magnetometer with a sensitivity of 0.01 nanoTesla. The magnetic diurnal variations were monitored with a second GSM-19 installed as a base station recording the magnetic field on a continuous basis during the survey except for the day of May 27. Cited from Hubert J. (2022) about the correction applied on the dataset using the diurnal variation of the magnetic field intensity at the base station:

"It varies between 54034 nT to 54137 nT with a mean value of 54084 nT and a standard

deviation 18.16 nT. A value of 54080 nT was attributed to the base station, so the diurnal correction varies between -57.96nT and 45.07 nT.

On May 27, the base station clock was accidentally reset, losing synchronization with the roving magnetometers. By comparing the magnetic recording with those of the magnetic observatories of Canada, St John's and Ottawa, simultaneous events made it possible to correct quite accurately the recording of the base station."

Also, other adjustments and corrections were applied to the dataset to ensure that further treatment were not biased by local errors.

- Select measures were removed or replaced by linear interpolation in case of erroneous readings
- Erroneous magnetic values, low signals or local peaks were removed. Afterward, a light filtering was applied to line profiles.

Data interpolation and treatment were presented using a 60 degrees azimuth grid following the main geological strike. The first and second derivative were calculated from the total magnetic intensity along lines profiles.

The radiometric survey was produced synchronously with the magnetic survey using a RS-125 spectrometer supplies by Radiation Solutions Inc. of Mississauga, Ontario. This instrument was set for total count measurement only for 15 seconds counting time. A total of 894 measurements were taken following the same walking path as the magnetic survey. Any detail was provided concerning QAQC procedure done during the survey and the preparation of the report. The report's author warned that the signal obtained under the form of counts per second (cps) is representative only if the spectrometer is in contact with the surface to analyze.

The 2022 ground survey report documented the limitation and corrections of a GPS supported ground magnetic survey according to the industry best practices. Appropriate methods were used to correct a weak percentage of inaccurate data inherent to this type of survey. Practically, the gridded corrected magnetic intensity signal highlighted the strong low magnetic signature of the unnamed regional fault separating the Bardoux and Castoréum magmatic suites. On the other hand, derivative calculated remained too noisy to define any internal magmatic signature or distinctive structures.

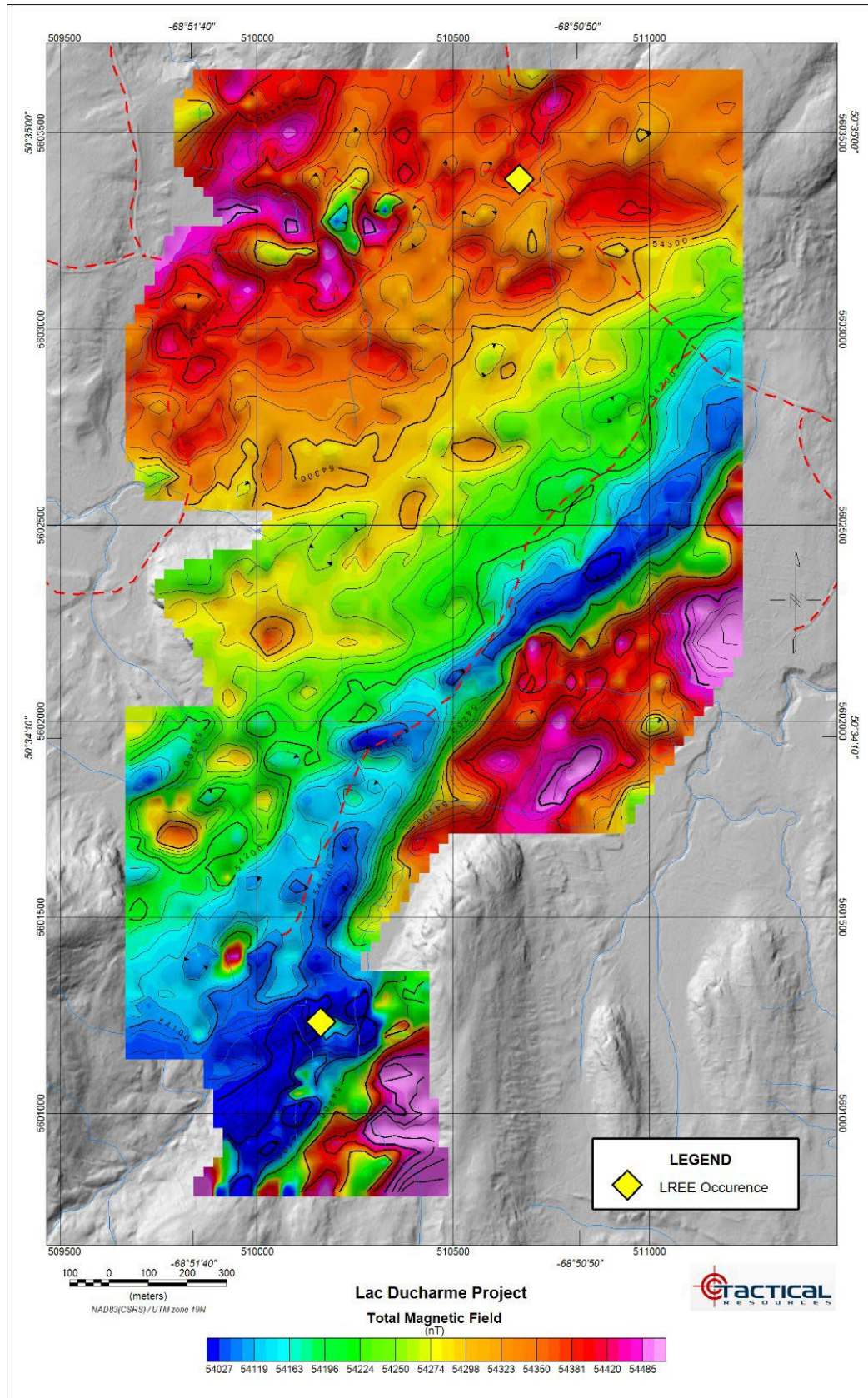


Figure 14 - Lac Ducharme project, Total Magnetic Field. From Hubert J., 2022.

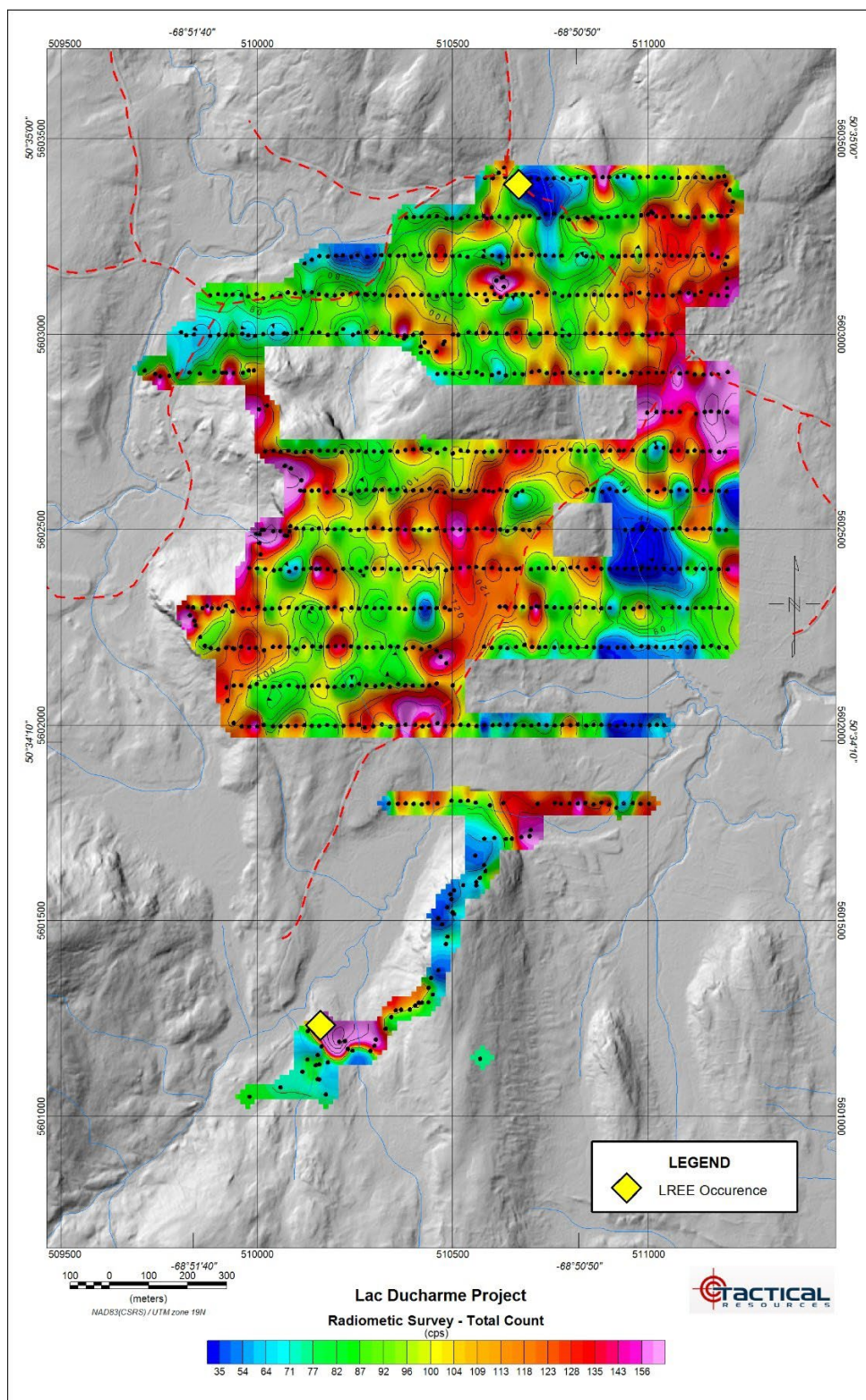


Figure 15 - Lac Ducharme project, Radiometric survey, Total Count. From Hubert J., 2022.

10.0 DRILLING

In September 2021, the two known showings on the property were also sampled using a Shaw portable drill using 25 mm external diameter rods. Holes depth varied between 0.41 and 2.24m for samples length varying between 0.25 and 1.85m for an average of 0.91 metres. Drill sites were treated as punctual sampling site without any technical parameter compiled during works. According to rock description, holes were collared at close distance from observable pegmatite dykes and the sampling mostly covered the dyke length intercepted.

Otherwise, no standard exploration drilling has taken place on the Lac Ducharme Property. The September 2021 backpack drilling must be considered as an alternative sampling in the prospecting phase.

11.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

Tactical has produced so far one sampling program related to one Certificate of Analysis produced by Actlabs and appended to the Report. However, considering that some of the previous assays were done in an academic context and brought relevant information concerning rock description and mineralogy, these results were reported and commented in this Report.

11.1 MERN Samples

The samples taken by Moukhsil et al formed part of an academic study but it can be presumed that industry standard practice was followed in the field, i.e. sample material was placed in plastic bags at the sampling site alongside unique identification tags and immediately sealed. Turlin et al (2017) state that samples were delivered to Activation Laboratories (Actlabs) of Hamilton, Ontario at which they were prepared by Li-metaborate or Li-tetraborate fusion and analyzed by ICP-AES and ICP-MS. Thin sections were analyzed using an electron microprobe at the GeoRessources Lab, Université de Lorraine, France.

Actlabs facilities conform to the requirements of the ISO/IEC 17025 Standard (General requirements for the competence of testing and calibration laboratories). Actlabs regularly takes part in proficiency testing. Further, Actlabs facilities also conform to CAN-P-1579 (Mineral Analysis/Geological Tests) as set out by the Standards Council of Canada. Actlabs is independent of all past and present interested parties.

Initial results obtained from the initial discovery of REE have not originating necessarily from a qualified professional. If that had been the case, any documentation allowed to ensure a chain of custody to samples and the QAQC procedure attached to samples.

11.2 Barrette 2015 Samples

Based on field photographs and sample descriptions, the Barrette (2015) samples were cut from stripped bedrock using diamond saws and removed with hand tools. Samples

were taken in and around the 13-FS-1202 occurrence wherever pegmatitic material was encountered or any other indicator of potentially economic mineralization, such as sulphide disseminations.

Samples were sealed in plastic bags alongside flagging tape on which unique sample numbers were written. Samples were delivered to ALS Minerals of Val-d'Or, Québec, where the samples were prepared. From here the samples were shipped internally by ALS to their Vancouver facility where they were assayed by "ME-MS81" lithium borate fusion with ICP-MS analysis for a "trace element" suite including the REEs, as well as "ME-4ACD81" four-acid digestion with ICP-AES analysis, for a suite of base and precious metals. The ALS assay certificate appends the Barrette (2015) report.

ALS typically runs internal QA/QC analyses alongside work orders including blanks, standards and duplicates, though this information is not documented in the Barrette (2015) report. ALS facilities conform to the requirements of the ISO/IEC 17025 Standard (General requirements for the competence of testing and calibration laboratories), and regularly take part in proficiency testing. Further, ALS facilities conform to CAN-P-1579 (Mineral Analysis/Geological Tests) as set out by the Standards Council of Canada. ALS is independent of all past and present interested parties.

The reader has to take notice that the sampling done in the course of prospecting program was done by the claims owner and was not supervised by an accredited professional. The site visit done afterward combined with the examination of documents indicated that the prospecting party acted in good faith using the methodology and the pro format required by the Province regulation in those cases. The pro forma assessment submitted by Barrette (2015) can be considered as part of a QAQC procedure under NI43-101.

11.3 Tactical "EFU" 2021 Samples

Field rock samples or core samples were given an individual number and collected in ore plastic bags. Bedrock samples and backpack drill samples collected in the field were described in basic detail. Each sample was labelled with its unique sample number and this number was also recorded on the GPS and in the notes. Sample bags were sealed using plastic zap straps/ cable ties before being removed from the field. The samples were delivered in one single batch. In addition to the lab's QA/QC program, as part of the submittal of samples to the lab two blanks and two standards were inserted into the sample stream. Two silica blanks and two OREAS 461 standards were used. They were inserted between collected samples in the sample stream.

Samples mineralogical composition is summarized on the field. Coordinates were taken with a handheld GPS. During the program, samples are stored on site in a locked trailer. Following base camp demobilization, samples were brought to Actlabs facility in Ancaster, Ontario. According to Rensby J., P.Geo: *"At no were the samples in possession of a third party. The samples were delivered in one single batch."* The submittal of samples included two blanks and two OREAS 461 standards were inserted in the samples stream. The forty-seven (47) samples submitted were assayed using an alkaline fusion by lithium metaborate and analyze by ICP-OES or ICP-MS (Optical Emission Spectrometry,

Inductively Coupled Plasma Mass Spectrometry) at Actlabs. the spectrum of major and trace elements was obtained. Detection limits used by Actlabs are generally of 0.1 ppm for most rare earth elements and of 0.05 ppm for praseodymium, europium, thulium and lutetium.

Actlabs runs internal QA/QC analyses alongside workorders including blanks, standards and duplicates as disclosed in Actlab Certificate of analysis A21-18542. Actlab Ancaster facility is conform to the requirements of the ISO/IEC 17025 Standard (General requirements for the competence of testing and calibration laboratories), and regularly take part in proficiency testing. Further, Actlab is conform to CAN-P-1579 (Mineral Analysis/Geological Tests) as set out by the Standards Council of Canada. Actlab is independent of all past and present interested parties.

11.4 Concluding Statements

The sampling procedures for the MERN and Barrette work are not well documented at the field level. But the author notes that, since the MERN studies were academic in nature, there would have been a significant emphasis on ensuring sample integrity and minimizing sample contamination. The fact that the Barrette results appear to confirm the MERN results counts towards the reliability of both sampling efforts.

In the author's opinion the sample preparation and security procedures at the field level, and the assay procedures at the laboratory level, are likely to have been conducted according to best practices. However, the lack of complete assay certificates prevents a quantitative assessment of the dataset.

The Tactical sampling exercise was done externally using an exploration firm with field expertise supervised by a professional geologist. Methods and approach were disclosed with sufficient details in such a way as to qualify the characteristics and limitation of sampling. It must be reinforcing that information and results disclosed as part of the technical report are based on a discreet sampling biased toward higher radioactivity level and inferred higher total rare earth content. However, the used of cored section of pegmatite dykes helped to obtain more representative samples across the mineralized structure.

In the author opinion, the professional in charge demonstrated a continuous chain of custody when moving samples from the field to the laboratory facility.

Materials were assayed using an appropriate method considering the refractory nature of REE minerals carriers to common multi-acid dissolution phase. However, some grade evaluation uncertainty remained attached to this samples chain considering the lack of knowledge about the distribution of rare earths elements in mineral assemblages and the generally coarse texture of pegmatite.

12.0 DATA VERIFICATION

12.1 Site Visit

The Property was visited by Martin Demers, P. Geo, of Minroc Management on the 5th May 2021. Both REE occurrences were visited by helicopter (Figure 16). At both locations, the geology matched what has been recorded by previous observers, and several historic sampling locations (typically short, 10-20 cm channel samples) could be identified at the “Lucia” occurrence, four of these sample locations could still be identified by their original sample number and matched their locations as recorded in the Barrette (2015) assessment report to within the accuracy of a handheld GPS device. No sample was taken during the exercise. The hard and smooth bedrock surface which characterize REE showing environment only allowed the manual extraction of small chips of rocks, in an insufficient amount of material to compose a sufficient sample for an analysis. Otherwise, representative sampling would have required the use of a gasoline powered circular diamond blade saw for an efficient sampling.

Table 6 - Identified MERN and Barrette Sample Locations

Site	Feature (Demers)	UTM E	UTM N	Summary (Demers)
13-FS-1202 (Lucia)	Lu1a	510187	5601232	Porphyric pegmatite contact with grey gneiss.
13-FS-1202 (Lucia)	Lu1b	510185	5601232	Porphyric pegmatite with magnetite - allanite (?) - oxide assemblage. One 0.2 m long historical channel sample (possibly either 521 or 522)
13-FS-1202 (Lucia)	Lu2a	510223	5601196	Eastern extremity of the main stripping, historical sample L516.
13-FS-1202 (Lucia)	Lu2b	510215	5601196	Historical Lucia REE occurrence under the form of biotite altered euxenite (?) like phase. 0.5 m X 0.5 m X 0.15 m historical excavation with sample L508 nearby.
13-FS-1202 (Lucia)	Lu2c	510198	5601181	Complex pegmatite dyke, position of historical sample L510.
13-FS-1202 (Lucia)	Lu2d	510198	5601183	Complex pegmatite dyke, position of historical sample L512.
13-TC-5072	Lu3	510669	5603377	Parallel pegmatite dykes swarm. Position of one 0.2 m historical channel sample.
13-TC-5072	Lu4	510685	5603352	Parallel pegmatite dykes swarm. Channel sample zone (0.5 m) in the immediate area.

12.1.1 13-FS-1202 (Lucia) Occurrence

Two stripped areas, about 30 m apart, were visited. These lie on either side of a forestry road, on a broad hill which is ideal for stripping. At the “Lu1a” and “Lu1b” points (as listed in Table 6), a 1-2 m thick pegmatite mass could be seen, consisting of quartz-perthite and

hosted by grey granodioritic gneiss. The dyke has a $\sim 60^\circ$ strike and subvertical dip. This is the dyke from which Barrette sample 22 was taken (listed as 522 in the field and in the Barrette (2015) assay certificate). The sample site may have been identified.

At the “Lu2c” and “Lu2d” locations, south of the road, another dyke is accompanied by a swarm of parallel quartz veins, with a total package width of approximately 2 m. At the “Lu2a” location this dyke transitions into a pegmatite-welded breccia of about 4 m total width. Sample tags found at all three locations closely match (to within 5 m) the anticipated sites for three Barrette samples.

A pit was found at the “Lu2b” site as listed above. Based on photographs and descriptions this appears to resemble the original LREE occurrence as described in the MERN and Barrette work although the location is about 65 m east-southeast from the UTM location reported in Gosselin et al (2013) and Moukhsil et al (2014). The author assumes that this is the original occurrence, based on the ample evidence of recent diamond sawing, and that the location matches a rough location for Lucia sample 1 shown on a GPS screenshot presented in Barrette (2015). Fresh rock exposures here showed a biotitic granite grading into pegmatite. Euxenite (a REE-Th-Nb titanium oxide) was tentatively identified.

12.1.2 13-TC-5072 Occurrence

A series of bedrock exposures along about 35 m of roadside. These expose a series of subparallel pegmatite veins of 20-30 cm width, a $\sim 70^\circ$ strike and steep dip, which have a cross-cutting relationship with the hosting monzonite gneiss. An irregular coarse granite mass was also noted intruding into the monzonite, which itself hosts irregular zones of coarser pegmatite. These veins and masses show chambered zonation with microcline and biotite surrounding quartz cores. The location of the original MERN sample (13-TC-5072) was likely identified (about 20 m southwest of the UTM provided in Gosselin et al, 2013). The overall layout of the outcrop and the observed geology closely matches that reported in Moukhsil et al (2014).

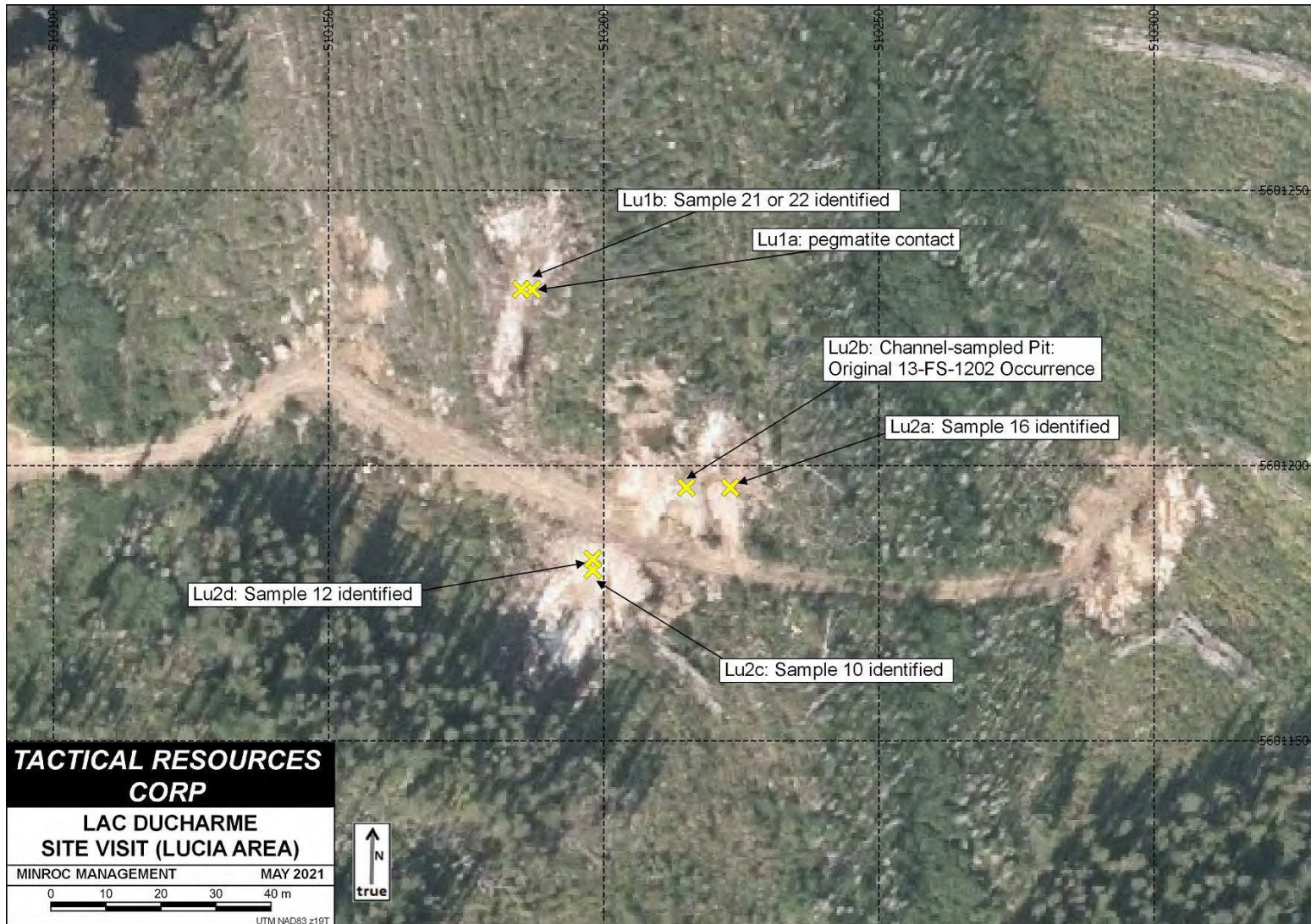


Figure 16 - Points of interest from Minroc site visit, Lucia area

12.2 Data Review

Relatively little exploration data pertains to the Lac Ducharme property at present. The author reviewed the Barrette (2015) assay certificate and checked the sample locations reported by Barrette against Barrette's own maps and aerial imagery. The Barrette data was also compared against the locations of outcrops and occurrences as reported in the MERN study.

As noted in Item 12.1, the MERN UTM's have some level of inaccuracy, and no UTM grid is supplied on the MERN geologic maps as presented in Moukhsil et al (2014). These factors, plus the presence of later stripping at the Lucia occurrence made it harder to confirm the original MERN work at that location. Nevertheless, the original sample location could be identified by photographs, and the remainder of the Bourque/Barrette sample locations were accurately recorded by GPS and relatively easy to identify in the field. The lack of later work at the 13-TC-5072 site made it easy to identify the MERN sampling location based on the layout and geology of the outcrops.

Results of the first sampling program performed by "EFU" on behalf of Tactical Resources were documented according to standards disclosure of an exploration works assessment report. The examination of samples location tables showed the concordance with maps displayed in the report. The concordance was also observed between field samples numbers and samples numbers listed in the laboratory certificate.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

No mineral processing or metallurgical testing have been conducted on any materials from the Lac Ducharme Property at this time.

14.0 MINERAL RESOURCE ESTIMATES

No Mineral Resource Estimates, as defined in the Definition Standards on Mineral Resources and Mineral Reserves published by the Canadian Institute of Mines, Minerals and Petroleum (CIM), have been calculated on any mineralization within the Lac Ducharme Property.

15.0 MINERAL RESERVE ESTIMATES

This section is not applicable to this Technical Report.

16.0 MINING METHODS

This section is not applicable to this Technical Report.

17.0 RECOVERY METHODS

This section is not applicable to this Technical Report.

18.0 PROJECT INFRASTRUCTURE

This section is not applicable to this Technical Report.

19.0 MARKET STUDIES AND CONTRACTS

This section is not applicable to this Technical Report.

20.0 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

This section is not applicable to this Technical Report.

21.0 CAPITAL AND OPERATING COSTS

This section is not applicable to this Technical Report.

22.0 ECONOMIC ANALYSES

This section is not applicable to this Technical Report.

23.0 ADJACENT PROPERTIES

Note: the author was not able to verify any of the information given in this section regarding any adjacent properties.

On The effective date of the Report, there is no bordering the property. Two claims located approximately 2km east of the property, owned by “Les Entreprises Jacques Dufour et Fils inc.” are superimposed by a mineral surface substance lease. Otherwise, the property is surrounded by two isolated claim blocks, located respectively at 12 km to the south and 8 km to the north of the Property. This last one being hold by Dean Boudrias, a prospector, and the southern one by Kode Mineral Exploration Ltd, an unlisted private company.

Using Examine, the government of Québec database grouping filed assessment reports, there is no works recorded in assessment report related to the Property area.

The nearest active property is located about 20km north of Lac Ducharme covering the Lac Paradis showing. Claims are 100% held by Murchison Minerals Ltd. (MUR.V). It covers a complex polymetallic mineralization injected by a REE bearing pegmatite (sigeom.mines.gouv.ca).

Information regarding adjacent properties is not necessarily indicative of the mineralization which is or may be present within the Lac Ducharme Property. The Author does not hold any interest in claims in the Property area or has never been in business relationship with other claims holders from this area.

24.0 OTHER RELEVANT DATA AND INFORMATION

To the author’s knowledge, all relevant information has been included in the other sections of this report.

25.0 INTERPRETATION AND CONCLUSIONS

The REE potential of the Lac Ducharme property can be better evaluated based on the first ground geophysical work done by Tactical Resources which combined radiometric measurements with magnetometry. First sampling done during a short program to document firstly known showing has confirmed the consistency of REE grade in pegmatite dykes, more specifically using short core sampled obtained with a portable diamond drill. Grade obtained in the range of 0.2% to 0.3% total REE justify to push further the investigation.

The total magnetic field signature highlighted the location of a possible mega shear controlling at the regional scale emplacement of REE bearing pegmatites at the regional scale. This unnamed structure crosscut the property over approximately 1.4 km following a North 50° trend with unknown influence. No visual geological observation has so far focused on explaining the anomaly. The southern 13-FS-1202 REE showing can be considered as part of the interpreted structure while the northern showing (13-TC-5072) is shifted to the north from the main structure by at least 200 metres.

The data treatments work presented by Jean Hubert, P.Eng., even produced with state-of-the-art approach, has not reached the level of detail required to interpret the structural pattern corresponding to REE bearing pegmatite field. The Author support Mr. Hubert conclusion that states that many factors interacted to decrease the quality and effectiveness of the survey for the intended objective.

The radiometric survey reached its objective by identifying strong signals above background in different areas of the propriety which are comparable with the 13-FS-1202 signature. High counts above 125 cps which can be related to barely outcropping mineralized pegmatite targets. The target that can be considered as the best anomaly recognized with this type of radiometric prospecting is located approximately at UTMnad83 coordinates 511100E – 5602750N in a broader lower range area possibly limited by a propriety wide intersection of fractures.

Radiometry remains an exploration method limited by the distance from the source rock, the gamma radiation decreasing in the air following a logarithmic scale. Also, snow and water mask the signal completely. Topographic data aerial photos indicate that many areas will be considered impermeable to spectrometric radio detection.

Once combined all element of information collected as part of the Report, it appears that the change of scale operated by the geophysics survey must be carried forward to identify a viable REE target on the property. To the Author opinion, the exploration for an extensive pegmatite dykes swarm can be represent an objective to reach based on available information.

Despite its relative isolation the Property is advantageously located close regional roads and structured by paths of forestry road.

However, the sector has never seen a high intensity level of exploration works. Other stakeholders, particularly concerned and affected Innu communities, will require the establishment of communication lines in the event of more intense exploration works. Also, the relative proximity of the Daniel Johnson dams and hydroelectric plans could require some authorization to eventually undertake excavation works with explosives or to fly over.

Table 7 summarizes the risks and opportunities related to the Lac Ducharme Property.

Table 7 - Risks and Opportunities to the Lac Ducharme Property

Risk	Potential Impact	Possible Mitigation
Poor social acceptability	Difficulty in undertaking work on the Property or enhancing its value	Maintain good relationships with Nitassinan Innu community as well as local hunters, trappers and other local stakeholders
Environmental Issues	Permits to complete part or all of work programs (e.g. drilling) may be denied. Issues may arise re disturbance to the Experimental Forestry Area	Minimize potential environmental impact at all stages of exploration planning and execution (e.g. area and intensity of surface disturbance). Establish contact with the MFFP regarding potential activities close to the forestry area
Opportunity	Potential Impact	Explanation
Successful exploration results	Value of Property enhanced	Discovery of an extensive REE bearing pegmatite field.
Successful exploration in region	Value of Property enhanced	Successful exploration by third parties on nearby projects may increase market interest in the Property

26.0 RECOMMENDATIONS

The author recommends that Tactical Resources undertake a phase of preparatory works before considering drilling any target. The proposed program (Table 8) can be split in two phases and described as following:

Phase 1

The program is in continuity with the works undertaken by Tactical over the past two years which includes the first step toward a geophysical coverage of the property. Experience showed that the quality of “walking” magnetometry could present quality issues in case of post treatment like the calculation of vertical derivative of gradient. The measurement of gamma ray on stations is in our opinion the main exploration tool to promote to detect REE bearing pegmatite targets considering the association with thorium. Handheld scintillometer and XRF spectrometers should be employed in the field alongside the mapping and sampling efforts. Ground radiometric data will provide a finer grain of radiometric detail than the airborne data and will also permit correlations to be drawn

between anomalies in the airborne data and outcrops on the field scale.

At the current level of exploration progress using hundred metres line spacing, six different areas of interest were highlighted with cps counts above 125 which include the 13-FS-1202 showings.

Prospecting and sampling works should intend to cover primarily those newly identify target and extend and densify the ground radiometric survey where higher counts are identified. The geology and geophysics signatures of prioritized sectors will have to be documented more in depth to accelerate discovery rate.

It is recommended to concentrate efforts on best anomalies with the support of a small size excavator for digging one to two meters deep pits in the search for frost heaves blocks or outcrops in high radiometric counts areas. This type of approach can be regarded as realistic with the low-density forest conditions generally observed. In all times ground conditions will conditioned the application of this approach. Samples should be taken routinely of all lithologies and submitted for whole- rock and trace element analysis to clarify the lithologies and ascertain the level of “fertility” for REE mineralization. The author recommends an assay method that incorporates a strong digestion method such as lithium borate fusion in order to ensure digestion of as much silicate material as possible, or the use of Neutron Activation (INAA) which avoid the uncertainty on the level of REE solubilization.

It worth noting that permit must be acquired from the MFFP prior to cutting of any commercial tree. The access to the ground of tracked machinery of any kind has also to be addressed with authorities beforehand.

Geological mapping with an emphasis on structures and pegmatites veins could be undertaken in conjunction with detailed magnetic survey using a maximum line spacing of 25 metres and different line direction depending on geological features to highlight. The ground approach is favored considering its simplicity of implementation and despite possible higher rate of errors originating from human sources. The approach is better able to record short waves variations of the magnetic field associated with discreet and shallow geological contrasts. A close collaboration with a geophysicist should helps to optimize each grid and solve quality control issues continuously. The use of cut lines should improve the quality of the survey.

Total of four weeks of works is proposed for an approximated cost of \$150,000 combining split between sampling works and the coverage of 2 500m X 500m grids at 50 metres spacing with line cutting and magnetometry.

Phase 2

Works proposed for Phase 2 will have the objective to clear and observed mineralized structures. Stripping and channeling are proposed, but dependent of success obtained with phase 1. The exact nature of the trenching will depend on the findings of Phase 1 as well as the terrain, logistical constraints and any geologic observations from the first few days of Phase 2, all depending on which areas are considered priority for follow-up. Targets from Phase 2 may include strike extensions of the known pegmatite occurrences, new surface

discoveries of pegmatite, and/or geophysically- selected targets from Phase 1. Stripped areas can be washed with a firefighting pump prior to detailed mapping and sampling.

Pegmatite dykes or other notable zones of potential mineralization should be channel-sampled and/or bulk-sampled to gain a better understanding of the distribution of any mineralization present. Channel sampling should utilize double channeling or some similar adaptation to extract bigger samples and accommodate nugget or cluster affects which characterize REE pegmatite textures. Reaching that point, geological mapping and minerals identification will be important works to advance with exploration works. The size of samples submitted, as the size of sub-samples analyzed will take more importance when considering working with samples dimensions. A detailed QAQC program which include field duplicates, lab preparation duplicates and the preparation of larger samples will be required.

A permit must be acquired from the (MFFP) prior to cutting of any commercial trees, to prepare accesses or strip outcrops.

Coming to this stage, the acquisition of high precision aerial photos or satellite images As part of Phase 2, the Author recommends a property-scale drone survey to capture detailed aerial photography of the property. This could take place prior, during or after the Phase 2 trenching. In either case, aerial photography is of significant value in trenching and stripping programs, particularly when large areas of bedrock are washed. It should also help to identify and trace controlling structures in REE showing areas.

It could be misleading to extrapolate any follow up on unexciting results and exploration plan. However, the involvement of a complete stripping and sampling team in the property context could represent a budgetary cost of \$30,000/week of operation based on the author experience in similar conditions.

The building of a solid relation with stakeholders on the territory and politically is require in environment where mineral exploration is a new activity in the area. Communication tools such as presentations and maps must be transmitted diligently right at the preparatory exploration stage.

Table 8 - Recommendations

Phase	Recommendation	Item	Unit/Quantity/Rate	Cost (CAD, pre tax)
Phase1	Follow up on 2021 radiometric anomalies	Ground Radiometry and magnetometry, Line cutting Pitting and sampling Geological mapping	4 weeks mobilization	\$150,000
Phase 1		Reporting		\$25,000
	Phase 1 Total cost			\$175,000
Phase 2	Stripping and sampling	Access and excavation works Channel sampling Mapping	4 weeks mobilization	\$120,000
Phase 2	Aerial photo or imagery	Data acquisition Analysis		\$10,000 \$20,000
Phase 2		Reporting		\$25,000
	<u>Phase 2 Total Costs*</u>			<u>\$175,000</u>

* These costs are estimates only

27.0 REFERENCES

Barrette, G; 2015: Projet Lucia 6% ETR

Bradley, D; McCauley, A; 2016: A Preliminary Deposit Model for Lithium-Cesium-Tantalum(LCT) Pegmatites. USGS Open File Report 2013-1008

Černý, P; 1989: Exploration Strategy and Methods for Pegmatite Deposits of Tantalum. In Special Publication No 7 of the Society for Geology Applied to Mineral Deposits

Černý, P; Ercit, T S; 2005: The Classification of Granitic Pegmatites Revisited. The Canadian Mineralogist, vol 43

Cloutier, A; Kleinboeck, J; 2012 : Technical Report of the 2011 Prospecting Campaign and Historical Compilation on the Ceres Property, Québec, for Entreprises Minière du Nouveau-Monde

D'Amours, I; Intissar, R; 2012: Leve magnetique aeroporté dans le secteur de Manic-Outardes, Province de Grenville.

Dion, D J; 2006: Données numériques des levés géophysiques aéroportés aux travaux statutaires, région du Grenville et des Basses Terres du Saint-Laurent (à l'ouest de la longitude 68°)

Ercit, T S; 2005 : REE-enriched granitic pegmatites. Rare-Element Geochemistry and Mineral Deposits, Geological Association of Canada Short Course Notes

Gleeson, C; 1976: Report on Geochemical Lake Sediment Survey, Project Manic, 1976

Groves, D I; Bierlein, F P; Meinert, L D; Hitzman, M W; 2010 : Iron Oxide Copper Gold (IOCG) Deposits through Earth History, Implications for Origin, Lithospheric Setting and Distinction from Other Epigenetic Iron Oxide Deposits. Economic Geology volume 105

Gosselin, C; Guemache, M; Tremblay, A; 2013: Nouvelles cibles pour l'exploration minière, travaux géoscientifiques 2013. SIGEOM PRO 2013 02

Gowans, R M; Lewis, W J; Shoemaker, S; Spooner, J; Zalneriunas, R V; 2014 : NI 43-101 Technical Report on the Preliminary Economic Assessment (PEA) for the Strange Lake Property, Québec, Canada. Micon International Ltd for Quest Rare Minerals Ltd

Hurtubise, E; 2005: Rapport des travaux de terrain de la campagne 2004, région Manicouagan. Exploraiton minière Manicouagan Inc

McCann, J; Armstrong, E; Lacasse, J; 1977: Rapport sur la Campagne d'exploration, etc 1977, Baie-Comeau, Port-Cartier, Manicouagan, Projet Manic 22-200, Rapports d'anomalies.

- McCann, J; Lacasse, J; 1977: Campagne d'exploration, etc 1976, projet Manic 22-100
- Mitchell, R.H.; 1996 : Undersaturated Alkaline Rocks: Mineralogy, Petrogenesis, and Economic Potential, Mineralogical Association of Canada, Short Course Series Volume 24.
- Moukhsil, A; Solgadi, F; Belkaeim, S; Elbasbas, A; Augland, L; 2014: Géologie de la région du lac Okaopéo, Cote-Nord. SIGEOM RG 2014 03
- Popova, Y; Ross, M; 2021: Property Option Agreement. DJ1 Capital Corp and Doctors Investment Group Ltd.
- Richard, M; 1978: Leve geochimique de sediments de fonds de lacs (plans seulement), Projet Manic 22-2002.
- Rensby, J., 2021 : Assessment Report on Exploration Activities, Lac Ducharme property - September 2021.
- SIGEOM, 2018: Province de Grenville. URL:
<http://gq.mines.gouv.qc.ca/lexique-stratigraphique/province-de-grenville/>
- SOQUEM, 1977: Rapport sur la Campagne d'exploration, etc 1977, Baie-Comeau, Port-Cartier, Manicouagan, Projet Manic 22-200, Rapports d'anomalies.
- Toens, P D; Corner, B; 1980 : Uraniferous Alaskitic Granites with Special Reference to the Damara Orogenic Belt. Atomic Energy Board, Republic of South Africa
- Trépanier, S; 2009: Evaluation du potentiel mineral en uranium et en Cu-Au-U, et cartographie previsionelle d'intrusions mafiques ultramafiques dans le Grenville.
- Turlin, F; Andre-Mayer, AS; Moukhsil, A; Vanderhaeghe, O; Gervais, F; Solgadi, F; Groulier, PA; Poujol, M; 2017: Unusual LREE-rich, peraluminous, monazite- or allanite-bearing pegmatitic granite in the central Grenville Province, Québec. Ore Geology Reviews (2017).
- Turlin, F; Vanderhaeghe, O; Gervais, F; Andre-Mayer, AS; Moukhsil, A; Zeh, A; Solgadi, F; 2019 : Petrogenesis of LREE-rich pegmatitic granite dykes in the central Grenville Province by partial melting of Paleoproterozoic-Archean metasedimentary rocks: Evidence from zircon U- Pb-Hf-O isotope and trace element analysis. Precambrian Research 327
- Wilson, B; 1977: The Grenville Reconnaissance Project, a Compilation and Proposal

28.0 APPENDICES

Lac Ducharme sampling, September 2021

Extract from: Assessment Report on Exploration Activities, Lac Ducharme Property – September 2021

Samp le No	Sampling Date	Easting UTMnad83	Northing UTMnad83
43075	2021-09-06	510677	5603364
36951	2021-09-06	510687	5683348
36952	2021-09-06	510669	5603372
36953	2021-09-06	510688	5603346
36954	2021-09-06	510663	5603371
36955	2021-09-06	510685	5603349
36956	2021-09-06	510677	5603364
36957	2021-09-06	510687	5603346
36958	2021-09-06	510669	5603371
36959	2021-09-06	510673	5603375
36960	2021-09-07	510685	5603357
36961	2021-09-07	510632	5603315
36962	2021-09-07	510627	5603306
36963	2021-09-08	510211	5601197
36964	2021-09-08	510211	5601196
36965	2021-09-07	510225	5601196
36966	2021-09-08	510206	5601199

36967	2021-09-08	510208	5601198
36968	2021-09-08	510209	5601198
36969	2021-09-08	510209	5601195
36970	2021-09-07	510208	5601198
36971	2021-09-08	510209	5601194
36972	2021-09-08	510185	5601176
36973	2021-09-09	510200	5601184
36974	2021-09-09	510195	5601166
36975	2021-09-09	510205	5601175
36976	2021-09-09	510965	5602862
36977	2021-09-09	511011	5602869
36978	2021-09-09	510841	5603491

Drill Hole	Easting (UTMnad83)	Northing (UTMnad83)	DOH (m)	Recovered	Sample(s)	Results (%)
LD- 001	510673	5603376	1.68	1.68	LD-01	0.327 %
LD- 002	510666	5603370	1.76	1.72	LD-02A, LD-02B	0.1199 %, 0.0301 %
LD- 003	510664	5603375	1.28	1.28	LD-03	0.274 %
LD- 004	510698	5603342	0.53	0.53	LD-04	0.1073 %
LD- 005	510200	5601187	1.28	1.23	LD-05A, LD-05B	0.2765 %, 0.0263%
LD- 006	510184	5601189	0.99	0.87	LD-06	0.0879%
LD- 007	510223	5601196	0.41	0.41	LD-07	0.0514%
LD- 008	510220	5601196	0.98	0.98	LD-08A, LD-08B	0.0721 %, 0.0407%
LD- 009	510209	5601194	1.85	1.8	LD-09	0.3063 %
LD- 010	510207	5601197	2.24	2.24	LD-10A, LD- 10B	0.2114 %, 0.1127%

Lac Ducharme Certificate of Analysis, October 2021

Quality Analysis ...



Innovative Technologies

Tactical Resources
2288- 1177 West Hastings Street
Vancouver V6E 2K3
Canada

ATTN: Anna Hicken

Report No.: A21-18542
Report Date: 26-Oct-21
Date Submitted: 04-Oct-21
Your Reference: Lac Ducharme

CERTIFICATE OF ANALYSIS

47 Rock samples were submitted for analysis.

The following analytical package(s) were requested:		Testing Date:
8-REE Assay Package	QOP WRA/ QOP WRA 4B2 (Major/Trace Elements) Fusion ICPOES/ICPMS	2021-10-08 09:16:27

REPORT A21-18542

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Total includes all elements in % oxide to the left of total.

Footnote: Zr/Nb/Ta/Hf may be semi-quantitative for samples with P2O5 >0.3%.



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CERTIFIED BY:

Emmanuel Eseme, Ph.D.
Quality Control Coordinator

Analyte Symbol	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01	0.01	0.01	1	1	5	20	1	20	10	30	1	1	5
Method Code	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	GRAV	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
LD-01	69.72	14.36	2.73	0.027	0.37	1.83	2.90	5.49	0.349	0.21	0.94	98.92	4	1	6	<20	2	<20	<10	50	29	2	<5
LD-02A	71.56	13.43	1.89	0.017	0.23	1.19	2.58	6.55	0.232	0.06	0.81	98.55	2	<1	<5	<20	9	<20	<10	30	19	<1	<5
LD-02B	66.75	13.90	6.87	0.098	0.94	2.97	2.82	2.96	0.896	0.32	0.71	99.24	14	2	41	<20	14	<20	<10	90	21	2	<5
LD-03	66.58	14.33	4.85	0.052	0.67	2.54	2.77	5.19	0.734	0.30	0.57	98.58	7	2	34	<20	7	<20	<10	90	21	1	<5
LD-04	70.94	13.65	2.21	0.017	0.26	1.07	2.47	6.82	0.297	0.07	0.78	98.59	3	<1	<5	<20	2	<20	<10	40	19	1	<5
LD-05A	70.02	13.96	4.01	0.039	0.31	1.81	3.32	4.45	0.345	0.02	0.58	98.87	4	2	19	<20	2	<20	<10	60	27	1	<5
LD-05B	52.02	16.84	9.88	0.149	4.51	7.96	3.65	1.76	1.362	0.44	1.31	99.89	24	2	175	70	25	<20	20	120	22	1	<5
LD-06	71.03	13.98	2.16	0.018	0.18	0.81	2.70	6.56	0.127	<0.01	0.83	98.40	2	3	<5	<20	6	<20	<10	30	40	21	<5
36979	98.50	0.57	0.92	0.011	0.03	0.03	0.13	0.09	0.028	<0.01	0.18	100.5	<1	<1	<5	<20	1	<20	<10	<30	1	<1	<5
LD-07	65.00	14.73	8.09	0.058	0.09	2.02	3.93	3.95	0.681	0.01	0.26	98.82	3	4	30	<20	4	<20	<10	130	33	1	<5
LD-08A	66.40	13.70	7.06	0.047	0.26	1.71	3.13	5.03	0.641	0.28	0.46	98.71	3	3	29	<20	5	<20	<10	70	28	1	<5
LD-08B	57.95	14.00	10.34	0.133	2.02	4.48	2.88	4.13	2.011	1.19	1.06	100.2	13	4	87	<20	15	<20	<10	170	26	1	<5
LD-09	70.82	14.22	2.12	0.030	0.34	2.14	3.66	3.61	0.216	0.10	0.87	98.13	5	3	8	<20	2	<20	<10	30	26	1	<5
LD-10A	73.50	14.11	1.53	0.021	0.21	1.41	3.03	5.27	0.134	<0.01	1.25	100.5	3	2	<5	<20	1	<20	<10	<30	21	1	<5
LD-10B	72.54	13.49	2.31	0.030	0.38	1.65	3.15	4.20	0.267	0.08	0.87	98.96	4	3	10	<20	3	<20	<10	60	23	1	<5
43075	66.83	15.64	2.98	0.034	0.28	2.07	3.21	5.89	0.310	0.27	0.87	98.48	4	3	7	<20	2	<20	<10	80	27	<1	<5
36951	69.51	14.41	2.58	0.021	0.29	1.55	2.97	5.64	0.317	0.20	0.93	98.41	4	1	6	<20	2	<20	<10	40	24	<1	<5
36952	73.73	11.99	2.27	0.015	0.23	0.73	1.78	6.27	0.373	0.04	1.23	98.66	2	<1	5	<20	1	<20	<10	40	18	<1	<5
36953	67.56	13.54	5.31	0.051	0.62	1.55	2.43	5.32	0.701	0.17	1.14	98.39	8	1	26	<20	5	<20	<10	110	20	1	<5
36980	31.30	11.29	46.12	0.093	1.71	1.78	0.23	2.88	2.989	0.80	1.63	98.21	43	2	403	580	12	<20	50	190	44	2	36
36954	71.00	12.44	3.81	0.047	0.38	1.45	2.23	5.13	0.558	0.09	1.46	98.59	5	1	21	<20	3	<20	<10	60	19	<1	<5
36955	70.74	14.57	2.19	0.023	0.24	1.74	3.17	4.80	0.265	0.10	0.84	98.66	3	1	7	<20	2	<20	<10	30	31	2	<5
36956	67.18	13.70	6.11	0.078	0.76	2.68	2.99	3.39	0.814	0.26	0.57	98.52	10	2	39	<20	6	<20	<10	130	21	1	<5
36957	71.10	14.16	2.13	0.017	0.23	0.83	2.52	6.70	0.271	0.05	0.55	98.57	2	<1	<5	<20	14	<20	<10	40	20	<1	<5
36958	72.19	12.93	2.44	0.017	0.28	0.87	2.18	6.40	0.360	0.08	1.12	98.85	3	<1	<5	<20	2	<20	<10	60	19	<1	<5
36959	68.78	14.34	2.98	0.022	0.38	1.64	2.71	5.89	0.424	0.21	0.92	98.29	5	<1	6	<20	2	<20	<10	50	27	<1	<5
36960	70.69	14.22	1.59	0.016	0.13	0.53	2.52	7.91	0.151	<0.01	0.81	98.56	2	3	<5	<20	1	<20	<10	50	20	1	<5
36961	72.64	12.40	1.85	0.018	0.16	0.69	1.99	6.89	0.233	0.07	3.53	100.5	2	<1	<5	<20	27	<20	<10	370	20	1	<5
36962	68.97	15.03	2.72	0.029	0.31	2.13	3.41	4.28	0.344	0.16	1.38	98.76	6	2	<5	<20	66	<20	30	90	33	1	<5
36963	71.79	14.12	2.56	0.035	0.34	2.27	3.68	2.79	0.237	<0.01	1.06	98.88	6	3	10	<20	2	<20	<10	40	31	1	<5
36961	96.63	0.61	0.96	0.011	0.06	0.04	0.10	0.09	0.036	<0.01	0.36	98.91	<1	<1	6	<20	1	<20	<10	<30	1	<1	<5
36964	67.07	15.47	5.26	0.065	0.72	2.79	4.34	1.84	0.609	<0.01	1.20	99.37	11	3	20	<20	10	<20	30	100	40	1	<5
36965	64.89	16.49	2.52	0.025	0.50	1.61	2.90	7.96	0.311	0.41	0.88	98.49	2	2	13	<20	3	<20	<10	60	21	<1	<5
36966	70.66	15.97	2.04	0.031	0.29	3.17	4.76	1.19	0.164	0.06	1.01	99.32	5	4	10	<20	192	<20	710	50	30	1	<5
36967	66.24	16.06	3.50	0.054	0.50	2.95	4.38	2.02	0.266	0.02	1.62	97.60	15	6	18	<20	6	<20	<10	50	48	2	9
36968	67.46	14.65	4.65	0.058	0.72	2.72	3.85	1.75	0.542	0.03	1.65	98.08	12	3	20	<20	73	<20	270	90	39	1	<5
36969	69.39	15.40	2.28	0.031	0.39	2.81	4.20	2.22	0.228	0.06	0.91	97.91	5	5	10	<20	13	<20	30	140	30	1	<5
36970	71.29	13.88	2.77	0.035	0.39	2.20	3.56	2.55	0.247	0.02	1.24	98.18	6	3	10	<20	68	<20	250	50	30	1	<5
36971	72.28	14.84	1.57	0.020	0.23	1.34	3.81	4.88	0.142	<0.01	1.00	100.1	4	2	5	<20	34	<20	130	30	24	<1	<5
36972	71.75	12.35	4.27	0.037	0.20	1.17	2.73	4.69	0.407	0.01	1.13	98.76	3	3	20	<20	3	<20	<10	40	25	1	<5
36973	72.59	14.29	1.26	0.012	0.07	1.26	3.06	5.65	0.059	<0.01	0.68	98.94	<1	2	5	<20	2	<20	<10	<30	20	<1	<5
36982	30.88	11.09	47.72	0.093	1.69	1.79	0.22	2.967	0.80	1.59	99.12	42	2	400	600	13	40	60	160	45	2	38	
36974	57.57	12.74	12.93	0.282	0.74	0.74	1.59	6.47	2.218	0.33	4.53	100.1	10	2	146	<20	14	<20	130	40	45	2	<5
36975	69.19	13.70	5.09	0.035	0.99	0.95	3.12	5.11	0.551	0.20	1.67	100.6	5	2	22	<20	5	<20	10	340	24	2	<5
36976	56.30	14.48	12.35	0.132	1.45	4.06	2.92	3.49	1.801	1.14	0.43	98.56	30	1	80	<20	10	<20	10	200	45	3	8
36977	56.30	17.91	12.15	0.291	0.58	4.30	3.21	3.86	0.887	0.19	-0.29	99.38	12	5	21	<20	5	<20	<10	330	43	2	<5
36978	68.46	14.33	2.87	0.025	0.23	1.29	2.13	6.87	0.475	0.04	1.34	98.06	5	<1	44	<20	2	<20	<10	40	26	1	<5

Analyte Symbol	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	2	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.1	0.1	0.05	0.1	0.1	0.05	0.1	0.1	0.1	0.1
Method Code	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
LD-01	117	172	23	1176	8	4	<0.5	<0.2	<1	<0.5	<0.5	622	<0.4	887	1610	165	520	52.9	2.80	18.3	1.7	7.0	1.0
LD-02A	139	166	8	162	5	<2	<0.5	<0.2	<1	<0.5	<0.5	740	<0.4	328	592	59.3	186	19.1	2.48	7.0	0.7	2.6	0.3
LD-02B	89	178	55	510	18	<2	<0.5	<0.2	<1	<0.5	<0.5	997	<0.4	610	117	14.4	56.0	11.2	1.85	9.9	1.7	10.6	2.2
LD-03	127	218	24	271	12	2	<0.5	<0.2	<1	<0.5	0.5	1457	<0.4	59.2	117	13.6	52.2	9.4	2.22	7.4	1.0	5.3	1.0
LD-04	143	160	7	250	5	3	<0.5	<0.2	<1	<0.5	<0.5	806	<0.4	293	532	53.3	164	17.4	2.61	6.2	0.6	2.2	0.3
LD-05A	110	252	30	477	5	<2	<0.5	<0.2	<1	<0.5	0.5	477	<0.4	689	1330	147	486	63.6	2.44	27.2	2.6	10.1	1.4
LD-05B	47	711	31	179	11	<2	<0.5	<0.2	<1	<0.5	0.6	543	<0.4	52.6	109	13.2	51.8	9.9	2.25	7.5	1.1	6.6	1.2
LD-06	212	205	24	191	9	<2	<0.5	<0.2	<1	<0.5	2.2	631	<0.4	229	412	44.7	149	19.9	1.50	10.1	1.2	5.9	1.0
36979	3	5	3	39	1	<2	<0.5	<0.2	<1	<0.5	<0.5	25	<0.4	3.6	6.1	0.71	2.6	0.5	0.08	0.5	<0.1	0.5	0.1
LD-07	97	201	8	149	18	2	<0.5	<0.2	<1	<0.5	0.7	486	<0.4	138	238	26.8	88.3	11.3	1.43	5.0	0.5	2.2	0.3
LD-08A	124	248	30	403	10	<2	<0.5	<0.2	<1	<0.5	0.6	670	<0.4	169	340	36.8	126	19.7	1.63	11.4	1.5	7.3	1.2
LD-08B	125	555	48	335	29	2	<0.5	<0.2	4	<0.5	1.9	1959	<0.4	73.2	164	21.3	88.7	17.8	3.94	13.6	1.9	10.4	1.8
LD-09	105	219	40	2190	9	<2	<0.5	<0.2	<1	<0.5	0.8	417	<0.4	777	1460	161	536	70.1	2.55	30.6	3.0	12.2	1.8
LD-10A	134	202	24	906	6	<2	<0.5	<0.2	<1	<0.5	0.8	600	<0.4	541	1020	110	361	45.8	2.17	19.3	1.8	7.2	1.0
LD-10B	134	183	22	680	11	<2	<0.5	<0.2	<1	<0.5	1.4	447	<0.4	277	539	58.4	198	27.3	1.59	12.8	1.3	5.8	0.9
36951	121	173	22	629	5	23	<0.5	<0.2	<1	<0.5	<0.5	661	<0.4	941	1720	178	552	56.5	3.06	20.2	1.9	7.3	1.0
36952	137	132	4	292	6	13	<0.5	<0.2	<1	<0.5	0.5	724	<0.4	92.5	181	17.3	52.5	5.6	1.81	2.2	0.2	1.0	0.2
36953	135	175	26	277	11	5	<0.5	<0.2	<1	<0.5	<0.5	1121	<0.4	72.4	155	15.0	51.2	7.7	2.03	5.6	0.9	5.3	1.1
36980	13	557	82	524	1040	47	<0.5	0.6	24	2.5	0.7	980	<0.4	25.7	3600	487	1660	223	47.7	93.2	9.1	35.4	4.5
36954	118	169	18	258	13	6	<0.5	<0.2	<1	<0.5	0.5	1231	<0.4	26.2	49.2	5.13	18.1	3.2	1.80	2.9	0.5	3.5	0.7
36955	106	176	18	691	6	10	<0.5	<0.2	<1	<0.5	<0.5	613	<0.4	898	1670	167	522	54.1	2.87	17.5	1.5	6.3	0.8
36956	102	215	38	441	16	2	<0.5	<0.2	<1	<0.5	0.7	1199	<0.4	32.9	72.5	8.77	36.6	8.1	2.00	7.6	1.2	7.4	1.5
36957	142	156	7	247	5	6	1.6	<0.2	<1	<0.5	<0.5	772	<0.4	346	632	63.0	193	19.9	2.56	7.0	0.6	2.5	0.3
36958	142	148	7	264	7	19	<0.5	<0.2	<1	<0.5	0.5	710	<0.4	220	420	40.8	127	13.4	2.07	5.0	0.5	2.0	0.3
36959	128	185	25	648	6	5	<0.5	<0.2	<1	<0.5	<0.5	673	<0.4	1180	2170	225	701	71.5	3.12	26.0	2.4	8.6	1.1
36960	214	117	5	21	7	<2	<0.5	<0.2	<1	<0.5	2.4	678	<0.4	10.0	16.5	1.55	4.8	0.7	1.72	0.6	0.1	0.8	0.2
36961	158	138	7	845	6	3	0.5	<0.2	<1	<0.5	0.7	725	<0.4	188	387	36.8	115	13.0	2.31	4.9	0.5	2.3	0.4
36962	104	191	37	781	7	16	4.8	<0.2	<1	<0.5	0.6	470	<0.4	1470	2800	287	897	93.9	3.61	34.3	3.1	12.5	1.6
36963	85	207	46	583	8	<2	<0.5	<0.2	<1	<0.5	0.5	212	<0.4	1100	2180	245	830	112	3.31	49.2	4.7	17.3	2.2
36964	3	4	5	43	1	<2	<0.5	<0.2	<1	<0.5	<0.5	23	<0.4	4.1	7.8	0.87	3.0	0.5	0.06	0.6	0.1	0.7	0.1
36965	90	229	58	1493	22	<2	<0.5	<0.2	3	<0.5	1.0	157	<0.4	1710	3380	363	1180	150	4.17	60.1	5.7	21.1	2.7
36966	164	455	27	116	6	<2	<0.5	<0.2	<1	<0.5	0.7	1912	<0.4	196	384	40.9	138	21.0	2.10	11.8	1.4	6.5	1.0
36967	33	278	46	3144	6	<2	<0.5	<0.2	68	<0.5	<0.5	162	<0.4	1010	1980	216	705	91.4	3.15	38.3	3.8	14.1	2.0
36967	66	320	170	6804	13	<2	<0.5	0.2	2	<0.5	0.6	176	<0.4	2840	5680	624	2120	289	6.66	124	12.3	49.9	6.9
36968	77	254	75	2692	18	<2	<0.5	<0.2	26	<0.5	1.2	239	<0.4	1770	3540	385	1280	173	4.40	71.6	6.9	26.2	3.4
36969	71	246	47	5114	11	<2	<0.5	<0.2	3	<0.5	0.8	276	<0.4	808	1570	166	542	69.8	2.77	29.4	3.0	12.6	2.0
36970	81	217	41	4194	9	<2	0.7	<0.2	23	<0.5	0.7	326	<0.4	1150	2240	242	786	96.9	2.91	37.9	3.5	13.9	1.9
36971	103	214	27	1001	5	<2	<0.5	<0.2	12	<0.5	<0.5	475	<0.4	596	1200	128	423	56.4	2.08	23.3	2.3	9.1	1.1
36972	149	165	10	770	16	<2	<0.5	<0.2	2	<0.5	2.4	448	<0.4	88.4	176	18.0	58.9	7.8	1.03	3.6	0.4	2.3	0.4
36973	141	191	8	232	2	10	<0.5	<0.2	<1	<0.5	0.5	616	<0.4	174	341	35.4	114	14.5	1.45	5.8	0.6	2.4	0.3
36982	13	570	87	556	1070	48	<0.5	0.6	26	27	0.7	984	<0.4	2770	3670	506	1730	231	49.1	94.5	9.2	36.3	4.6
36974	160	186	45	1975	41	7	<0.5	<0.2	2	<0.5	3.0	828	<0.4	161	301	33.7	117	17.5	22.0	10.2	1.5	8.3	1.6
36975	125	206	26	644	16	<2	<0.5	<0.2	2	<0.5	0.5	993	<0.4	211	432	45.7	156	22.0	2.44	11.1	1.4	6.8	1.1
36976	94	98	235	668	43	3	<0.5	0.3	<1	<0.5	<0.5	447	<0.4	2670	5410	603	2210	287	2.52	150	14.9	63.0	9.2
36977	96	183	599	2286	192	22	<0.5	0.5	1	<0.5	<0.5	1246	<0.4	999	2030	251	962	179	8.80	142	22.7	132	24.6
36978	166	258	27	141	9	<2	<0.5	<0.2	<1	<0.5	<0.5	1986	<0.4	984	1860	192	614	68.4	3.05	26.8	2.2	8.5	1.1

Results

Analyte Symbol	Er	Tm	Yb	Lu	Hf	Ta	W	Ti	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.05	0.1	0.04	0.2	0.1	1	0.1	5	0.1	0.1
Method Code	FUS- MS	FUS- MS	FUS- MS	FUS- MS	FUS- MS	FUS- MS	FUS- MS	FUS- MS	FUS- MS	FUS- MS	FUS- MS
LD-01	1.9	0.26	1.7	0.26	28.9	0.2	<1	0.9	39	87.3	2.1
LD-02A	0.7	0.08	0.4	0.07	3.7	0.2	<1	0.8	40	29.5	0.5
LD-02B	6.8	1.00	6.6	1.05	12.1	1.1	3	0.5	19	5.3	0.7
LD-03	2.6	0.38	2.5	0.40	6.3	1.1	<1	0.6	27	5.8	0.6
LD-04	0.6	0.08	0.5	0.08	5.4	0.2	<1	0.7	38	24.1	0.7
LD-05A	2.7	0.33	1.9	0.31	11.6	0.3	<1	0.7	33	117	2.4
LD-05B	3.6	0.51	3.1	0.50	4.3	0.8	1	0.2	6	6.2	0.7
LD-06	2.4	0.30	1.9	0.31	5.1	0.8	<1	1.4	56	39.9	2.2
36979	0.4	0.05	0.3	0.05	0.9	0.2	<1	<0.1	<5	1.3	0.4
LD-07	0.8	0.11	0.8	0.13	3.7	1.4	<1	0.4	36	19.0	2.7
LD-08A	3.1	0.38	2.2	0.35	10.1	0.7	<1	0.6	31	29.4	1.4
LD-08B	4.7	0.67	4.1	0.60	3.8	2.1	<1	0.6	20	9.1	2.2
LD-09	4.0	0.55	3.6	0.61	54.6	0.5	<1	0.5	30	134	4.4
LD-10A	2.2	0.29	1.8	0.30	21.0	0.3	<1	0.7	37	88.0	2.5
LD-10B	2.3	0.34	2.1	0.34	17.7	0.7	<1	0.6	34	48.8	2.1
43075	2.6	0.32	1.9	0.29	3.7	0.6	<1	0.8	41	79.7	2.1
36951	2.0	0.23	1.3	0.21	14.1	0.1	<1	0.6	35	101	1.9
36952	0.5	0.06	0.4	0.06	6.9	0.2	<1	0.6	33	26.2	0.5
36953	3.0	0.45	3.1	0.47	6.3	0.8	<1	0.6	29	14.8	0.5
36980	8.4	0.88	4.1	0.58	10.7	21.6	3	<0.1	107	211	4.8
36954	2.1	0.31	2.1	0.35	5.6	0.6	<1	0.5	29	5.4	0.5
36955	1.5	0.20	1.3	0.22	16.9	0.2	<1	0.4	34	89.1	1.8
36956	4.2	0.62	4.1	0.68	9.8	1.1	<1	0.4	24	7.0	0.6
36957	0.7	0.09	0.5	0.09	5.6	0.2	<1	0.6	39	32.8	0.9
36958	0.6	0.09	0.5	0.08	6.1	0.2	<1	0.6	37	34.4	0.6
36959	2.1	0.24	1.4	0.22	14.2	0.2	<1	0.5	33	123	1.9
36960	0.5	0.09	0.6	0.10	0.5	0.5	<1	1.1	47	2.9	0.5
36961	0.9	0.15	1.0	0.18	23.0	0.2	<1	0.7	46	34.9	1.4
36962	3.4	0.43	2.4	0.39	17.8	0.3	<1	0.4	31	203	3.1
36963	4.0	0.45	2.4	0.37	14.8	0.3	<1	0.3	23	223	3.0
36981	0.4	0.07	0.5	0.07	1.2	0.2	<1	<0.1	<5	1.7	0.4
36964	5.2	0.62	3.5	0.56	37.5	0.6	<1	0.3	20	309	4.6
36965	2.3	0.29	1.5	0.22	2.7	0.3	<1	0.8	46	61.4	0.8
36966	4.5	0.64	4.1	0.69	76.2	0.3	<1	<0.1	21	214	6.3
36967	15.9	2.18	14.5	2.31	168	0.9	<1	0.2	27	602	19.4
36968	6.8	0.87	4.9	0.79	66.9	0.5	<1	0.3	19	372	6.9
36969	5.3	0.85	6.4	1.10	132	1.1	<1	0.2	28	172	9.9
36970	4.2	0.64	4.4	0.75	110	0.4	<1	0.2	28	217	6.6
36971	2.4	0.30	1.9	0.29	24.2	0.2	<1	0.4	31	148	2.6
36972	1.1	0.17	1.2	0.21	18.8	1.4	<1	0.7	36	42.8	1.8
36973	0.7	0.10	0.6	0.09	5.5	0.2	1	0.6	36	41.0	0.9
36982	8.1	0.87	4.6	0.59	11.5	22.0	3	<0.1	112	219	5.0
36974	4.7	0.68	4.5	0.74	44.6	2.0	1	1.3	44	149	6.5
36975	2.5	0.31	2.0	0.33	16.1	0.6	<1	0.7	30	45.3	1.8
36976	20.2	2.39	13.1	1.75	13.8	2.3	<1	0.7	29	1170	16.4
36977	67.3	8.95	54.6	8.56	48.7	7.4	<1	0.6	35	139	17.7
36978	2.2	0.27	1.6	0.26	3.1	0.5	<1	0.8	24	312	1.9

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Analyte Symbol	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	Bi	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	2	2	4	1	2	0.5	0.2	1	0.5	0.5	3	0.4	0.1	0.1	0.05	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1
Method Code	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
NIST 694 Meas																							
NIST 694 Cert	147	15	34								108												
DNC-1 Meas	144.0	18.0	38								118												
DNC-1 Cert	1200	114	531	14						1.5	350		59.4	126	14.7	57.6	13.3	1.95	14.0	2.7	19.0	4.3	14.0
SY-4 Meas	1191	119	517	13						1.5	340		58	122	15.0	57	12.7	2.00	14.0	2.6	18.2	4.3	14.2
SY-4 Cert	107	13	14	< 1					0.5		8					2.4	1.1	0.57	1.8				
BIR-1a Meas	110	16	18	0.6					0.58		6					2.5	1.1	0.55	2.0				
BIR-1a Cert								1290	4.4	263			30.4	102	9.50	24.9	6.8		4.5				
ZWC Meas				212				1300	4.2	260			799	1320	125	376	48.0	7.64	4.70				
ZWC Cert				198																			
OREAS 101b (Fusion) Meas						20														5.1	30.9	6.1	18.1
OREAS 101b (Fusion) Cert					21								789	1331	127	378	48	7.77		5.37	32.1	6.34	18.7
NCS DC86318 Meas										11.4			1890	413	712	3180	1630	18.3	2120	476	3030	564	1680
NCS DC86318 Cert										11.88			1960	432	737	3429	1725	18.91	2168	468	3224	560	1750
NCS DC86318 Meas										11.4			1890	413	712	3180	1630	18.3	2120	476	3030	564	1680
NCS DC86318 Cert										11.88			1960	432	737	3429	1725	18.91	2168	468	3224	560	1750
SARM 3 Meas				1040																			
SARM 3 Cert				978																			
USZ 25-2006 Meas																							
USZ 25-2006 Cert																							
USZ 42-2006 Meas				35	36								20500	27500	2250	6270	504	85.0				7.5	
USZ 42-2006 Cert				31.00	34.40								21100	27600	2300	6500	539	87.22					
REE-1 Meas								499		1.1			1660	3920	440	1470	393	23.8	417	110	877	206	709
REE-1 Cert								498		1.07			1661	3960	435	1456	381	23.5	433	106	847	208	701
LD-10B Orig	187	22	719	11	< 2	< 0.5	< 0.2	1	< 0.5	1.4	454	< 0.4	283	551	60.0	202	27.9	1.61	13.0	1.3	5.9	0.9	2.3
LD-10B Dup	179	21	642	11	< 2	< 0.5	< 0.2	1	< 0.5	1.4	440	< 0.4	271	526	56.7	194	26.8	1.56	12.7	1.3	5.7	0.9	2.3
36964 Orig	234	58	1504	22	< 2	< 0.5	< 0.2	4	< 0.5	1.0	160	< 0.4	1680	3350	359	1160	146	4.15	59.0	5.7	20.5	2.6	5.2
36964 Dup	224	57	1482	23	< 2	< 0.5	< 0.2	2	< 0.5	1.1	154	< 0.4	1730	3420	368	1200	153	4.19	61.2	5.7	21.7	2.7	5.2
Method Blank	< 2	< 2	< 4	< 1	< 2	< 0.5	< 0.2	< 1	< 0.5	< 0.5	< 3	< 0.4	< 0.1	< 0.1	< 0.05	< 0.1	< 0.1	< 0.05	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Method Blank	< 2	< 2	< 4	< 4							< 3	< 3											
Method Blank	< 2	< 2	< 4	< 4							< 3	< 3											

Analyte Symbol	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge	As	Rb
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01	0.01	1	1	5	20	1	20	10	30	1	1	5	2
Method Code	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
NIST 694 Meas	11.27	1.89	0.73	0.010	0.35	43.31	0.88	0.55	0.120	30.25				1667									
NIST 694 Cert	11.2	1.80	0.790	0.0116	0.330	43.6	0.860	0.510	0.110	30.2				1740									
DNC-1 Meas	47.72	18.76	9.94	0.150	10.11	11.38	1.95	0.23	0.490	0.05		31		157									
DNC-1 Cert	47.15	18.34	9.97	0.150	10.13	11.49	1.890	0.234	0.460	0.070		31		148									
SY-4 Meas	50.35	20.70	6.22	0.110	0.51	8.01	7.02	1.69	0.290	0.13		<1	3	7					80	35			55
SY-4 Cert	49.9	20.69	6.21	0.108	0.54	8.05	7.10	1.66	0.287	0.131		1.1	2.6	8.0					93	35			55.0
BIR-1a Meas	48.23	15.39	11.37	0.170	9.60	13.54	1.81	0.02	0.970	0.01		44	<1	336	400	54	180	130	70	15			
BIR-1a Cert	47.96	15.50	11.30	0.175	9.700	13.30	1.82	0.030	0.96	0.021		44	0.58	310	370	52	170	125	70	16			
ZW-C Meas															60				1020	93			8410
ZW-C Cert															56.0				1050	99			8500
OREAS 101b (Fusion) Meas																45		420					
OREAS 101b (Fusion) Cert																47		420					
NCS DC86318 Meas																							382
NCS DC86318 Cert																							369.42
NCS DC86318 Meas																							382
NCS DC86318 Cert																							369.42
SARM 3 Meas																							
SARM 3 Cert																							
USZ 25-2006 Meas																34	70		640				
USZ 25-2006 Cert																32.5	70.8		600				
USZ 42-2006 Meas																4	< 20	20	440				
USZ 42-2006 Cert																7.89	13.18	27.37	469				
REE-1 Meas																290			80			128	1040
REE-1 Cert																277			79.7			124	1050
LD-10B Orig	72.57	13.65	2.33	0.031	0.39	1.64	3.20	4.28	0.271	0.08	99.32	4	3	10	<20	3	< 20	< 10	70	23	1	< 5	136
LD-10B Dup	72.51	13.34	2.29	0.030	0.37	1.65	3.10	4.12	0.264	0.08	98.61	4	3	10	<20	3	< 20	< 10	50	22	1	< 5	131
36964 Orig	66.66	15.73	5.26	0.065	0.73	2.75	4.47	1.89	0.615	<0.01	99.36	12	3	20	<20	11	< 20	30	90	39	1	< 5	88
36964 Dup	67.49	15.22	5.25	0.066	0.72	2.82	4.21	1.79	0.602	<0.01	99.37	11	3	20	<20	9	< 20	20	100	41	1	< 5	91
Method Blank	0.04	< 0.01	< 0.01	0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.001	< 0.01		<1	<1	<5	<20	<1	< 20	< 10	< 30	<1	<1	< 5	<2
Method Blank	0.01	< 0.01	< 0.01	0.003	< 0.01	0.02	< 0.01	< 0.01	< 0.001	< 0.01		<1	<1	< 5									
Method Blank	0.01	< 0.01	< 0.01	0.003	< 0.01	< 0.01	< 0.01	< 0.01	< 0.001	< 0.01		<1	<1	< 5									

Analyte Symbol	Trm	Yb	Lu	Hf	Ta	W	Ti	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.05	0.1	0.04	0.2	0.1	1	0.1	5	0.1	0.1
Method Code	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
NIST 694 Meas										
NIST 694 Cert										
DNC-1 Meas										
DNC-1 Cert										
SY-4 Meas	2.23	14.9	2.21	10.2	0.8			12		0.7
SY-4 Cert	2.3	14.8	2.1	10.6	0.9			10		0.8
BIR-1a Meas		1.7		0.6				<5		
BIR-1a Cert		1.7		0.60				3		
ZW-C Meas					82.6	32.7	33.8			19.2
ZW-C Cert					82	320	34			20.0
OREAS 101b (Fusion) Meas	2.63	17.0	2.55						36.0	400
OREAS 101b (Fusion) Cert	2.66	17.6	2.58						37.1	396
NCS DC86318 Meas	258	1710	244						65.2	
NCS DC86318 Cert	271	1844	264						67.0	
NCS DC86318 Meas	258	1710	244						65.2	
NCS DC86318 Cert	271	1844	264						67.0	
SARM 3 Meas										
SARM 3 Cert										
USZ 25-2006 Meas								994	<0.1	
USZ 25-2006 Cert								1100	218	
USZ 42-2006 Meas		17.5						1520	927	
USZ 42-2006 Cert		17.85						1600	946	
REE-1 Meas	110	698		467					760	143
REE-1 Cert	106	678		479					719	137
LD-10B Orig	0.36	2.2	0.34	18.8	0.7	<1	0.6	30	49.7	2.2
LD-10B Dup	0.32	2.1	0.34	16.7	0.7	<1	0.6	37	47.9	2.0
36964 Orig	0.62	3.6	0.58	37.1	0.6	<1	0.3	19	304	4.6
36964 Dup	0.62	3.5	0.53	37.9	0.6	<1	0.4	20	314	4.6
Method Blank	<0.05	<0.1	<0.04	<0.2	<0.1	<1	<0.1	<5	<0.1	<0.1
Method Blank										
Method Blank										