# GM 68237

TECHNICAL REPORT ON THE SPODUMENE RESOURCES ON THE JAMES BAY LITHIUM PROJECT



Cette première page a été ajoutée au document et ne fait pas partie du rapport tel que soumis par les auteurs.



# **TECHNICAL REPORT**

#### **ON THE**

### **SPODUMENE RESOURCES**

# **ON THE**

# James Bay Lithium Project,

# Eastmain River, James Bay, Quebec, Canada

**ON BEHALF OF** 

# LITHIUM ONE INC.

#### 2700-130 Adelaide Street West Toronto, Ontario M5H 3P5

# Report for NI 43-101

#### BY:

### G. S. CARTER, P. ENG.

Ressources naturelles et Faune, Québes

0 3 JUIL. 2014

Service de la Géoinformation

November 10, 2009

# **BROAD OAK ASSOCIATES**

REÇU AU MRNF

26 MARS 2014

DIRECTION DES TITRES MINIERS

GM 68237

James Bay Lithium Project

365 Bay Street Suite 304 Toronto, Ontario Canada, M5H 2V1

·1

139417

# **TABLE OF CONTENTS**

1.0	Title Page	1
2.0	Table of Contents	2
3.0	Summary	3
4.0	Introduction and Terms of Reference	4
5.0	Reliance on Other Experts	5
6.0	Property Description and Location	5
7.0	Accessibility, Climate, Local Resources, Infrastructure,	
	and Physiography	11
8.0	History	12
9.0	Geological Setting	14
10.0	Deposit Types	18
11.0	Mineralization	19
12.0	Exploration	19
13.0	Drilling	19
14.0	Sampling Method and Approach	40
15.0	Sample Preparation, Analysis, and Security	41
16.0	Data Verification	42
17.0	Adjacent Properties	43
18.0	Mineral Processing and Metallurgical Testing	43
19.0	Mineral Resource and Mineral Reserve Estimates	43
20.0	Other Relevant Data and Information	43
21.0	Interpretation and Conclusions	43
22.0	Recommendations	44
23.0	References	46
24.0	Date and Signature Page	47
25.0	Additional Requirements for Technical Reports	
	on Development Properties and Production Properties	49
26.0	Illustrations	49
Conser	nt of Author	50
James	Bay Lithium Project 2	Broad Oak Associates

# 3.0 Summary

Lithium One Inc. ("Lithium One" or "Company") is the successor company to Coniagas Resources Limited ("Coniagas"). Lithium One is a Canada based resource company whose focus is to explore and develop mineral deposits throughout the Americas, with a particular focus on Lithium. They are listed on the TSX Venture Exchange under the symbol LI. Coniagas was created in 1906 as it was active in the Cobalt silver camp of Ontario. Lithium One's other principal asset is the Sal de Vida lithium brine project in Northwest Argentina. The Company also has a small portfolio of non-lithium projects, including a 40% equity ownership with St. Andrew Goldfields Limited, in a joint venture to explore certain mineral claims in Garrison, Michaud and Guibord townships in Ontario. They also own a 100% interest in the former producing (but currently inactive) Nudulama (Missanabie Mine) property in the Wawa region of Ontario.

On November 5, 2007, Lithium One announced the signing of a Letter of Intent ("LOI") with Societe De Developement de La Baie James ("SDBJ") and others to explore and develop mining claims located near Mattagami, Quebec. The option is to acquire a 100 per cent interest in the property. Under the terms of the LOI, Lithium One paid \$60,000 and issued 500,000 common shares to the Optionor. On both, the first anniversary of the LOI, Lithium One paid 1,000,000 common shares, and on the second anniversary a further 1,000,000 totalling 2,000,000 after two years. On the third anniversary date of the LOI, if the value of said 2,500,000 shares, based on the weighted average trading price of the last 20 trading days preceding the date of issue of such shares is less than \$5 million, Lithium One will pay the difference in cash to the Optionor. Lithium One has granted a 2% NSR royalty on the project, but retain the right to purchase half of this royalty for a cash payment of \$1 million within one year of the completion of a positive feasibility study.

The SDBJ claims and the Robert & Frigon claims were first staked in 1966 by Mr J. Cyr and were optioned by SDBJ in 1974, who after conducting some exploration on the property, returned it to Mr. Cyr. Prior to this, Mr. Cyr first discovered spodumene pegmatite outcrops on the property in 1964.

There had been little modern exploration conducted on the property, until Lithium One started drilling in 2008, but significant trenching and drilling was completed in the late 1970's. In 1989, G.J. Boisvert, P. Eng., wrote a summary of the Mineral Potential of the James Bay Lithium Project (previously known as the Cyr Lithium Prospect) and stated, "Past mapping has outlined 45,000 square metres of outcrop exposure and the systematic sampling of 75% of the pegmatite outcrops has indicated an average grade of 1.7% Li<sub>2</sub>0. This would imply outcrop defined lithium reserves at 121,500 tonnes per vertical metre, grading at 1.7% Li<sub>2</sub>0. Based on these figures, a hypothetical deposit with a depth of only 100 metres would contain in excess of 12 million tonnes of lithium ore." This was the only historical estimate given from exploration carried out before Lithium One started drilling in 2008.

The Company's drilling in 2008 and 2009 confirmed the presence of wide pegmatite intersections, numerous swarms over several hundred metres of lateral extent, and about

1 kilometre in strike length to a depth of 100 to 150 metres. Data available to date suggests that the pegmatite is of magmatic origin and is granitic in composition.

Some of the intersections graded over 2% Li<sub>2</sub>0 and were over 10 metres in true width during the 2009 drilling program. Once the data have been entered into an appropriate computer program and subjected to the proper Geostatistical analysis and modelling a NI 43-101 compliant resource can result and can be reported.

The historical data along with the 2008 and 2009 drilling programs would suggest that a significant pegmatite resource may exist on the property. The grade of the deposit has been relatively consistent at 1.5% to 1.9% Li<sub>2</sub>O since the first reports in the 1970's as well as the drilling conducted by Lithium One. Such a grade is higher than the average for this type of deposit. This potential large target at the James Bay Lithium Project is conceptual in nature, tonnage and grade are uncertain due to insufficient exploration data. It is uncertain if further drilling will result in the target being delineated as a mineral resource.

All resource estimates quoted herein are based on data and reports obtained and prepared by previous operators. This historic resource estimate is considered to be relevant, and is believed to be reliable based on the amount and quality of historic work completed. The Company has not completed the work necessary to independently verify the classification of the mineral resource estimates. Neither Broad Oak nor the Company are treating the mineral resource estimates as National Instrument 43-101 defined resources verified by a qualified person. The historical estimates should not be relied upon. The properties will require considerable further evaluation which the Company's management and consultants intend to carry out in due course.

# 4.0 Introduction and Terms of Reference

Broad Oak Associates ("Broad Oak") was engaged by Lithium One Incorporated to provide an independent technical report. This report was prepared under the direction of Geoffrey S. Carter P. Eng. a principal of Broad Oak and a Qualified Person. On November 8, 2007 and August 11-12, 2009, site visits were made by Geoffrey S. Carter and Kristine E. Dunstan. During the visits the drill hole locations were observed along with the some of the historical percussion drill holes. Five sections of core were quartered and sent out for analysis. The extensive data base that Lithium One has assembled in their offices has been made fully available to Broad Oak.

Lithium One has provided Broad Oak, as of the date of this report, with a Certificate of Representation, from Mr. Patrick Highsmith, President and C.E.O. and Mr. A. James McCann, Consulting Exploration Manager, who is a Qualified Person.

# 5.0 Reliance on Other Experts

Broad Oak relied upon Lithium One and their corporate counsel for information regarding the current status of legal title of the property, property agreements, corporate structure, permits and any outstanding environmental orders.

# 6.0 Property Description and Location

This prospect is located in the west-central part of Township No. 2312 in North-western Quebec. It is 2 kilometres south of the Eastmain River and 100 kilometres east of James Bay. The property is readily accessible by paved road as the highway cuts through the property close to road marker kilometre 381. The road marker kilometre 381 means that they are located road wise, 381 kilometres from Mattagami where there is an airport and mining infrastructure.

The James Bay Lithium project is located 1,850 road kilometres from Montreal and 1,650 road kilometres from Québec City. Chibougamau is 512 kilometres from the property, a 6 hours drive via the "Route du Nord", while Matagami is 381 kilometres due south for a 4 hour drive. The Relais Routier 381 (about 500 metres from the property) is an SDBJ owned and operated establishment providing services such as room & board, fuel, electricity and telephone by prepaid card (Telebec).

The topography of the property is gently rolling to more flat lying. Much of the property is covered by muskeg. Outcrops are common in this area and they usually correspond to mounds or ridges above the surrounding plain. The property lies in the north-eastern part of the Superior geological province within the Eastmain greenstone belt.

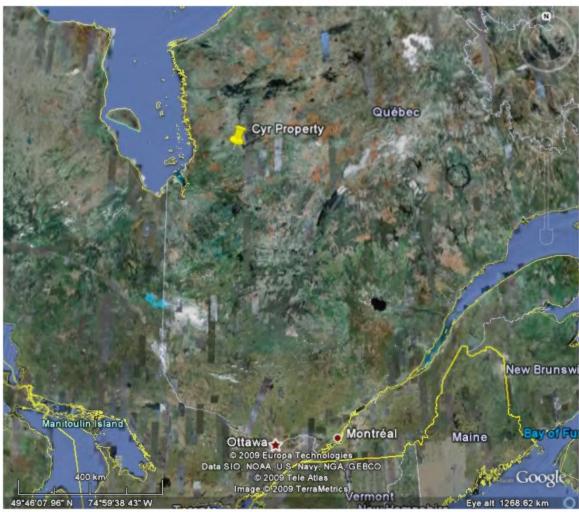


Fig. 1, Property Location

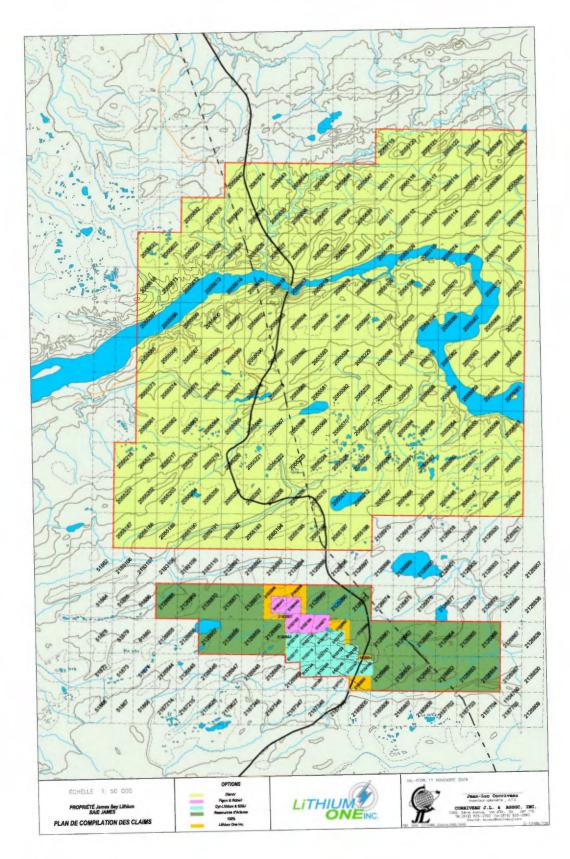


Fig. 2, Claim Location Map

Lithium entered into an agreement with Societe de Development de la Baie James and others on March 29, 2008. The terms of the agreement are as follows;

- a) A non-refundable cash payment of \$60,000 (completed)
- b) 500,000 free trading common shares of Lithium One (completed)
- c) Two further payments of 1,000,000 free trading shares each (four month hold) with the first payment occurring in October 2008 (completed) and the second payment scheduled for October 2009 but deferred until April 2010 for consideration of cash payment of \$25,000 (completed).
- d) On the third anniversary of the LOI in 2010, if the value of the 2,500,000 shares mentioned above, based on the weighted average trading price of the last 20 days is less than \$5,000,000, Lithium One shall pay in cash the difference.
- e) There is a Royalty of 2% NSR of which the Company can purchase half (1%) of this Royalty for \$1,000,000.

On May 14, 2009 Lithium One entered into an agreement with Jacques Frigon and Gerard Robert, the details of which are stated below;

- a) Lithium One will acquire 100% interest in the Frigon property by paying \$32,000 (completed)
- b) 100,000 common shares of the Company (completed)
- c) 4 annual payments of \$25,000 and 100,000 common shares
- d) A 1.5% NSR on the project. Lithium One will have the right to repurchase at any time one third (0.5%) of this Royalty for a cash payment of \$500,000

On May 18, 2009, Lithium entered into an agreement with Dianor Resources Inc for only the lithium rights on the property, the details of which are stated below;

a) Lithium One will acquire 100% interest in 196 claims on the Ekomiak 6 property for a 1.5% NSR on any lithium produced from the property

On June 9, 2009, Lithium One entered into an Agreement with Arianne Resources Inc., the details of which are stated below;

- a) Lithium One will acquire 100% in all the mineral substances on the mining claims and lithium only on four mineral claims.
- b) \$75,000 paid in cash (completed)
- c) A total of 500,000 common shares over a five year period. The first 100,000 is completed and all are subject to a four month hold
- d) They retain a 1.5% NSR of which one third (0.5%) can be purchased by Lithium One for a cash payment of \$500,000.

#### Details of all claims except Dianor JAMES BAY LITHIUM

Cyr-SDBJ	owner	%	# 5132116	(hc) 14.91	registration	<u>expiration</u>	work required		
(option)	J. Cyr et all.	83.75			24-Feb-95	23-Feb-11	\$1,000	\$	-
	SDBJ	16.25	5132117	15.38	24-Feb-95	23-Feb-11	\$1,000	\$	-
			5132118	15.99	24-Feb-95	23-Feb-11	\$1,000	\$	-
			5132119	13.85	24-Feb-95	23-Feb-11	\$1,000	\$	-
			5132120	15.20	24-Feb-95	23-Feb-11	\$1,000	\$	-
			5132121	15.93	24-Feb-95	23-Feb-11	\$1,000	\$	59,668.05
			5132122	14.64	24-Feb-95	23-Feb-11	\$1,000	\$	111,330.00
			5132123	14.66	24-Feb-95	23-Feb-11	\$1,000	\$	
			5132125	14.14	24-Feb-95	23-Feb-11	\$1,000	\$	11,133.00
			5132142	16.07	24-Feb-95	23-Feb-11	\$1,000	\$	
			5132144	16.55	05-Jun-95	04-Jun-11	\$1,000	\$	
			5132146	16.30	05-Jun-95	04-Jun-11	\$1,000	\$	11,133.00
			5132147	15.65	05-Jun-95	04-Jun-11	\$1,000	\$	11,133.00
			5132148	17.15	05-Jun-95	04-Jun-11	\$1,000	\$	-
total: JAMES BAY LITHIUM			14	216.42					
	owner	%	#	(hc)	registration	<u>expiration</u>	work required		
Frigon & Robert (option)	Jacques Frigon Gerard	50	5144671	20.38	31-Jul-95	30-Jul-11	\$1,000	\$	•
	Robert	50	5152193	17.96	23-Jan-96	22-Jan-12	\$1,000	\$	148.65
			5152194	19.01	23-Jan-96	22-Jan-10	\$1,000	\$	209.31
			5186441	18.12	25-Sep-97	24-Sep-11	\$1,000	\$	
			5186442	17.19	25-Sep-97	24-Sep-11	\$1,000	\$	_
total:			5	92.66					
JAMES BAY LITHIUM									
D	owner	%	#	(hc)	registration	<u>expiration</u>	work required		
Ressources d'Arianne (option)		100	CDC2126850	52.78	04-Oct-07	03-Oct-11	\$450	\$	421.32
(Bold Italics+ LI- only)			CDC2126851	52.78	04-Oct-07	03-Oct-11	\$450	\$	421.32
			CDC2126852	52.78	04-Oct-07	03-Oct-11	\$450	\$	421.32
			CDC2126853	52.78	04-Oct-07	03-Oct-11	\$450	\$	421.32
			CDC2126854	52.78	04-Oct-07	03-Oct-11	\$450	\$	421.32
			CDC2126857	52.77	04-Oct-07	03-Oct-11	\$450	\$	421.32
			CDC2126857 CDC2126858	52.77 52.77	04-Oct-07 04-Oct-07	03-Oct-11 03-Oct-11	\$450 \$450	\$ \$	421.32 421.32

James Bay Lithium Project

CDC2126860	52.77	04-Oct-07	03-Oct-11	\$450	\$ 421.32
CDC2126861	52.77	04-Oct-07	03-Oct-11	\$450	\$ 421.32
CDC2126862	52.77	04-Oct-07	03-Oct-11	\$450	\$ 421.32
CDC2126863	52.77	04-Oct-07	03-Oct-11	\$450	\$ 421.32
CDC2126864	52.77	04-Oct-07	03-Oct-11	\$450	\$ 421.32
CDC2126865	52.77	04-Oct-07	03-Oct-11	\$450	\$ 421.32
CDC2126866	52.77	04-Oct-07	03-Oct-11	\$450	\$ 421.32
CDC2126868	52.76	04-Oct-07	03-Oct-11	\$450	\$ 421.32
CDC2126869	52.76	04-Oct-07	03-Oct-11	\$450	\$ 421.32
CDC2126870	52.76	04-Oct-07	03-Oct-11	\$450	\$ 421.32
CDC2126871	52.76	04-Oct-07	03-Oct-11	\$450	\$ 421.32
CDC2126872	52.76	04-Oct-07	03-Oct-11	\$450	\$ 421.32
CDC2126873	51.91	04-Oct-07	03-Oct-11	\$450	\$ 421.32
CDC2126986	49.98	04-Oct-07	03-Oct-09	\$135	\$ 546.45
CDC2126988	45.88	04-Oct-07	03-Oct-09	\$135	\$ 546.45
CDC2126989	44.26	04-Oct-07	03-Oct-09	\$135	\$ 546.45
CDC2126990	51.91	04-Oct-07	03-Oct-09	\$135	\$ 546.45

25 1299.34

#### JAMES BAY LITHIUM owner % # (hc) registration <u>expiration</u> work required LITHIUM CDC McGEO-Claims ONE 100 2183503 16-Jun-09 15-Jun-11 \$48 \$ 22.41 CDC 2183504 3.51 16-Jun-09 15-Jun-11 \$48 \$ . CDC 2183505 18.51 16-Jun-09 15-Jun-11 \$48 \$ CDC 2183506 36.08 16-Jun-09 15-Jun-11 \$120 \$ CDC 2183507 0.33 16-Jun-09 15-Jun-11 \$48 \$ -CDC 2183508 \$48 \$ 24.94 16-Jun-09 15-Jun-11 \_ CDC 2192842 1.83 27-Oct-09 28-Oct-11 7 107.61 total: **GRAND TOTAL** 51.00 1716.03

There are no known environmental issues on these properties.

# 7.0 Accessibility, Climate, Local Resources, Infrastructure and Physiography

The property is readily accessible by paved road as the highway cuts through the property close to road marker kilometre 381. The road marker kilometre 381 means that they are located road wise, 381 kilometres from Mattagami where there is an airport and mining infrastructure. The property can be accessed by aircraft with an airstrip only 15 kilometres away. There is a large truck stop, the Relais Routier gas station, located approximately 3 kilometres from the property with helicopter access. Fuel, electricity, motel, and restaurant services are all available here.

The climate conditions can be variable from day to day, according to the seasons, but basically the winter season can start in late October and can continue until April. The winter temperatures can range from 5°Celsius to as low as -45°Celsius which is combined with a great deal of snow cover. During the summer months, the temperature can range from 15°- 35°Celsius with moderate rainfall and the occurrence of thunderstorms during exceptionally hot weather.

The Canadian Shield covers over 95% of Quebec, and contains some of the oldest igneous rocks in the world, dating back to the Precambrian period, over 1 billion years ago. The Canadian Shield is generally quite flat and exposed, punctuated by the higher relief of mountain ranges such as the Laurentians in southern Quebec, the Otish Mountains in central Quebec and the Torngat Mountains near Ungava Bay. The topography of the Shield has been shaped by glaciers, which explains the glacial deposits of boulders, gravel and sand, and by postglacial seawater and lakes which left thick clay deposits on some parts of the Shield. The Canadian Shield also has an intricate hydrological network of over a million lakes, peat bogs, rivers and streams.

The property is located 2 kilometres from the Eastmain River which has a length of approximately 600 kilometres and flows westward. Just above the mouth of the river is one of the oldest Hudson's Bay Company posts that was founded in 1685. The river separates approximately 40 kilometres from its mouth and divides into two branches that are frequently interrupted by rapids and falls with one of the falls being 120 feet high. There are two hydro-electric stations (one is still under construction) located on the Eastmain River. The Eastmain-1 reservoir is 35 kilometres long with a total area of 603 square kilometres.

The boreal forest is the most northerly and abundant of Quebec's three forest zones and straddles the Canadian Shield and upper Lowlands regions of the province. Dominated by black spruce and carpets of moss, the ecology of this zone is heavily influenced by fire disturbance regimes, meaning that forest fires are extremely important in defining the numbers of, and relationships between, living organisms in this zone. Because of the milder climate, the diversity of organisms is also higher, with approximately 850 plant species and 281 vertebrates found here, including the Canada lynx and American marten. The boreal forest covers 27% of Quebec.

# 8.0 History

This property was first staked in 1966 by Mr J. Cyr and was optioned by SDBJ in 1974, who after conducting some exploration on the property, returned it to Mr. Cyr on June 10, 1986. Prior to this, Mr. Cyr first discovered spodumene pegmatite outcrops on the property in 1964.

A consultant, Mr. G. Valiquette, prepared a preliminary evaluation report on the property in 1974. This report described a ridge-like occurrence of spodumene pegmatite dyke outcrops that rose 15 metres above the surrounding swamp and extended for approximately 500 metres. The four test pits where Mr. Cyr collected samples yielded the following lithium assays;

Pit Number 1	2.34% Li <sub>2</sub> 0
	3.35% Li <sub>2</sub> 0
Pit Number 2	4.42% Li <sub>2</sub> 0
	3.62% Li <sub>2</sub> 0
Pit Number 3	3.58% Li <sub>2</sub> 0
	3.28% Li <sub>2</sub> 0
Pit Number 4	0.86% Li <sub>2</sub> 0

Starting in 1974, SDBJ conducted an exploration program that consisted of geological mapping, systematic sampling and diamond drilling of the mineralized outcrops to evaluate the lithium potential of the property. The mapping defined an area of 45,000 square metres of outcropping spodumene dykes. According to a 1977 report by SDBJ, the pegmatites contain 25% spodumene. The dykes reportedly dip at 65° and the potential of the outcropping area has been estimated at 121,500 tonnes per vertical metre. The geological mapping suggested a possible extension of the spodumene pegmatites into an irregular east-west trending "corridor" 4 kilometres in length with lenses or sill-like bodies up to 300 metres in length.

Three diamond drill holes, totalling 383 metres, were completed on the property in 1977 and these confirmed the presence of spodumene mineralization to a depth of approximately 100 metres. The three holes were drilled along the axis of the "corridor", across the pegmatite lenses, and they intersected a sequence of inter-layered spodumene pegmatite and biotite schist. The pegmatite contained up to 35% spodumene locally and several lithium oxide intersections were reported.

The table below highlights only the main lithium (Li<sub>2</sub>O) intersections obtained from that program.

Hole number and Depth	Main Li2O values	Depth	% pegmatite from total core
77-2 (498')151.80m	1.92% Li2O / 33.92m	17.19 -51.11 m	53% pegmatite*
	1.62% Li2O / 11.98m	63.03 -75.01 m	
	2.00% Li2O / 23.26m	83.94 -107.20 m	

Main Li<sub>2</sub>O values intersected in the three drill holes of 1977

	1.76% Li2O / 11.09m	107.96 -119.05m	
77-3 (345')105.16m	1.78% Li2O / 23.20m	61.17 -84.37 m	34% pegmatite*
""	2.12% Li2O / 7.80m	92.63 -100.43 m	
77.4 (412')125.58m	1.45% Li2O / 17.25m	28.68 -45.93 m	36% pegmatite*
" "	2.00% Li2O / 4.82m	48.22 -53.04 m	
" "	1.73% Li2O / 8.20m	57.61 -66.05 m	
	2.24% Li2O / 4.54m	92.99 -97.54 m	

\*The values reported above were recalculated by James McCann in 2008.

The average grade obtained from the 277 powder samples recovered by SDBJ in 1974 was found to be  $1.7 \pm 0.1$  weight % Li<sub>2</sub>O (95% confidence limits), the standard deviation being 0.8% Li<sub>2</sub>O. The SDBJ analyses also indicated low concentrations of beryllium (<200 ppm), cesium (<100 ppm), niobium, and tantalum.

In 1975, SDBJ, produced a geological map of the property which indicated typical rock types for greenstone belts of the northern Superior Province: biotite schists, gneiss, mafic metavolcanics, dacites, quartzites, meta-conglomerates, meta-gabbros, granites and pegmatites. The pegmatite occurs as northwest to northeast trending irregular dykes or lenses which are inter-layered with biotite schist and greenstone inclusions. The spodumene occurs as bladed crystals with lengths varying from a few centimetres to over a metre.

In 1989, G.J. Boisvert, P. Eng., wrote a summary of the Mineral Potential of the James Bay Lithium Project and stated;

"Past mapping has outlined 45,000 square metres of outcrop exposure and the systematic sampling of 75% of the pegmatite outcrops has indicated an average grade of 1.7% Li<sub>2</sub>0. This would imply outcrop defined lithium reserves at 121,500 tonnes per vertical metre, grading at 1.7% Li<sub>2</sub>0. Based on these figures, a hypothetical deposit with a depth of only 100 metres would contain in excess of 12 million tonnes of lithium ore.

Much of the property remains unexplored due to overburden cover, although past mapping has helped outline a possible extension of the spodumene pegmatite body over a 4 kilometre length and 300 metre width. Because of the very large dimensions involved, the potential reserves on this property could be in the order of 300 million tonnes or more.

Previous diamond drilling has confirmed the persistence of the spodumene mineralization at depth and across widths ranging up to 33.9 metres. This large extent of the mineralization could make this deposit amenable to open pit mining.

Preliminary metallurgical tests of the lithium ore are un-conclusive although they suggest that "ceramic" grade spodumene concentrates are achievable with little or no beneficiation treatment."

It should be noted that this report was completed before the implementation of NI 43-101 and therefore is not NI 43-101 compliant.

In 1978 Jean Bailly completed some preliminary economic modelling based on a 5 million ton 1.7% Li<sub>2</sub>0 deposit at a mining rate of 700 tons per day. Production was 13.5 million pounds of lithium carbonate annually. The modelling indicated that this would be economic at the time. However it should be noted the economic modelling was at the very early stages of this project, was completed 30 years ago, and although this data exists the author of the report believes this data to be irrelevant today.

Concentration tests and chemical analyses were conducted by Centre de Recherches Minerales du Quebec in 1975. A composite sample of the spodumene pegmatite grading 1.7% Li<sub>2</sub>0 yielded a 6.2% Li<sub>2</sub>0 concentrate with a recovery factor of 71%. Again although the data exists the author of the report believes this information is only marginally relevant today.

All resource estimates quoted herein are based on data and reports obtained and prepared by previous operators. This historic resource estimate is considered to be relevant, and is believed to be reliable based on the amount and quality of historic work completed. However the Company has not completed the work necessary to independently verify the classification of these mineral resource estimates. Neither Broad Oak nor the Company is treating the mineral resource estimates as National Instrument 43-101 defined resources verified by a qualified person. The historical estimates should not be relied upon. The properties will require considerable further evaluation which the Company's management and consultants intend to carry out in due course.

# 9.0 Geological Setting

REGIONAL GEOLOGY

The James Bay Lithium Project lies in the north-eastern part of the Superior geological province, within the Eastmain greenstone belt (Lower Eastmain Group) which consists predominantly of amphibolite grade mafic to felsic metavolcanics, metasediments and minor gabbroic intrusions. On the property we find metavolcanics of the Komo formation north of the pegmatite intrusions. The Auclair formation consists mainly of paragneisses probably of sedimentary origin, which surround the pegmatites from the north-west to the south-eastern extremities. The greenstones are surrounded by mesozonal to catazonal migmatites and gneiss of Archean Age (DPV-574 by A. Franconi-1978), & RG 2001-08 by A. Moukhsil et al.

The following excerpt was taken from the Abstract of the Geological and Metallogenic Synthesis of the Middle and Lower Eastmain Greenstone Belt: it is a good summary of the regional geologic setting and major mineralizing events. "The Middle and Lower Eastmain greenstone belt (MLEGB) is located in the James Bay region. Our goal is to present a synthesis and a geodynamic model for the Eastmain sector incorporating geological, metalogenic, geochronological and geochemical information.

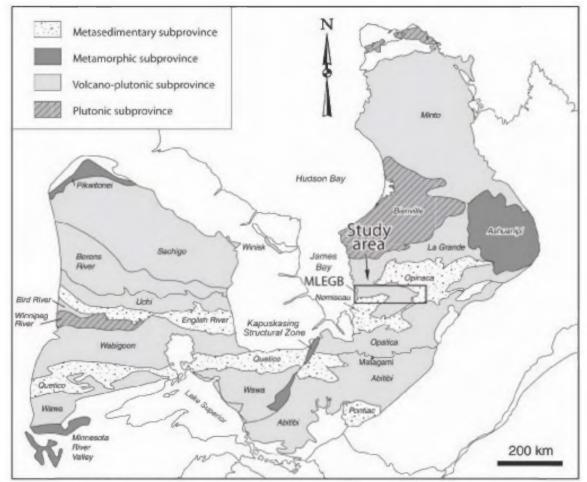


Fig. 3, Map of subdivisions of Superior Province

The region comprises an Archean volcano-sedimentary assemblage which is assigned to the Eastmain Group. This group is made up of komatiitic to rhyolitic volcanic rocks and a variety of sedimentary rocks. The assemblage is overlain by the paragneisses of the Auclair Formation (Nemiscau and Opinaca basins). The mineral occurrences are spatially related to the MLEBG and grouped in very specific areas.

In the Middle and Lower Eastmain sector, four volcanic cycles are recognized based on age 1) 2752 to 2739 Ma; 2) 2739 to 2720 Ma 3) 2720 to 2705 Ma and 4)<2705 Ma. Research on plutons allowed the identification of several suites (TTG, TGGM and TTGM) with emplacement episodes spanning the period 2747 to 2697 Ma. Around 2668 Ma, late intrusions of granodioritic to granitic composition that are locally pegmatic transected the Auclair Formation. A number of lithium and molybdenum showings are

associated with these late intrusions, which are attributed to a period of crustal extension.

The regional settings and the geochemical composition of the volcanic rocks of the Middle and Lower Eastmain belt suggest that the earliest volcanic formations are the product of volcanism associated with ocean floor spreading (i.e. mid-ocean ridges and/or oceanic platforms).

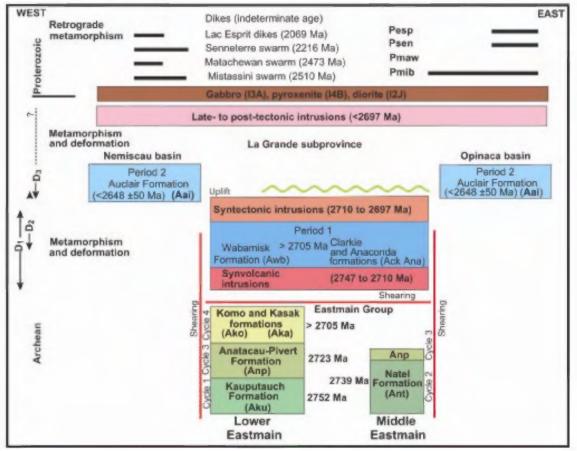


Fig. 4, Map representing the 3 Phases of Deformation

The period 2752 to 2720 Ma (stages 1 and 2) marks the construction of oceanic platforms and a few andesitic arcs. The calc-alkaline (1-type) plutonic rocks (TTG) are indicative of subduction zone magmatism occurring around 2747 Ma, although an episode of crustal thickening, followed by melting at the base of the crust, may explain the emplacement of a considerable array of batholiths up until 2710 Ma. The different types of synvolcanic mineralization reveal peak activity at specific stages of volcanic construction, that is, epithermal mineralization ~2751 Ma, volcanogenic massive sulphide mineralization between 2720 and 2739 Ma, and porphyry-type mineralization at ~2712 Ma.

Between 2697 and 2710 Ma (stage 4), a resurgence of syntectonic plutonism  $(D_1)$  occurred. After this period, crustal shortening (N-S) generated a number of regional

faults (E-W to ENE) and widespread uplifting. The destruction of volcano-plutonic assemblages is partly reflected in the deposition of conglomerates ( $D_2$ ). Orogenic-type gold occurrences are associated with these two deformation episodes; however, the most extensive zones of mineralization, such as the Eau Claire deposit and the mineral occurrences on the Auclair property, are related to the  $D_2$  event. Tectonic activity culminated with the formation of the Nemiscau and Opinaca basins (before 2700 Ma), which are associated with arc-extension periods."

# 9.1 Property Geology

The following is reproduced from "Report 2008 Diamond Drilling Program Cyr-Lithium property (33C/03) James Bay by Coniagas Resources Ltd." by A. James McCann November 20, 2008:

"The pegmatites found on the Cyr-Lithium property are located within the Lower Eastmain Group of the Eastmain River Greenstone Belt. A reconnaissance geological map of the property was produced by the SDBJ in 1975. Biotite schist and gneisses, together with mafic metavolcanics, dacites, quartzites, metaconglomerates, metagabbros, granites and pegmatites have been identified. Most of the non-intrusive rocks are well foliated, striking E-NE, and dipping subvertically; the granites and pegmatites have a more massive appearance. According to (Boisvert, 1989), "...the pegmatites are unzoned, except for the occasional presence of border zones a few centimeters thick occurring in contact with the host amphibolite."

Mapping by J. C. Potvin of SDBJ had identified 14 important dykes of spodumene (SDBJ: GEOLOGIE ET STRUCTURE MAPS, project 350-3610-010, Oct. '75). According to (Pelletier, 1977), "The individual bodies are mostly irregular dykes or lenses attaining up to 60 meters in width and over 100 meters in length. They cross-cut at a high angle the foliation and presumed bedding of the intruded rocks on a local and regional scale". And "These dykes strike most often N200E/600W, but may vary from north-east to north-west and generally show a westerly dip of 600 or steeper". The group of outcrops forms a discontinuous band or "corridor" approximately 4 km long by 300m wide striking N1030E, and cutting the host rock at a low angle. The pegmatites are generally perpendicular to the trend of the "corridor"; they form small hills reaching up to 30 meters above the surrounding swamps.

When speaking about pegmatites, the author (James McCann) means the descriptive definition for field identification as described by D. London (2008): "**pegmatite** is essentially an igneous rock commonly of granitic composition, that is distinguished from other igneous rocks by its extreme coarse but variable grain-size, or by an abundance of crystals with skeletal, graphic or other strongly directional growth habits. Pegmatites occur as sharply bounded homogeneous to zoned bodies within igneous or metamorphic host rocks." In general, hard-rock lithium deposits are in close relationship with granitic pegmatite dykes rich in spodumene and locally in lepidolite.

The mineralization belongs to the rare-element 'class', the LCT (Li-Cs-Ta) 'family' and the albite-spodumene 'type' according to the classification by Cerny (1991). In such pegmatites, some regional zonation of rare metals is generally observed resulting from a cogenetic intrusion Cerny (1991). Similar zonation is also observed around the La Motte and La Corne plutons, Abitibi area (Boily,1995; & Mulja et al. 1995). This zonation indicates an enrichment of the different rare metals in pegmatite dykes as a function of their distance from the cogenetic intrusion. In the case of the Cyr-Lithium deposit, spodumene-bearing pegmatites are likely the most differentiated dykes and the most distant from the cogetic intrusion located farther south, the Kapiwak Pluton (Moukhsil et al., 2001).

The crystal orientation of the spodumene laths can be used as a means to identify the orientation of the pegmatites; as the crystal laths are generally perpendicular to the dyke trend or long axis (Valiquette, 1974). (Pelletier, 1975) of the SDBJ suggested that the pegmatites intruded in radial fractures emanating from a centre located to the West. In his thesis, (Potvin, 1976) hypothesizes that the spodumene pegmatites are related to a granitic batholith located SW of the property. Spodumene occur as white to greenish prismatic and striated crystals varying from a few millimeters to over 1 meter in length. When altered, sericite forms on the surface of the spodumene and as it progresses, the colour changes to brown from the increasing iron oxides adhering to the surface. Spodumene can also alter to a Li-bearing mica in platy aggregates pseudomorphs after spodumene. Micropbobe analyses reveal the Cyr-Lithium spodumene with the following formula (Li0.99Na0.01)AlSi2O6, with an iron content of 0.96% (Total Fe2O3). Work by the SDBJ identified the major minerals of the spodumene pegmatites in decreasing order of abundance as: perthitic feldspar, spodumene (25%), quartz, muscovite, apatite, beryl, iron oxides, ilmenite, serpentine, tourmaline (?) and ferri-sicklerite or lithiophilite (Li (Mn, Fe) PO4). In 1974, Valiquette revealed that pale green muscovite contained 0.18% *Li2O*.

# **10.0 Deposit Types**

The data available suggests that this is a typical pegmatite of igneous origin having a granitic composition. The abundance of lithium puts this pegmatite in the LCT (Li-Cs-Ta) 'family' and the albite-spodumene 'type' according to the classification by Cerny (1991).

Pegmatites are formed when the main magma body cools beneath the crust. Water initially present may become enriched in light elements such as Li, B & Be When this mineral enriched water is expelled from the magmatic body it solidifies to form a pegmatite.

As this is a lithium rich pegmatite, several interpretations would suggest that there has been little erosion of this pegmatite as lithium is generally found in the upper portions of the pegmatite.

# **11.0 Mineralization**

The name spodumene was derived from the Greek spodumenos which means "burnt to ash", which refers to the light grey colour of spodumene. Spodumene is composed of Lithium (8.03% Li<sub>2</sub>O), Aluminum (27.40% Al<sub>2</sub>O<sub>3</sub>), and Silicon (64.58% SiO<sub>2</sub>) and Oxygen (51.59% O).

Spodumene is a lithium aluminum silicate and is a principle source of lithium. It is a relatively rare pyroxene found in lithium rich granite pegmatites. Its occurrence is associated with quartz, microcline, albite, muscovite, lepidolite, tournaline and beryl. Gem spodumene occurs rarely in a crystal form that can be colourless or can be yellow, pink, and green and in extremely rare light blue colour. The colour in these gems is due to impurities substituting for aluminum in the crystal structure. Iron produces yellow to green coloured spodumene, chromium produces deep green coloured spodumene, and manganese produces pink to lilac spodumene. Spodumene is recognized by its prismatic cleavage, crystal habit, striated prisms, colour, fracture and by its pegmatitic occurrence. Spodumene is a major source of lithium. The perfect cleavage of spodumene makes it more difficult to facet.

The major minerals of the spodumene pegmatites are, in decreasing order of abundance: perthitic feldspar, spodumene (25%), quartz, and muscovite. Minor or trace amounts of the following minerals are locally observed: apatite, beryl, iron oxides, ilmenite, serpentine, tourmaline, and feri-sicklerite or lithiophilite.

# **12.0** Exploration

Lithium One has conducted the exploration diamond drilling given in section 13 of this report. It has also located some of the historical data points and has done extensive geological mapping of the immediate area surrounding the drilling. Some geophysics has indicated resistivity anomalies, and in 2009 line cutting established a significant grid on the property.

# 13.0 Drilling

# 2008 Drill Program and Interpretation

In September 2008, Lithium One commenced with their 18 hole diamond drill program with drill holes spaced at 100 metres apart. Due to a highly accentuated topography, large variations exists in the spacing; maintaining a constant distance between holes was near impossible with the size of drill that the Company had.

All the drill holes of the 2008 program have been geo-referenced using a GPS (model Garmin 60-csx); the coordinates are summarized in the following table;

HOLE #	DATUM	NAD83	Elevation
	mN	mE	(m )
CL-08-01	5789148	359064	239 m
CL-08-02	5789108	359027	238 m
CL-08-03	5789134	358967	246 m
CL-08-04	5789165	358885	244 m
CL-08-05	5789254	358905	242 m
CL-08-06	5789265	358957	235 m
CL-08-07	5789275	358857	239 m
CL-08-08	5789218	358802	249 m
CL-08-09	5789252	358691	244 m
CL-08-10	5789307	358720	241 m
CL-08-11	5789372	358662	221 m
CL-08-12	5789258	358595	233 m
CL-08-13	5789362	358493	228 m
CL-08-14	5789416	358519	190 m
CL-08-15	5789382	358415	195 m
CL-08-16	5789465	358396	229 m
CL-08-17	5789456	358312	225 m
CL-08-18	5789341	358547	237 m
Background elev. (H2O pump)			211 metres

Summary of UTM (NAD27) Co-ordinates for Drill Holes CL08-01 to 18

In its original concept, the 18-hole diamond drilling program had been planned as a rectangular grid consisting of two parallel lines of 9 holes each, set at a 50 metre spacing between holes. This would have covered an area of 50 000 metres<sup>2</sup> or 5 hectares; 500 metres of strike length of "corridor" would have been evaluated. This original concept was modified 'on site' so that more ground could be investigated and possibly more tonnage of pegmatite asserted; knowing the increasing risk of not hitting the target with a larger spacing between holes by doing so. Therefore, 100 metre spacing was adopted and executed. The area covered increased to 180 hectares and the strike length investigated by the drilling reached 900 metres.

Hole #	Major Dyke #	Grade of Interval	Pegmatite Interval	Width Of Intercept	Dip of Dike
		(Li <sub>2</sub> O %)			
		Average	Intercept (m)	True width	degrees
				(interpreted)	U
CL08-01	5.2	1.48	29.50-37.30	3.8 m	60 W
CL08-02	5.4	1.42	46.75-47.25	0.3 m	68 W
		1.72	56.63-60.63	1.8 m	
CL08-04	7.2	1.40	0.50-13.30	>8 m	52 W
CL08-05	7.2	1.38	7.06-21.84	>8.7 m	58 W
CL08-06	6.2	0.43	28.35-31.14	1.0 m	61 W
		0.32	36.46-39.31	1.9 m	
CL08-07	7.4	1.37	4.10-16.60	5.6 m	64 W
CL08-08	7.5	1.49	4.43-24.91	11.0 m	61 W
	7.4	1.34 1.21	29.92-31.84	5.0 m 2.0 m	61 W
			46.98-51.22		
CL08-09	8.3	1.20	0.00-8.28	>5 m	70 W
		1.41	10.48-14.05	1.8 m	
CL08-10	8.3	1.56	0.10 - 5.35	>2.5 m	70W
CL08-11	8.5	1.90	14.12-19.00	2.5 m	52 W
CL08-12	8.5	1.55 1.71	33.20-44.89	8.3 m 3.0 m	52 W
			48.24-52.71		
		1.22	or 33.20-52.71	12.0	
CI 09 14	0.2	1.32	0.15 0.15	13.0 m	62 W
CL08-14	9.2	1.47	0.15 -9.15	>6 m	62 W
CL08-15	10.1	1.69	0.00 -11.85	>4 m	77 W
CL08-16	10.3	1.89	0.00 -8.93	>6 m	58 W
CL08-17	11	1.74	0.00 -23.68	>14.0 m	52 W
CL08-18	8.7	1.69	18.21-38.60	18.0 m	70 W
	8.6	1.97	50.62-62.86	10.5 m	70 W
	8.4 or 8.5	2.04	96.27 -100.68	7.5 m	53 W

# Assay Results (Li<sub>2</sub>O %) & Interpretation of Major Dykes

After analyzing the lithium results projected onto vertical sections; it appears that Dykes 5.4 and 6.2 are mainly minor Dykes separated by a xenolith of significant size.

# 2009 Drill Program and Interpretation

# Summary of UTM Co-ordinates for Drill Holes JBL09-1 to JBL09-84

COLLAR DATA 2009 DRILL HOLES - Map Datum: UTM Zone 18 (NAD 83)

SWARM # 7	Collar Data						
<u>Hole #</u>	<u>Azimuth</u>	<u>Dip</u>	<u>Depth (m)</u>	Zone	Easting	Northing	Elevation (m)
JBL09-01	110°	-45°	84.0	18 U	358816	5789160	239
JBL09-02	110°	-45°	66.0	18 U	358853	5789201	238
JBL09-03	110°	-45°	84.0	18 U	358870	5789245	237
JBL09-04	110°	-45°	59.0	18 U	358884	5789291	238
JBL09-05	110°	-45°	130.3	18 U	358784	5789300	231
JBL09-06	110°	-45°	149.7	18 U	358779	5789277	234
JBL09-07	110°	-45°	147.0	18 U	358765	5789227	238
JBL09-08	110°	-45°	153.1	18 U	358735	5789185	234
JBL09-09	110°	-80°	171.0	18 U	358784	5789300	233
JBL09-10	110°	-80°	164.6	18 U	358779	5789277	234
JBL09-11	110°	-80°	150.1	18 U	358764	5789225	238
JBL09-12	110°	-80°	164.8	18 U	358731	5789184	234
JBL09-13	110°	-45°	207.2	18 U	358642	5789118	222
JBL09-14	110°	-60°	156.0	18 U	358638	5789222	229
JBL09-15	110°	-60°	150.1	18 U	358680	5789258	235
JBL09-16	110°	-60°	160.0	18 U	358698	5789301	231
JBL09-17	110°	-60°	171.0	18 U	358723	5789354	224

SWARMS	Collar Data							
#8 & 9			Zone 18					
<u>Hole #</u>	Azimuth	Dip	<u>Depth (m)</u>	Zone	Easting	<u>Northing</u>	Elevation (m)	
JBL09-18	110°	-60°	155.6	18 U	358655	5789367	226	
JBL09-19	110°	-60°	206.9	18 U	358637	5789331	230	
JBL09-20	110°	-60°	210.0	18 U	358617	5789283	233	
JBL09-21B	110°	-60°	213.0	18 U	358577	5789245	230	
JBL09-22	110°	-45°	147.0	18 U	358515	5789222	226	
JBL09-23	110°	-80°	192.1	18 U	358541	5789340	230	
JBL09-24	110°	-45°	165.1	18 U	358555	5789389	223	
JBL09-25	110°	-80°	180.0	18 U	358555	5789389	224	
JBL09-26	110°	-60°	117.1	18 U	358546	5789439	216	
JBL09-27	110°	-45°	170.6	18 U	358498	5789296	228	
JBL09-28	110°	-80°	180.1	18 U	358498	5789296	228	
JBL09-29	110°	-60°	201.0	18 U	358441	5789280	226	
JBL09-30	110°	45	180.1	18 U	358358	5789258	222	
JBL09-31	110°	-50°	161.9	18 U	358473	5789436	215	
JBL09-32	110°	-75°	161.9	18 U	358472	5789441	220	
JBL09-33	110°	-45°	150.0	18 U	358448	5789402	221	

<b>JBL09-34</b>	110°	-75°	192.0	18 U	358448	5789402	221
JBL09-35	110°	-50°	150.0	18 U	358425	5789353	219
JBL09-36	110°	-75°	210.0	18 U	358425	5789353	219
JBL09-41	110°	-45°	180.0	18 U	358519	5789321	230
SWARMS #15	Collar Data						
<u>Hole #</u>	Azimuth	<u>Dip</u>	<u>Depth (m)</u>	Zone	Easting	Northing	Elevation (m
JBL09-42		-45°	144.0	18 U	357364	5789803	204
JBL09-43	160°	-45°	111.1	18 U	357380	5789898	203
JBL09-44	160°	-45°	80.8	18 U	357320	5789906	203
JBL09-45	160°	-45°	90.0	18 U	357277	5789885	207
JBL09-46	160°	-75°	156.2	18 U	357277	5789885	208
JBL09-47	160°	-75°	144.3	18 U	357226	5789861	208
JBL09-48	160°	-45°	81.0	18 U	357226	5789861	208
JBL09-49	160°	-75°	132.0	18 U	357186	5789833	205
JBL09-50	160°	-45°	81.0	18 U	357420	5789936	203
JBL09-51	160°	-75°	134.6	18 U	357420	5789935	204
		-75°	134.6	18 U	357420	5789935	204
SWARMS	160° Collar Data	-75°	134.6	18 U	357420	5789935	204
SWARMS #10 & 11	_ Collar Data						
SWARMS		-75°	134.6 Depth (m)	18 U	357420 Easting	5789935 Northing	Elevation (m
SWARMS #10 & 11	_ Collar Data						
SWARMS #10 & 11 <u>Hole #</u>	_ Collar Data	Dip	Depth (m)	Zone	Easting	Northing	Elevation (m
SWARMS #10 & 11 <u>Hole #</u> JBL09-37	Collar Data Azimuth 110°	<u>Dip</u> -80°	<u>Depth (m)</u> 165.0	<b>Zone</b>	Easting 358377	<u>Northing</u> 5789377	Elevation (m
SWARMS #10 & 11 <u>Hole #</u> JBL09-37 JBL09-38	Collar Data <u>Azimuth 110° 110° </u>	<b>Dip</b> -80° -80°	Depth (m) 165.0 170.8	<b>Zone</b> 18 U 18 U	Easting 358377 358397	Northing 5789377 5789417	Elevation (m
SWARMS #10 & 11 <u>Hole #</u> JBL09-37 JBL09-38 JBL09-39	Collar Data <u>Azimuth</u> 110° 110° 110°	<b>Dip</b> -80° -80° -80°	Depth (m) 165.0 170.8 143.9	<b>Zone</b> 18 U 18 U 18 U 18 U	<u>Easting</u> 358377 358397 358389	<u>Northing</u> 5789377 5789417 5789467	Elevation (m 225 226 222
SWARMS #10 & 11 Hole # JBL09-37 JBL09-38 JBL09-39 JBL09-40	Collar Data <u>Azimuth</u> 110° 110° 110° 110° 110°	<u>Dip</u> -80° -80° -80° -45°	Depth (m) 165.0 170.8 143.9 128.9	Zone 18 U 18 U 18 U 18 U 18 U	Easting 358377 358397 358389 358389 358342	Northing 5789377 5789417 5789467 5789441	Elevation (m 225 226 222 222 222
SWARMS #10 & 11 Hole # JBL09-37 JBL09-38 JBL09-39 JBL09-40 JBL09-52	Collar Data Azimuth 110° 110° 110° 110° 110° 110° 110°	<b>Dip</b> -80° -80° -80° -45° -45°	Depth (m) 165.0 170.8 143.9 128.9 87.0	Zone 18 U 18 U 18 U 18 U 18 U 18 U 18 U	Easting 358377 358397 358389 358342 358308	Northing 5789377 5789417 5789467 5789441 5789510	Elevation (m 225 226 222 222 213
SWARMS #10 & 11 Hole # JBL09-37 JBL09-38 JBL09-39 JBL09-40 JBL09-52 JBL09-53	Collar Data Azimuth 110° 110° 110° 110° 110° 110° 110° 110	Dip           -80°           -80°           -45°           -45°           -45°	Depth (m) 165.0 170.8 143.9 128.9 87.0 171.0	<b>Zone</b> 18 U 18 U 18 U 18 U 18 U 18 U 18 U 18 U 18 U	Easting 358377 358397 358389 358342 358308 358308 358305	Northing 5789377 5789417 5789467 5789441 5789510 5789510	Elevation (m 225 226 222 222 213 217
SWARMS #10 & 11 Hole # JBL09-37 JBL09-38 JBL09-39 JBL09-39 JBL09-52 JBL09-53 JBL09-54	Collar Data <u>Azimuth</u> 110° 110° 110° 110° 110° 110° 110° 110	Dip           -80°           -80°           -45°           -45°           -45°           -45°	Depth (m) 165.0 170.8 143.9 128.9 87.0 171.0 159.0	Zone 18 U 18 U 18 U 18 U 18 U 18 U 18 U 18 U 18 U 18 U	Easting 358377 358397 358389 358342 358308 358305 358305 358240	Northing 5789377 5789417 5789467 5789441 5789510 5789477 5789511	Elevation (m 225 226 222 213 217 217
SWARMS #10 & 11 Hole # JBL09-37 JBL09-38 JBL09-38 JBL09-39 JBL09-52 JBL09-52 JBL09-53 JBL09-54 JBL09-55	Collar Data Azimuth 110° 110° 110° 110° 110° 110° 110° 110	Dip           -80°           -80°           -45°           -45°           -45°           -45°           -45°           -45°           -70°	Depth (m) 165.0 170.8 143.9 128.9 87.0 171.0 159.0 135.0	Zone 18 U 18 U	Easting 358377 358397 358389 358342 358308 358308 358305 358240 358240	Northing 5789377 5789417 5789467 5789441 5789510 5789477 5789511 5789510	Elevation (m 225 226 222 213 217 217 217
SWARMS #10 & 11 Hole # JBL09-37 JBL09-38 JBL09-38 JBL09-39 JBL09-52 JBL09-52 JBL09-53 JBL09-55 JBL09-55 JBL09-56	Collar Data Azimuth 110° 110° 110° 110° 110° 110° 110° 110	Dip           -80°           -80°           -45°           -45°           -45°           -45°           -45°           -45°           -45°           -45°           -45°	Depth (m) 165.0 170.8 143.9 128.9 87.0 171.0 159.0 135.0 141.0	Zone 18 U 18 U	Easting 358377 358397 358389 358342 358308 358305 358240 358240 358240 358240	Northing 5789377 5789417 5789467 5789467 5789510 5789510 5789511 5789510 5789510	Elevation (m 225 226 222 213 217 217 217 217 217
SWARMS #10 & 11 Hole # JBL09-37 JBL09-38 JBL09-38 JBL09-39 JBL09-52 JBL09-53 JBL09-53 JBL09-55 JBL09-55 JBL09-56 JBL09-57	Collar Data Azimuth 110° 110° 110° 110° 110° 110° 110° 110	Dip           -80°           -80°           -45°           -45°           -45°           -45°           -45°           -45°           -45°           -45°           -45°           -45°           -45°           -45°           -45°	Depth (m) 165.0 170.8 143.9 128.9 87.0 171.0 159.0 135.0 141.0 107.8	Zone 18 U 18 U	Easting 358377 358397 358389 358342 358308 358305 358240 358240 358240 358240 358250	Northing 5789377 5789417 5789467 5789441 5789510 5789510 5789510 5789510 5789510 5789526	Elevation (m 225 226 222 213 217 217 217 217 217 217 207
SWARMS #10 & 11 Hole # JBL09-37 JBL09-38 JBL09-38 JBL09-39 JBL09-52 JBL09-52 JBL09-53 JBL09-55 JBL09-55 JBL09-56 JBL09-57 JBL09-58	Collar Data Azimuth 110° 110° 110° 110° 110° 110° 110° 110	Dip           -80°           -80°           -45°           -45°           -45°           -45°           -45°           -45°           -45°           -45°           -70°           -85°           -45°	Depth (m) 165.0 170.8 143.9 128.9 87.0 171.0 159.0 135.0 141.0 107.8 95.9	Zone 18 U 18 U	Easting 358377 358397 358389 358342 358308 358308 358305 358240 358240 358240 358250 358250 358251	Northing 5789377 5789417 5789467 5789441 5789510 5789510 5789510 5789510 5789510 5789526 5789527	Elevation (m 225 226 222 213 217 217 217 217 217 207 212
SWARMS #10 & 11 Hole # JBL09-37 JBL09-38 JBL09-38 JBL09-39 JBL09-52 JBL09-52 JBL09-53 JBL09-55 JBL09-55 JBL09-55 JBL09-57 JBL09-58 JBL09-59	Collar Data Azimuth 110° 110° 110° 110° 110° 110° 110° 110	Dip -80° -80° -45° -45° -45° -45° -45° -70° -85° -45° -75° -45°	Depth (m) 165.0 170.8 143.9 128.9 87.0 171.0 159.0 135.0 141.0 107.8 95.9 84.0	Zone 18 U 18 U	Easting 358377 358397 358397 358389 358342 358308 358305 358240 358240 358240 358250 358251 358251 358253	Northing 5789377 5789417 5789467 5789467 5789510 5789510 5789511 5789510 5789510 5789510 5789526 5789527 5789527 5789448	Elevation (m 225 226 222 213 217 217 217 217 217 207 212 222

SWARMS	Collar Data						
#12, 13 & 14							
<u> Hole #</u>	Azimuth	Dip	<u>Depth (m)</u>	Zone	<u>Easting</u>	Northing	Elevation (m)
JBL09-62	145°	-45°	147.0	18 U	357820	5789632	211
JBL09-63	145°	-45°	192.0	18 U	357855	5789671	211
JBL09-64	145°	-45°	91.7	18 U	357893	5789690	207
JBL09-65	145°	-45°	302.7	18 U	357820	5789717	212

1				1			
JBL09-66	145°	-45°	261.0	18 U	357782	5789693	214
JBL09-67	145°	-45°	195.0	18 U	357767	5789620	213
JBL09-68	145°	-45°	215.6	18 U	357713	5789611	212
JBL09-69	145°	-45°	150.3	18 U	357759	5789548	222
JBL09-71	145°	-45°	80.7	18 U	357790	5789491	225
JBL09-72	145°	-45°	141.2	18 U	357798	5789562	220
JBL09-73	145°	-45°	72.0	18 U	357838	5789516	222
JBL09-74	145°	-45°	123.0	18 U	357839	5789566	217
JBL09-75	145°	-45°	90.0	18 U	357913	5789573	218
JBL09-76	145°	-75°	146.9	18 U	357913	5789572	218
JBL09-77	145°	-45°	90.0	18 U	357950	5789616	213
JBL09-78	110°	-45°	93.0	18 U	358070	5789546	218
JBL09-79	110°	-45°	84.0	18 U	358047	5789495	219
JBL09-80	110°	-45°	96.0	18 U	358019	5789452	216
JBL09-81	110°	-45°	150.2	18 U	357923	5789424	216
JBL09-82	110°	-45°	165.0	18 U	357990	5789567	220
JBL09-83	110°	-45°	141.0	18 U	357985	5789510	220
JBL09-84	110°	-45°	147.3	18 U	357959	5789470	214

# Assay Results (Li<sub>2</sub>O %) & Interpretation of Major Dykes (>2.0 metres)

#### ASSAY RESULTS : JAMES BAY LITHIUM PROJECT

#### All Results Calculated with 0.80% cut-off grade

<b>SWARM #7</b> (holes 01-17)							
Hole	Dyke	<u>Li<sub>2</sub>O%/ m</u>	from	to	<u>intercept</u> width	<u>true</u> width	<u>dyke</u> <u>dip</u>
	<u> </u>	<u></u>		<u></u>			<u> avb</u>
JBL09-01	7.3	1.59%/10.27m	14.15	24.42	10.27	10.19	52°
JBL09-01	7.2	1.68%/9.85m	37.10	46.95	9.85	9.78	52°
JBL09-01	7.2	1.75%/8.66m	54.32	62.98	8.66	8.60	52°
JBL09-02	7.3	2.12%/2.17m	5.95	8.12	2.17	2.15	52°
JBL09-02	7.2	1.72%/9.87m	26.05	35.92	9.87	9.80	52°
JBL09-02	7.2	1.54%/4.30m	40.20	44.50	4.30	4.27	52°
JBL09-03	7.3	1.72%/5.20m	12.45	17.65	5.20	5.16	52°
JBL09-03	7.2	1.70%/5.17m	37.25	42.42	5.17	5.13	52°
JBL09-03	7.1	1.87%/2.25m	70.45	72.70	2.25	2.23	52°
JBL09-04	7.3	1.41%/3.37m	17.15	20.52	3.37	3.28	58°
JBL09-04	7.2	1.79%/3.95m	26.85	30.80	3.95	3.85	58°
JBL09-04	7.1	1.24%/2.52m	46.35	48.87	2.52	2.46	58°
JBL09-05	7.6	1.40%/7.14m	21.08	28.22	7.14	6.96	58°
JBL09-05	7.5	1.75%/6.55m	47.87	54.42	6.55	6.38	58°
JBL09-05	7.4	1.60%/2.56m	61.75	64.31	2.56	2.49	58°
JBL09-05	7.4	1.78%/2.31m	64.92	67.23	2.31	2.25	58°
JBL09-05	7.4	1.36%/3.09m	70.37	73.46	3.09	3.01	58°
JBL09-05	7.3	1.60%/3.06m	93.34	96.40	3.06	2.98	58°
JBL09-05	7.2	1.55%/2.68m	116.47	119.15	2.68	2.61	58°
JBL09-06	7.6	1.33%/12.00m	13.55	25.55	12.00	11.91	52°
JBL09-06	7.5	1.65%/10.07m	47.43	57.50	10.07	9.99	52°
JBL09-06	7.4	1.76%/4.50m	60.35	64.85	4.50	4.47	52°
JBL09-06	7.2	1.54%/3.17m	101.97	105.14	3.17	3.15	52°
JBL09-06	7.2	2.41%/3.02m	114.70	117.72	3.02	3.00	52°

JBL09-07	7.6	1.82%/5.23m	19.12	24.35	5.23	5.19	52°
JBL09-07	7.5	1.57%/10.58m	35.00	45.58	10.58	10.50	52°
JBL09-07	7.4	1.61%/5.68m	47.64	53.32	5.68	5.64	52°
JBL09-07	7.3	1.29%/2.18m	57.60	59.78	2.18	2.16	52°
JBL09-07	7.2	1.41%/3.38m	95.78	99.16	3.38	3.35	52°
JBL09-07	7.2	1.57%/5.20m	103.75	108.95	5.20	5.16	52°
JBL09-07	7.1	1.40%/4.60m	131.68	136.28	4.60	4.57	52°
JBL09-08	7.6	2.03%/2.88m	18.32	21.20	2.88	2.86	52°
JBL09-08	7.5 & 7.4	1.47%/10.27m	40.47	50.74	10.27	10.19	52°
JBL09-08	7.4	1.47%/10.27m	82.43	86.60	4.17	4.14	52°
JBL09-08 JBL09-08	7.3	1.37%/2.24m	88.83	91.07	2.24	4.14	52°
		1.37%/2.24m 1.18%/3.17m		102.50			52°
JBL09-08 JBL09-08	7.2 7.2	1.65%/7.40m	99.33 108.65	102.50	3.17 7.40	3.15 7.34	52°
							52°
JBL09-08	7.2	1.96%/3.45m	116.05	129.13	13.08	12.98	32
	76	1 409/ /10 2m	27.70	27.00	10.20	6.97	58°
JBL09-09	7.6	1.40%/10.2m	27.70	37.90	10.20	6.82 2.39	58°
JBL09-09	7.5	1.06%/3.57m	57.53	61.10	3.57		
JBL09-09	7.4	1.67%/3.84m	94.46	98.30	3.84	2.57	58°
JBL09-09	7.3	1.55%/3.00m	114.25	117.25	3.00	2.01	58°
JBL09-09	7.3	1.96%/3.45m	125.68	129.13	3.45	2.31	58°
JBL09-10	7.6	1.55%/14.50m	19.35	33.85	14.50	10.77	52°
JBL09-10	7.5	1.48%/5.63m	60.90	66.53	5.63	4.18	52°
JBL09-10	7.5	1.59%/6.67m	73.10	79.77	6.67	4.96	52°
JBL09-10	7.4	1.36%/2.79m	83.78	86.57	2.79	2.07	52°
JBL09-10	7.4	1.41%/3.21m	89.42	92.63	3.21	2.39	52°
JBL09-10	7.2	1.70%/2.49m	156.95	159.44	2.49	1.85	52°
JBL09-11	7.6	1.70%/8.72m	22.20	30.92	8.72	6.48	52°
JBL09-11	7.5	1.51%/22.50m	50.20	72.70	22.50	16.72	52°
JBL09-11	7.4	1.72%/2.73m	77.87	80.60	2.73	2.03	52°
JBL09-11	7.4	1.06%/2.04m	81.90	83.94	2.04	1.52	52°
JBL09-11	7.3	1.56%/2.41m	97.03	99.44	2.41	1.79	52°
JBL09-11	7.2	2.24%/4.82m	127.80	132.62	4.82	3.58	52°
JBL09-11	7.2	1.24%/6.20m	139.80	146.00	6.20	4.61	52°
JBL09-12	7.6	1.57%/5.77m	25.07	30.84	5.77	4.29	52°
JBL09-12	7.6	1.34%/6.09m	37.86	43.95	6.09	4.53	52°
	7.5 <b>&amp;</b>						
JBL09-12	7.4	1.43%/20.94m	58.76	79.70	20.94	15.56	52°

JBL09-12	7.2	1.22%/2.92m	124.00	126.92	2.92	2.17	52°
JBL09-12	7.2	1.19%/5.38m	148.37	153.75	5.38	4.00	52°
JBL09-13	7.3	2.36%/2.65m	109.65	112.30	2.65	2.65	48°
JBL09-13	7.3	2.38%/10.50m	119.50	130.00	10.50	10.49	48°
JBL09-13	7.3	1.31%/3.25m	137.60	140.85	3.25	3.25	48°
JBL09-13	7.2	1.52%/2.65m	155.53	158.18	2.65	2.65	48°
JBL09-13	7.2	1.47%/6.67m	163.43	170.10	6.67	6.66	48°
JBL09-13	7.2	1.60%/4.30m	181.00	185.30	4.30	4.29	$48^{\circ}$
JBL09-14	8.1	1.55%/2.32m	50.88	53.20	2.32	2.21	48°
JBL09-14	8.1	1.47%/2.88m	57.08	59.96	2.88	2.74	48°
JBL09-14	7.6	1.83%/8.36m	105.34	113.70	8.36	7.75	52°
<b>ID 1</b> 00 1 1	7.5 &		1000	1.4.6.00		10.00	500
JBL09-14	7.4	1.54%/11.03m	135.87	146.90	11.03	10.23	52°
JBL09-15	8.3	1.28%/7.31m	9.40	16.71	7.31	7.06	45°
JBL09-15	7.6	1.23%/5.87m	89.29	95.16	5.87	5.44	52°
JBL09-15	7.6	1.03%/6.20m	98.25	104.45	6.20	5.75	52°
JBL09-15	7.5	1.63%/8.64m	129.50	138.14	8.64	8.01	52°
JBL09-15	7.4	1.17%/2.43m	145.13	147.56	2.43	2.25	52°
JBL09-16	8.3	1.73%/12.65m	8.33	20.98	12.65	12.22	45°
JBL09-16	8.2	1.37%/3.37m	31.20	34.57	3.37	3.21	48°
JBL09-16	8.1	1.37%/3.29m	50.43	53.72	3.29	3.13	48°
JBL09-16	7.6	1.20%/5.75m	91.80	97.55	5.75	5.33	52°
JBL09-16	7.5	1.48%/8.50m	110.80	119.30	8.50	7.88	52°
JBL09-16	7.4	1.65/4.00m	137.36	141.36	4.00	3.71	52°
JBL09-17	8.3	1.41%/4.46m	8.83	13.29	4.46	4.31	45°
JBL09-17	8.2	1.10%/4.75m	21.46	26.22	4.76	4.53	48°
JBL09-17	8.1	1.91%/2.93m	90.22	93.15	2.93	2.79	48°
JBL09-17	7.6	1.37%/4.68m	94.52	99.20	4.68	4.34	52°
JBL09-17	7.5	1.74%/3.65m	113.47	117.12	3.65	3.38	52°
JBL09-17	7.4	1.32%/3.08m	118.62	121.70	3.08	2.86	52°
JBL09-17	7.3	1.10%/7.29m	147.09	154.38	7.29	6.76	52°

#### SWARMS #8 & 9

(holes 18-29 & 41)

Hole	Dyk e	<u>Li<sub>2</sub>O%/ m</u>	<u>from</u>	to	<u>intercept</u> width	true width	<u>dyke</u> <u>dip</u>
JBL09-18	8.5	2.49%/3.41m	16.87	20.28	3.41	3.29	45°
JBL09-18	8.4	1.84%/2.40m	33.17	35.57	2.40	2.32	45°
JBL09-18	8.3	1.00%/6.54m	61.55	68.09	6.54	6.32	45°
JBL09-18	8.2	1.44%/6.40m	71.50	77.90	6.40	6.18	45°
JBL09-18	7.6	1.35%/6.79m	140.45	147.24	6.79	5.05	52°
JBL09-19	8.5	1.38%/7.63m	26.65	34.28	7.63	7.37	45°
JBL09-19	8.3	1.47%/9.79m	64.13	73.92	9.79	9.46	45°
JBL09-19	8.1	1.89%/7.49m	91.88	99.37	7.49	7.23	45°
JBL09-19	8.1	1.60%/3.38m	104.48	107.86	3.38	3.26	45°
JBL09-19	7.6	1.10%/2.23m	142.02	144.25	2.23	1.66	52°
JBL09-19	7.5	1.67%/8.16m	169.47	177.63	8.16	6.06	52°
JBL09-19	7.4	1.15%/4.69m	199.78	204.47	4.69	3.49	52°
JBL09-20	8.5	1.33%/17.38m	14.00	31.38	17.38	16.79	45°
JBL09-20	8.3	1.51%/14.72m	57.10	71.82	14.72	14.22	45°
JBL09-20	8.2	1.51%/2.28m	87.72	90.00	2.28	2.20	45°
JBL09-20	8.1	1.58%/5.63m	98.82	104.45	5.63	5.44	45°
JBL09-20	7.6	1.20%/2.36m	139.64	142.00	2.36	1.75	52°
JBL09-20	7.6	1.42%/4.32m	156.00	160.32	4.32	3.21	52°
JBL09-20	7.5	1.28%/7.86m	174.05	181.91	7.86	5.84	52°
JBL09-20	7.4	1.36%/3.83m	200.47	204.30	3.83	2.85	52°
JBL09-							
21B JBL09-	8.5	1.41%/21.2m	16.50	37.70	21.20	20.48	45°
21B	8.3	1.46%/3.59m	71.91	75.50	3.59	3.47	45°
JBL09- 21B JBL09-	8.1	1.80%/3.28m	113.00	116.28	3.28	3.17	45°
21B JBL09-	7.5	1.17%/2.85m	181.60	184.45	2.85	2.12	52°
21B	7.4	1.52%/7.04m	195.35	202.39	7.04	5.23	52°
JBL09-22	8.1	1.38%/3.88m	133.32	137.20	3.88	3.75	60°
JBL09-23	8.8	1.42%/6.73m	12.08	18.81	6.73	4.76	55°
JBL09-23	8.7	1.76%/26.97m	26.60	53.57	26.97	19.07	55°

James Bay Lithium Project

JBL09-23	8.7	1.51%/2.68m	55.68	58.36	2.68	1.90	55°
JBL09-23	8.6	1.40%/18.95m	59.55	78.50	18.95	13.40	55°
JBL09-23	8.5	1.59%/3.55m	109.25	112.80	3.55	2.91	45°
JBL09-23	8.4	1.45%/4.73m	129.60	134.33	4.73	3.87	45°
JBL09-23	8.3	1.39%/3.73m	146.09	149.82	3.73	3.06	45°
JBL09-23	8.3	1.60%/6.77m	155.10	161.87	6.77	5.55	45°
JBL09-23	8.2	1.31%/5.53m	177.63	183.16	5.53	4.53	45°
JBL09-24	8.7	1.55%/23.17m	22.83	46.00	23.17	23.08	50°
JBL09-24	8.6	1.50%/5.55m	49.25	54.80	5.55	5.53	50°
JBL09-24	8.4	1.39%/2.86m	119.01	121.87	2.86	2.86	45°
JBL09-24	8.3	1.44%/3.53m	136.18	139.71	3.53	3.53	45°
JBL09-24	8.2	1.84%/5.38m	151.00	156.38	5.38	5.38	45°
JBL09-25	8.7	1.56%/7.00m	27.00	34.00	7.00	5.36	50°
JBL09-25	8.7	1.52%/16.84m	36.30	53.14	16.84	12.90	$50^{\circ}$
JBL09-25	8.6	1.54%/13.54m	53.50	67.04	13.54	10.37	$50^{\circ}$
JBL09-25	8.5	1.63%/2.10m	84.77	86.87	2.10	1.90	35°
JBL09-26	8.6	1.63%/12.95m	40.02	52.97	12.95	9.62	52°
JBL09-27	8.5	1.83%/3.29m	81.67	84.96	3.29	3.29	45°
JBL09-27	8.5	1.29%/2.30m	86.31	88.61	2.30	2.30	45°
JBL09-27	8.4	1.60%/2.70m	99.42	102.12	2.70	2.70	45°
JBL09-27	8.4	1.47%/10.28m	106.18	116.46	10.28	10.28	45°
JBL09-27	8.3	1.91%/7.05m	142.77	149.82	7.05	7.05	45°
JBL09-28	8.7	1.98%/21.0m	48.53	69.53	21.00	15.36	53°
JBL09-28	8.6	1.24%/3.00m	100.1	103.1	3.00	2.19	53°
JBL09-29	8.7	2.19%/2.12m	117.78	119.90	2.12	1.55	53°
							0
JBL09-31	9.2	1.64%/5.48m	22.00	27.48	5.48	5.36	52°
JBL09-31	9.1	1.96%/6.85m	37.47	44.32	6.85	6.70	52°
JBL09-31	8.7	1.46%/12.88m	102.78	115.66	12.88	12.68	50°
JBL09-31	8.6	1.46%/2.11m	129.43	131.54	2.11	2.08	50°
	_						0
JBL09-32	9.2	1.44%/2.04m	19.32	21.36	2.04	1.63	52°
JBL09-32	9.2	1.23%/5.00m	24.47	29.47	5.00	3.99	52°
JBL09-32	9.1	1.22%/2.37m	43.33	45.70	2.37	1.89	52°
JBL09-32	9.1	1.58%/4.89m	46.63	51.52	4.89	3.91	52°

James Bay Lithium Project

JBL09-32	8.7	1.33%/6.05m	124.55	130.60	6.05	4.96	50°
JBL09-33	9.2	1.57%/9.69m	32.79	42.48	9.69	9.36	60°
JBL09-33	9.2	1.40%/2.82m	43.60	46.42	2.82	2.72	60°
JBL09-33	8.7	1.94%/7.25m	103.43	110.68	7.25	7.14	55°
JBL09-33	8.7	1.97%/4.88m	113.75	118.63	4.88	4.81	55°
JBL09-33	8.7	1.85%/4.10m	120.10	124.20	4.10	4.04	55°
JBL09-33	8.7	2.12%/4.34m	127.13	131.47	4.34	4.27	55°
JBL09-33	8.6	1.02%/7.58m	135.31	142.89	7.58	7.46	55°
JBL09-34	9.2	1.51%/16.57m	42.95	59.52	16.57	11.72	60°
JBL09-34	9.2	1.45%/3.18m	62.50	65.68	3.18	2.25	60°
JBL09-34	9	1.34%/2.50m	100.60	103.10	2.50	1.77	60°
JBL09-34	8.7	1.65%/23.46m	136.24	159.70	23.46	17.97	55°
JBL09-35	9.2	1.25%/5.84m	35.38	41.22	5.84	5.06	$70^{\circ}$
JBL09-35	8.8	1.37%/3.24m	101.53	104.77	3.24	3.16	53°
JBL09-35	8.7	1.73%/14.06m	110.29	124.35	14.06	13.70	53°
JBL09-35	8.6	1.70%/7.12m	134.45	141.57	7.12	6.94	53°
JBL09-36	9.2	1.00%/6.00m	54.20	60.20	6.00	4.09	62°
JBL09-36	9.1	1.88%/2.30m	83.00	85.30	2.30	1.81	53°
JBL09-36	8.7	1.05%/10.50m	142.20	152.70	10.50	8.27	53°
JBL09-41	8.7	1.74%/14.65m	29.65	44.30	14.65	14.59	50°
JBL09-41	8.6	1.72%/4.08m	53.67	57.75	4.08	4.06	$50^{\circ}$
JBL09-41	8.6	1.45%/12.02m	62.92	74.94	12.02	11.97	50°
JBL09-41	8.5	1.66%/6.15m	106.90	113.05	6.15	6.09	53°
JBL09-41	8.4	2.10%/2.30m	119.96	122.26	2.30	2.28	53°
JBL09-41	8.3	1.64%/10.35m	135.27	145.62	10.35	10.31	50°
JBL09-41	8.1	1.54%/4.05m	163.55	167.60	4.05	4.03	50°
JBL09-41	8.1	1.47%/4.34m	172.83	177.17	4.34	4.32	50°

#### SWARM #10&11

(holes 37-40) & (holes 52-61 & 70)

Hole	<u>Dyke</u>	<u>Li<sub>2</sub>O%/ m</u>	from	to	<u>intercept</u> width	true width	<u>dyke</u> <u>dip</u>
<u>1101e</u>	Dyke	<u>En2O 707 m</u>	<u>110111</u>	<u>10</u>	width	<u>true wieth</u>	<u>uip</u>
JBL09-37	10.1	1.20%/11.55m	46.45	58.00	11.55	8.17	55°
JBL09-37	9.2	1.36%/16.10m	105.08	121.18	16.10	11.38	55°
JBL09-37	9.1	1.90%/5.35m	125.87	131.22	5.35	3.78	55°
JBL09-37	9.0	1.18%/2.43m	156.82	159.25	2.43	1.72	55°
JBL09-38	10.1	1.54%/6.44m	14.52	20.96	6.44	4.14	60°
JBL09-38	9.4	1.34%/1.93m	87.10	89.03	1.93	1.24	60°
JBL09-38	9.3	1.67%/4.67m	128.15	132.82	4.67	3.00	60°
JBL09-38	9.2	1.19%/4.00m	135.40	139.40	4.00	2.57	60°
JBL09-39	10.1	1.54%/9.50m	3.13	12.63	9.50	7.06	52°
JBL09-40	10.4	2.46%/2.15m	22.95	25.10	2.15	1.98	68°
JBL09-40	10.3	1.62%/6.90m	49.30	56.20	6.90	6.35	68°
JBL09-40	10.3	1.12%/2.94m	59.89	62.83	2.94	2.71	68°
JBL09-40	10.2	1.85%/2.87m	67.78	70.65	2.87	2.64	$68^{\circ}$
JBL09-40	10.1	1.65%/2.20m	118.63	120.83	2.20	2.03	65°
JBL09-52	11.3	1.50%/11.91m	2.35	14.26	11.91	11.86	50°
JBL09-52	11.2	1.79%/4.07m	22.75	26.82	4.07	4.05	$50^{\circ}$
	11.2, 11.3 &						
JBL09-53	11.4 11.2, 11.3 &	1.97%/17.18m	15.00	32.18	17.18	17.05	52°
JBL09-53	11.4	1.15%/4.74m	33.38	38.12	4.74	4.67	55°
JBL09-53	10.4	1.68%/5.03m	46.15	51.18	5.03	4.73	65°
JBL09-53	10.4	2.00%/3.71m	58.50	62.21	3.71	3.49	65°
JBL09-53	10.4	1.85%/10.28m	69.34	79.62	10.28	9.46	68°
JBL09-53	10.3	2.05%/2.50m	89.72	92.22	2.50	2.30	68°
JBL09-53	10.2	1.15%/3.52m	128.70	132.22	3.52	3.24	68°
JBL09-53	10.1	1.42%/2.00m	152.00	154.00	2.00	1.84	68°

James Bay Lithium Project

JBL09-53	10.1	1.54%/7.17m	154.98	162.15	7.17	6.60	68°
JBL09-54	11.5 11.2,	1.97%/7.73m	56.03	63.76	7.73	-56.03	45°
	11.3						_
JBL09-54	& 1.4	1.58%/19.06m	65.94	85.00	19.06	-65.94	45°
JBL09-54	11.1	1.78%/3.11m	87.74	90.85	3.11	-87.74	45°
JBL09-54	10.4	1.36%/2.08m	101.85	103.93	2.08	-101.85	45°
JBL09-54	10.4	1.28%/2.95m	106.25	109.20	2.95	-106.25	45°
JBL09-55	11.6	1.38%/6.97m	21.09	28.06	6.97	4.93	65°
JBL09-55	11.5	1.67%/8.76m	55.24	64.00	8.76	7.94	45°
JBL09-55	11.3 11.1	1.33%/4.15m	71.65	75.80	4.15	3.76	45°
JBL09-55	& 1.2	1.41%/10.92m	79.50	90.42	10.92	9.90	45°
JBL09-55	10.4	1.69%/5.82m	108.03	113.85	5.82	5.27	45°
JBL09-56	11.6	1.59%/8.38m	26.13	34.51	8.38	4.19	65°
JBL09-56	11.5	1.10%/4.00m	63.69	67.69	4.00	3.06	45°
JBL09-56	11.5	1.48%/5.23m	69.19	74.42	5.23	4.01	45°
JBL09-57	11.5	1.59%/3.00m	14.53	17.53	3.00	2.99	$50^{\circ}$
JBL09-57	11.4	1.36%/8.46m	35.75	44.21	8.46	8.43	50°
JBL09-57	11.3	1.70%/10.57m	51.90	62.47	10.57	10.53	50°
JBL09-57	11.2	1.39%/5.05m	73.23	78.28	5.05	5.03	$50^{\circ}$
JBL09-58	11.5	1.26%/6.20m	17.10	23.30	6.20	5.08	50°
JBL09-58	11.3	1.08%/3.35m	67.75	71.10	3.35	2.74	50°
IDI 00 50	11.1	1 409/ /20 46	27.80	59.76	20.46	19.54	700
JBL09-59	& 1.2	1.40%/20.46m	37.80	58.26	20.46	18.54	70°
JBL09-59	11.3	1.45%/6.07m	73.48	79.55	6.07	5.50	70°
JBL09-60	11.4	1.49%/5.16m	76.06	81.22	5.16	3.25	58°
JBL09-60	11.3	1.89%/5.49m	86.97	92.46	5.49	3.45	58°
JBL09-60	11.2	1.53%/9.13m	96.05	105.18	9.13	5.75	58°
JBL09-60	11.2	1.53%/2.10m	107.90	110.00	2.10	1.32	58°
JBL09-60	11.1	1.43%/10.65m	112.00	122.65	10.65	6.70	58°
JBL09-60	10.4	1.56%/7.43m	142.07	149.50	7.43	4.68	58°
JBL09-60	10.4	1.13%/14.50m	152.50	167.00	14.50	9.12	58°
JBL09-60	10.4	1.01%/2.00m	168.40	170.40	2.00	1.26	58°
JBL09-61	11.3	1.35%/7.30m	136.65	143.95	7.30	6.86	40°
Iomoc Dox	T ithin	m Project		22		Prood	Oak Aga

James Bay Lithium Project

32

JBL09-61	11.2	1.13%/7.30m	150.70	158.20	7.50	7.05	$40^{\circ}$
JBL09-61	11.1	2.15%/2.90m	172.30	175.20	2.90	2.73	$40^{\circ}$
JBL09-61	10.4	1.25%/13.33m	182.02	195.35	13.33	12.53	$40^{\circ}$
JBL09-70	10.4	1.34%/8.82m	114.20	123.02	8.82	8.29	45°
JBL09-70	10.4	1.74%/8.70m	129.20	137.90	8.70	8.18	45°
JBL09-70	10.3	1.43%/7.00m	151.00	158.00	7.00	6.58	45°
JBL09-70	10.2	2.16%/4.70m	169.40	174.10	4.70	4.42	45°

## SWARMS #12,

**13 & 14** (holes 62-69 & 71-84)

Hole	<u>Dyke</u>	<u>Li<sub>2</sub>O%/ m</u>	<u>from</u>	to	<u>intercept</u> width	true width	<u>dyke</u> <u>dip</u>
<u>11010</u>	Dyke	<u>1120 /0/ 111</u>	<u>mom</u>	<u>10</u>	width	<u>true width</u>	<u>uip</u>
JBL09-62	14.3	1.68%/10.30m	39.57	49.87	10.30	8.92	75°
JBL09-62	14.2	1.53%/26.38m	61.07	87.45	26.38	22.85	75°
JBL09-62	14.1 13.1 &	1.67%/7.88m	89.88	97.76	7.88	7.14	70°
JBL09-62	13.2	1.60%/40.83m	102.57	143.40	40.83	37.00	70 <sup>°</sup>
	14.1,						
	&						0
JBL09-63	14.2	1.56%/35.40m	47.60	83.00	35.40	33.27	65°
JBL09-63	13.2	1.46%/6.17m	148.70	154.87	6.17	5.80	65°
JBL09-63	13.1	1.45%/6.48m	173.68	180.16	6.48	6.09	65°
JBL09-63	13.1	1.63%/5.44m	182.12	187.56	5.44	5.11	65°
JBL09-64	14.2	1.44%/25.70m	10.60	36.30	25.70	25.04	58°
JBL09-64	14.1	1.61%/4.15m	48.93	53.08	4.15	4.04	58°
JBL09-65	14.3	1.66%/57.92m	41.95	99.87	57.92	54.43	65°
JBL09-65	14.3	1.49%/6.51m	102.08	108.59	6.51	6.12	65°
JBL09-65	14.2	1.57%/21.78m	110.68	132.46	21.78	20.47	65°
JBL09-65	14.1	1.60%/13.96m	134.06	148.02	13.96	13.12	65°
JBL09-65	13.2	1.21%/15.44m	197.52	212.96	15.44	13.99	$70^{\circ}$
JBL09-65	13.1	1.51%/7.69m	229.63	237.32	7.69	6.97	$70^{\circ}$
JBL09-65	13.1	1.68%/28.60m	242.75	271.35	28.60	25.92	$70^{\circ}$
JBL09-66	14.1,	1.65%/64.00m	107.67	171.67	64.00	60.14	55°
Iomos Dov	Lithing	n Drojaat		22		Broad (	Jok Ago

James Bay Lithium Project

	14.2 &						
JBL09-66	14.3 12.4	1.68%/9.60m	236.65	246.25	9.60	9.02	55°
JBL09-66	12.4	1.42%/3.67m	251.8	255.47	3.67	3.45	55°
JBL09-67	14.3	1.92%/7.00m	10.36	17.36	7.00	6.58	55°
JBL09-67	14.2	1.98%/23.36m	29.64	53.00	23.36	21.95	55°
JBL09-67	14.1	2.20%/2.62m	57.20	59.82	2.62	2.46	55°
JBL09-67	13.2	1.84%/37.30m	133.70	171.00	37.30	35.05	$58^{\circ}$
JBL09-67	13.1	1.42%/3.60m	179.20	182.80	3.60	3.38	58°
	13.1 &						
JBL09-68	13.2	no intercepts > 2	.0m				
JBL09-69	14.1	1.59%/5.20m	103.30	108.50	5.20	5.02	60°
JBL09-71	14.1	1.19%/2.40m	20.52	22.92	2.40	2.08	75°
	13.1 &						
JBL09-72	13.2	1.45%/38.36m	90.44	128.80	38.36	37.38	58°
	13.1 &						
JBL09-73	13.2	1.47%/23.70m	31.45	55.15	23.70	23.09	58°
JBL09-74	14.2 13.1 &	1.60%/13.50m	3.20	16.70	13.50	11.06	80°
JBL09-74	13.2	1.54%/51.13m	67.67	118.80	51.13	49.39	60°
JBL09-75	13.2	1.53%/33.50m	23.28	56.78	33.50	33.50	45°
	13.1	1.08%/5.30m	61.55	66.85	5.30	4.59	70°
JBL09-76	13.2	1.56%/38.81m	19.24	58.05	38.81	38.81	45°
	13.1	1.56%/18.20m	112.48	130.68	18.20	16.49	$70^{\circ}$
	13.1 &						
JBL09-77	13.2	1.55%/5.92m	79.38	85.30	5.92	5.13	75°
JBL09-78	12.2	1.52%/19.00m	16.20	35.20	19.00	17.85	65°
	12.1	1.38%/13.82m	67.78	81.60	13.82	12.99	65°

James Bay Lithium Project

JBL09-79	12.2	1.64%/3.60m	22.00	25.60	3.60	3.38	55°
	12.2	1.24%/2.80m	30.20	33.00	2.80	2.63	55°
	12.2	1.69%/20.20m	38.48	58.68	20.20	18.98	55°
	12.1	1.47%/12.70m	66.75	79.45	12.70	11.93	55°
	12.1 &						
JBL09-80	12.2	1.80%/45.50m	44.50	90.00	45.50	43.95	60°
	12.1						
JBL09-81	& 12.2	1.59%/13.69m	124.95	138.64	13.69	13.22	60°
<b>JDL</b> 09 01	1 22 - 22	1.5970/15.0911	1	150.01	15.07	10.22	00
JBL09-82	12.4	1.19%/5.60m	45.00	50.60	5.60	5.26	65°
	12.3	1.48%/3.65m	75.45	79.10	3.65	3.43	65°
	12.2	1.52%/25.31m	91.84	117.15	25.31	23.78	65°
	12.1	1.46%/15.26m	142.54	157.80	15.26	14.34	65°
JBL09-83	12.3	1.56%/4.20m	33.35	37.55	4.20	3.95	55°
	12.3	1.49%/18.70m	42.65	61.35	18.70	17.57	55°
	12.2	1.37%/13.70m	80.80	94.50	13.70	12.87	55°
	12.2	1.54%/7.51m	103.94	111.45	7.51	7.06	55°
	12.1	1.13%/4.55m	114.57	119.12	4.55	4.28	55°
	12.1	1.20%/2.50m	131.90	134.40	2.50	2.35	55°
JBL09-84	12.4	1.71%/8.40m	9.35	17.75	8.40	7.89	55°
	12.2	1.49%/5.87m	100.18	106.05	5.87	5.52	55°
	12.1	1.60%/20.79m	113.88	134.67	20.79	19.54	55°

### SWARM #15

(holes 42-51)

Hole	<u>Dyke</u>	<u>Li<sub>2</sub>0%/ m</u>	<u>from</u>	<u>to</u>	<u>intercept</u> <u>width</u>	true width	<u>dyke</u> <u>dip</u>
JBL09-42	15.1	1.42%/23.96m	89.26	113.22	23.96	17.2m	75°
JBL09-42	15.1	1.26%/7.60m	119.10	126.70	7.60	5.5m	75°
JBL09-42	15.1	1.21%/3.75m	134.45	138.20	3.75	2.7m	75°
JBL09-43	15.1	1.68%/38.93m	5.40	44.33	38.93	33.5m	75°

JBL09-44	15.2	2.56%/2.80m	23.33	26.13	2.80	2.5m	75°
JBL09-44	15.1	1.27%/23.29m	49.83	73.12	23.29	21.2m	75°
JBL09-45	15.2	1.38%/4.60m	26.25	30.85	4.60	3.9m	75°
JBL09-45	15.1	1.21%/35.52m	41.48	77.00	35.52	30.3m	75°
JBL09-46	15.2	3.46%/5.66m	50.82	56.48	5.66	3.4m	75°
JBL09-46	15.1B	1.99%/12.00m	80.08	92.08	12.00	7.2m	75°
JBL09-46	15.1B	1.25%/2.00m	94.55	96.55	2.00	1.2m	75°
JBL09-46	15.1A	1.84%/4.37m	122.97	127.34	4.37	2.6m	75°
JBL09-46	15.1A	1.53%/14.50m	131.97	146.47	14.50	8.7m	75°
JBL09-47	15.2	1.59%/11.90m	47.95	59.85	11.90	5.5m	75°
JBL09-47	15.1	1.72%/49.50m	84.90	134.40	49.50	23.0m	75°
JBL09-48	15.2	1.56%/17.05m	19.42	36.47	17.05	14.2m	75°
JBL09-49	15.2	1.8%/12.00m	28.77	40.77	12.00	8.5m	75°
JBL09-50	15.1	1.48%/16.02m	36.55	52.57	16.02	14.1m	75°
JBL09-51	15.1	1.24%/2.29m	78.86	81.15	2.29	1.6m	75°
JBL09-51	15.1	1.36%/5.42m	88.94	94.36	5.42	3.7m	75°
JBL09-51	15.1	1.32%/4.44m	109.34	113.78	4.44	3.0m	75°

The 84 holes drilled in the 2009 program added very significantly to the knowledge of this pegmatite property. New areas of pegmatite were identified and the new grid placed over the exploration area for the 2009 program enabled better drilling patterns and a better interpretation of the data.

It is interesting to note that several higher grade intercepts occurred in the new swarms to the west suggesting that there is the potential to raise the grade of the overall deposit. The results of the 2009 drilling program enable the author of this report to conclude that the potential lithium deposit on this property is well beyond the 12 million tonnes suggested in the historical reports.

The following maps, both the plans and cross section are a compilation of both the 2008 and 2009 exploration programs.

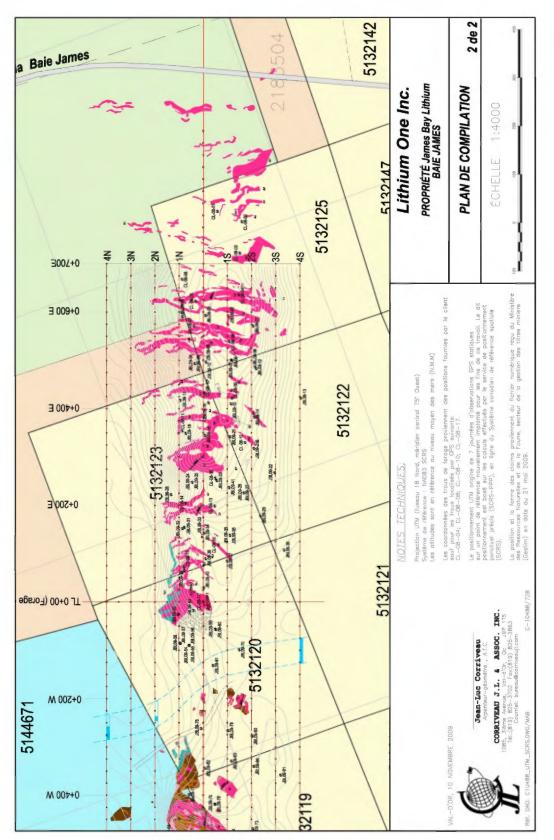


Fig. 5, Map showing field grid and drill hole locations and outcrops – east portion.

James Bay Lithium Project

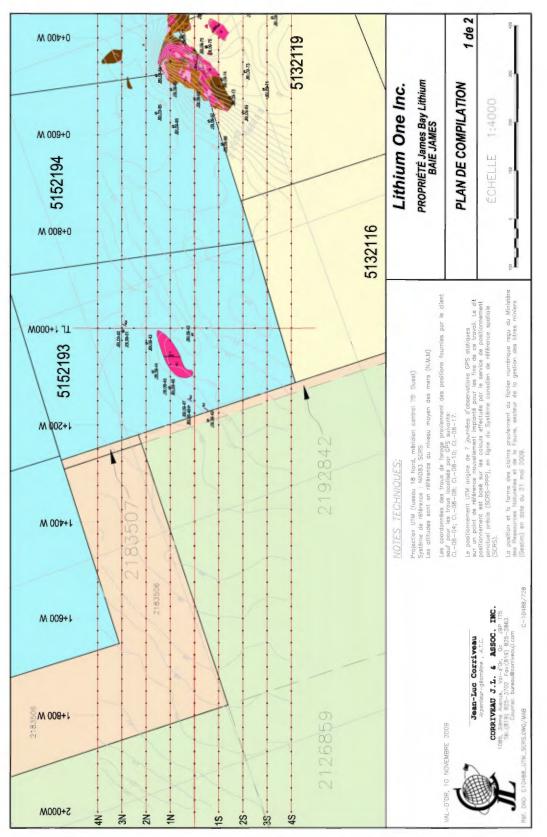


Fig. 6, Map showing field grid and drill hole locations and outcrops – west portion.

James Bay Lithium Project

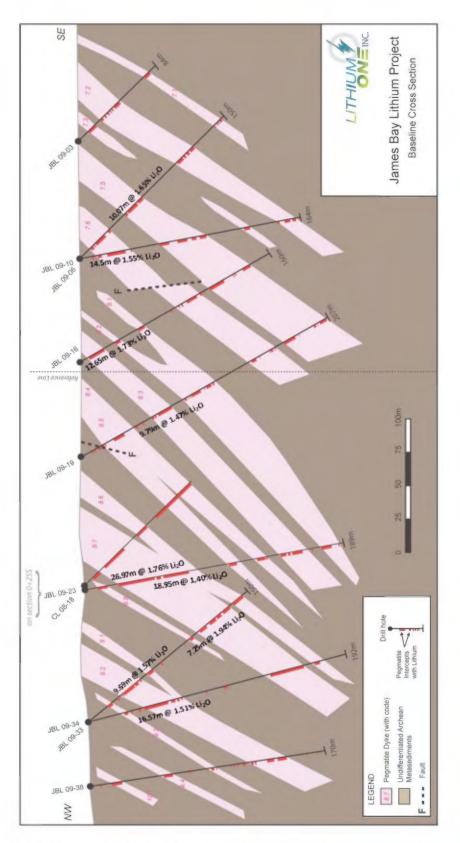


Fig. 7, Base Line Cross Section looking northeast

James Bay Lithium Project

# 14.0 Sampling Method and Approach

## 2008 Drill Program

There were no blanks and standards inserted in the samples to be assayed so the following duplicates were prepared and analysed. In Broad Oak's opinion this duplicate program, although not perfect, was sufficient to determine the validity of the results.

A duplicate of 8 samples from the initial suite was prepared from the original sample 'reject' and given a new tag number. Both suites were assayed at COREM. The Li<sub>2</sub>O results are compared in the table below. Differences between the sample pairs vary from -0.08% to +0.30% Li<sub>2</sub>O or a sample to sample difference of -7% to +24%. This is an acceptable level of tolerance for such differences. It does not reflect any lack of quality, neither from the assay laboratory nor from the preparation laboratory. However, what it does indicate is the difficulty related to the preparation of a sample when coarse-grained minerals such as spodumene are at stake. Coarse-grained minerals are difficult to mix properly after the primary crusher; giving results much like the nugget effect in vein gold analysis.

Original Tag #	Li <sub>2</sub> O (%)	Li <sub>2</sub> O (%) Discrepancy	% Difference	Li <sub>2</sub> O (%)	Duplicate Tag #
568620	1.06	0.13	12.3%	1.19	568773
568640	0.88	-0.02	-2.3%	0.86	568774
568660	1.22	-0.08	-6.6%	1.14	568775
568680	1.35	-0.05	-3.7%	1.30	568776
568700	0.52	-0.01	-1.9%	0.51	568777
568720	1.27	0.30	23.6%	1.57	568778
568740	1.73	-0.05	-2.9%	1.68	568779
568760	1.40	0.07	5.0%	1.47	568780

Comparative results of Duplicates

# 2009 Drill Program

Quality Control is more important for the 2009 drilling program because of its larger scope. As such, blank samples together with two grades of standards are inserted alternately every 20 samples. The standards consist of two "self-made" standards prepared at the demand of Lithium One, and under their specifications at the Table Jamésienne de Concertation Minière located in Chibougamau. They were made from outcropping material from pegmatite #8.3. A "high" standard consists of material representing 100% of the average grade of the samples collected by Company geologists. The low standard was made by adding 40% (blank) to the high standard and mixing it. The blank material used consists of 100% filtration sand (silica).

The Company is adding duplicate samples every 40 samples during the current drilling program. Since the drilling program lasted about 3 months; this adds another important element to the Quality Control program. Initially, the duplicates were obtained by selecting a second sample from the "reject material" at the preparation lab. After one month of work, the process was changed to core quartering of the sample to be sent for

James Bay Lithium Project

assay, with the new sample given a new tag number. Because of the relatively large grain size of the minerals involved, such "quartering" of the sample is likely to demonstrate a larger standard deviation in the statistical analysis of the assays than if the duplicates were still obtained using the former method. It does not reflect any lack of quality neither from the assay laboratory nor from the preparation laboratory. However, what it does indicate is the difficulty related to the preparation of a sample when coarse-grained minerals such as spodumene are at stake. Coarse-grained minerals are difficult to mix properly after the primary crusher; giving results much like the nugget effect in vein gold analysis.

# 15.0 Sample Preparation, Analysis and Security

# 2008 Drill Program

All the mineralized cores were sampled in the field. The core was halved using a hydraulic core splitter; then it was sent to the sample preparation lab Table Jamésienne de Concertation Minière (TJCM) in Chibougamau. Here the samples were crushed in a primary crusher, mixed and split; then a representative sample was extracted and pulverized using silicon carbide discs.

The sulphides bearing samples were sent to Accurassay lab in Thunder Bay and scanned for multiple elements on top of gold by the Au+ICPAR package; a technique using aqua regia dissolution of the pulverized samples.

The pegmatite cores were prepared in the same manner but were assayed at the Québec City research lab COREM. The analysis is a full assay technique using a total (HF/HClO4) acid attack of the sample. This method consists of dissolving the sample with concentrated nitric (HNO3), perchloric (HClO4) and hydrofluoric (HF) acids; this process is repeated twice, the dissolution is finished in boiling water. The dissolved sample is analyzed by atomic absorption (AA) spectrometry. A suite of 34 samples was selected and analyzed by the semi-quantitative X-ray fluorescence method (A45). The precision of this method is  $\pm 10\%$ . The objective here is to find other elements sometimes associated with this type of pegmatite.

The samples were shipped in secure containers to the assay laboratories.

# 2009 Drill Program

All the mineralized cores were sampled in the field. The core is halved using a 14" diamond saw. In comparison with the conventional hydraulic core splitter (used in 2008) which tended to crush and splinter the lath-like minerals such as spodumene; core splitting with a diamond saw offers better (though slower) samples that represent that section of the core. The sawed sample is then sent to the sample preparation lab Table Jamésienne de Concertation Minière (TJCM) in Chibougamau. Here the sample is

crushed in a primary crusher, mixed and split; then a representative sample is extracted and pulverized using silicon carbide discs.

The pegmatite core samples were shipped to the COREM research lab in Québec City for assaying. The analysis is a full assay technique using a total (HF/HClO4) acid attack of the sample. This method consists of dissolving the sample with concentrated nitric (HNO3), perchloric (HClO4) and hydrofluoric (HF) acids; this process is repeated twice, and the dissolution is finished in boiling water. The dissolved sample is analyzed by atomic absorption (AA) spectrometry. A suite of 34 samples was selected and analyzed by the semi-quantitative X-ray fluorescence method (A45) for a review of elements sometimes associated with this type of pegmatite.

The samples were shipped in secure containers to the assay laboratories.

Broad Oak is of the opinion that the use of standards and blanks, laboratory duplicates, laboratory internal standards confirmed the integrity of the Lithium One database and the accuracy of the database is sufficient to calculate resources.

# 16.0 Data Verification

# **Property Examination**

G. S. Carter Q.P., and K. E. Dunstan visited the property on November 8, 2007 and due to the snow cover were unable to obtain any samples of relevance. They again visited the property on August 11-12, 2009 and quartered 5 intersections and had them independently assayed by the same procedures as used by Lithium One at the COREM Laboratory. In the 2009 drilling program the core was being split using a diamond saw and the quarter cores were sawed. The laboratory provided the results directly to Broad Oak.

The following shows the comparison

Diamond Drill Hole # 23, Located on section 13L

1.5 metre intersection, start 13.08 metres end 14.58 metresLithium One sample# 279935Broad Oak Sample# BOA11.39% Li2O

1.5 metre inte	rsection, star	t 44.1 metres end 45.6 metres
Lithium One sample	# 279953	2.04% Li <sub>2</sub> O
Broad Oak Sample	# BOA2	1.96% Li <sub>2</sub> O

1.5 metre intersection, start 50.1 metres end 51.6 metres				
Lithium One sample	# 279957	1.03% Li <sub>2</sub> O		
Broad Oak Sample	# BOA3	0.86% Li <sub>2</sub> O		

James Bay Lithium Project

1.0 metre intersection, start 54.68 metres end 55.68 metresLithium One sample# 2799610.68% Li<sub>2</sub>OBroad Oak Sample# BOA40.60% Li<sub>2</sub>ODiamond Drill Hole # 24, Located on section o+50 N

0.76 metre intersection, start 61.24 metres end 62.00 metres				
Lithium One sample	# 19	1.04% Li <sub>2</sub> O		
Broad Oak Sample	# BOA5	0.62% Li <sub>2</sub> O		

Broad Oak is of the opinion that these samples compare favourable with the Company samples and that the assay procedures carried out by Lithium One are appropriate, and that their data base can be relied upon for NI 43-101 compliant resource estimates.

## **17.0** Adjacent Properties

There are no adjoining properties of interest

## 18.0 Mineral Processing and Metallurgical Testing

There has been no mineral processing or metallurgical testing by Lithium One on this property.

## **19.0 Mineral Resource and Mineral Reserve Estimates**

There have been no mineral resource or mineral reserve estimates calculated for this property that confirm with NI 43-101 standards. The Company intends to enter all the drill data into a computer modelling software package and conduct a geostatistical study to determine the spacing required to conform with the CIM resource definitions, before conducting a resource calculation that would be NI 43-101 compliant.

## 20.0 Other Relevant Data and Information

There is no other relevant data and information.

## **21.0** Interpretation and Conclusions

This deposit is at the early stages of exploration but it has been demonstrated that a significant spodumene bearing pegmatite is present. The data clearly indicate that there is a relatively large spodumene deposit on the property with lithium concentrations in the range of 1.5-1.9% Li<sub>2</sub>O. The drill data, maps, surface channel samples, and cross sections indicate strong continuity of grade and thickness along strike of the dykes. Further, the pegmatite dykes occur in a swarm that occupies an area of dilatency over 4

James Bay Lithium Project

kilometres in length. The pattern of outcrop and continuity of the pegmatite bodies is robust and predictable. Since drilling has thoroughly tested less than 1.5 kilometres of this corridor, the author believes there is potential for significant growth of the known pegmatite extents. These extensive surface outcrops and continuity to depth as indicated by the drilling are good indications for open pit mining potential, if and when economic resources are reported. In the author's opinion, all of the above bodes well for the potential of the James Bay Lithium Deposits to grow to be a significant deposit with potential for an economic operation.

The James Bay deposit is a very significant one; it is open at depth, down dip and laterally in three directions east, west, and south. The results detailed in this report should be subjected to three dimensional analysis, interpretation, and computer modeling to aid in directing the next phase of exploration and potential development.

## 22.0 Recommendations

Geoffrey S. Carter, the Qualified Person preparing this Technical Report, believes that the character of this James Bay Lithium Project is of sufficient merit to justify the following two stage program which would be completed over a 6 to 12 month period.

Phase I

## 1.Check Assays & BeO plus rare metal analyses

The potential economics of such a project are subject to a thorough understanding of all potentially economic commodities. So a selection of samples will be submitted for beryllium assaying together with multi-element determination. The selection will be made from drill log reviews and will target a representative span of influence throughout the area recently drilled. Although it is not expected that the James Bay pegmatites host significant REE, Nb-Ta, or even Be and Cs potential, approximately 100 samples will be selected that will either substantiate or refute this potential.

Quality control has been and will continue to be an integral part of the development program. The company is currently preparing a check assaying program to double check not only the COREM assays (by re-assaying their pulps); but also aimed at controlling the quality of work from the preparation lab (by re-assaying samples from the rejects). It is not known how many samples will be required to accomplish this, but an initial estimate is that 400-500 external check assays is an appropriate start. The coarse nature of the spodumene crystals requires constant attention to detail and once this program is completed it should assist in giving confidence to the integrity of the data base.

# 2.Ore resource calculation

Complete a geostatistical study to assist in determining the required data point spacing to comply with CIM resource classifications.

A workable database is being prepared to substantiate a third party ore resource calculation. With the approximately 50 metre grid spacing accomplished during the 2008 and 2009 drilling programs, the Company should be able to complete a preliminary resource estimation that is NI43-101 compliant prior to the start of any potential 2010 drilling.

## 3.Additional geophysics 32-35 km

Extend the geophysics to assist in locating further pegmatites.

## 4.Beneficiation: spodumene concentrate & Li<sub>2</sub>CO<sub>3</sub> test production

Conduct initial beneficiation laboratory scale tests.

## 5.Drilling 18-20 holes Winter 2010

Some drilling was not possible in the summer season due to access problems that will not be an issue when everything is frozen and snow drifts facilitate pad construction.

Items 1-5 Drilling 1,500 metres, assaying and supervision <b>Total Phase 1</b>	\$150,000 <u>\$200,000</u> <b>\$350,000</b>
Phase II is contingent upon the results of Phase I:	
Phase II will be conducted in the summer of 2010.	
Diamond Drilling 40 holes, 3,000 metres in total Assaying and interpretation <b>Total Phase II</b>	\$400,000 <u>\$   50,000</u> <b>\$450,000</b>
Total Phase I and Phase II	\$800,000

## 23.0 References

Summary on the Mineral Potential of the Cyr Lithium Prospect, Gilles J. Boisvert, February 10, 1989, Val D'Or Quebec

Reconnaissance des Pegmatities a Spodumene, Riviere Eastmain, Territoire de la Baie James, Guy Valiquette, February 1974

GESTIM Plus, Management of Mining Titles Online, Map Consultation, September 2007

Geological and Metallogenic Synthesis of the Middle and Lower Eastmain Greenstone Belt (James Bay), Moukhsil, A, Legault, M, Goily, M, Doyon, J, Sawyer, E, Davis D W., 2007

Petrogenesis of Lithium-rich Pegmatites, David B. Stewart, 1978

Black Pearl Minerals Consolidated Inc., Press Release dated March 6, 2008.

Report 2008 Diamond Drilling Program Cyr-lithium Property (33c/03), James Bay by Coniagas Resources Ltd. Report by A. James McCann, November 20, 2008, McCann Geosciences, Quebec

## 24.0 Date and Signature Page

# **CERTIFICATE of AUTHOR**

I, Geoffrey S. Carter P. Eng., do hereby certify that:

- 1 I am a Principal of: Broad Oak Associates 365 Bay Street, Suite 304 Toronto, Ontario, Canada, M5H 2V1
- 2. I graduated with an Honours Bachelor of Science (1968) degree in Mining Engineering from University of Wales, University College Cardiff, South Wales, UK in 1968
- 3. I am a member of the Professional Engineering Association of Manitoba, (5341) and I am a Professional Engineer in Ontario, (100084354. I am also a member of the Canadian Institute of Mining and Metallurgy.
- 4. I have practiced my profession in excess of thirty five years.
- 5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education and past relevant work experience, I fulfill with requirements to be a "qualified person" for the purposes of NI 43-101. This report is based on my personal review of information provided by the Issuer and on discussions with the Issuer's representatives. My relevant experience for the purpose of this report is:
  - Anglo American Corporation 1968-1983, Mine Engineer, General Mine Foreman, Hudson Bay Mining and Smelting Limited, Vice President Operations Inspiration Coal.
  - Senior Mining Engineer Project Technical Evaluation Hudson Bay Mining and Smelting Co. Limited 1980-1981
  - Mining Analyst, Midland Doherty, 1983-1986
  - Author of several Technical Reports, 2002-2008
- 6. I am responsible for the preparation of the technical report titled Technical Report and dated November 10, 2009 (the Technical Report) related to The James Bay

Lithium Project. I visited the property on November 8, 2007 and August 11, 2009.

- 7. I have not had prior involvement with the properties that are the subject of the Technical Report.
- 8. As of the date of this certificate, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
- 9. I am independent of the issuer applying all of the tests in section 1.4 of National Instrument 43-101.
- 10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
- 11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated the 10<sup>th</sup> day of November, 2009.

Ignature of Geoffrey S. Carter, P. Eng.



#### Geoffrey S. Carter

Printed name of Geoffrey S. Carter, P. Eng.

Geoffrey S. Carter Broad Oak Associates 365 Bay Street, Suite 304 Toronto, Ontario Canada, M5H 2V1 Tel: 416-594-6672 Fax: 416-594-3446 Email: <u>BOA@Broadaok.ca</u> REÇU AU MIRNF 26 MARS 2014 Direction des titres miniers

James Bay Lithium Project

48

1394173

#### 24.0 Date and Signature Page

# **CERTIFICATE of AUTHOR**

I, Geoffrey S. Carter P. Eng., do hereby certify that:

- 1 I am a Principal of: Broad Oak Associates 365 Bay Street, Suite 304 Toronto, Ontario, Canada, M5H 2V1
- 2. I graduated with an Honours Bachelor of Science (1968) degree in Mining Engineering from University of Wales, University College Cardiff, South Wales, UK in 1968
- 3. I am a member of the Professional Engineering Association of Manitoba, (5341) and I am a Professional Engineer in Ontario, (100084354. I am also a member of the Canadian Institute of Mining and Metallurgy.
- 4. I have practiced my profession in excess of thirty five years.
- 5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education and past relevant work experience, I fulfill with requirements to be a "qualified person" for the purposes of NI 43-101. This report is based on my personal review of information provided by the Issuer and on discussions with the Issuer's representatives. My relevant experience for the purpose of this report is:
  - Anglo American Corporation 1968-1983, Mine Engineer, General Mine Foreman, Hudson Bay Mining and Smelting Limited, Vice President Operations Inspiration Coal.
  - Senior Mining Engineer Project Technical Evaluation Hudson Bay Mining and Smelting Co. Limited 1980-1981
  - Mining Analyst, Midland Doherty, 1983-1986
  - Author of several Technical Reports, 2002-2008
- 6. I am responsible for the preparation of the technical report titled Technical Report and dated November 10, 2009 (the Technical Report) related to The James Bay

James Bay Lithium Project

47

#### **CONSENT OF AUTHOR**

To: securities commissions and exchanges where filed

I, Geoffrey S. Carter, do hereby consent to the filing of the written disclosure of the report titled Spodumene Resources on the James Bay Lithium Project and dated November 10, 2009 (the Technical Report) and any extracts from or a summary of the Technical Report in the material change report of Lithium One Incorporated and to the filing of the Technical Report with the securities regulatory authorities referred to above.

I also certify that I have read the written disclosure being filed and that it fairly and accurately represents the information in the Technical Report that supports the disclosure of Lithium One Incorporated.

Dated the 10th Day of November, 2009

Signature of Geoffrey S. Carter, P. Eng.



Seal or Stamp

REÇU	AU	mrnf
-28	MARS	7C14
DIRECTION	des tit	RES MINIERS

Geoffrey S. Carter

Printed name of Geoffrey S. Carter, P. Eng

Copyright of Broad Oak Associates (A Division of 930531 Ontario Limited), Head Office: 365 Bay Street, Suite 304, Toronto, Ontario, Canada, M5H 2V1.

James Bay Lithium Project

1394173