**TSX-V: SRA** 

# Corporate Presentation 2014-Q2

# Stria

A NEW SOURCE, A NEW PROCESS FOR GREEN TECHNOLOGY LITHIUM

# Disclaimer

This presentation contains "forward-looking information" within the meaning of Canadian securities legislation. All information contained herein that is not clearly historical in nature may constitute forward-looking information. Generally, such forward-looking information can be identified by the use of forward-looking terminology such as "plans", "expects" or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur" or "be achieved". Forwardlooking information is subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of the Company to be materially different from those expressed or implied by such forward-looking information, including but not limited to: (i) volatile stock price; (ii) the general global markets and economic conditions; (iii) the possibility of write-downs and impairments; (iv) the risk associated with exploration, development and operations of mineral deposits; (v) the risk associated with establishing title to mineral properties and assets; (vi) the risks associated with entering into joint ventures; (vii) fluctuations in commodity prices; (viii) the risks associated with uninsurable risks arising during the course of exploration, development and production; (ix) competition faced by the resulting issuer in securing experienced personnel and financing; (x) access to adequate infrastructure to support mining, processing, development and exploration activities; (xi) the risks associated with changes in the mining regulatory regime governing the resulting issuer; (xii) the risks associated with the various environmental regulations the resulting issuer is subject to; (xiii) risks related to regulatory and permitting delays; (xiv) risks related to potential conflicts of interest; (xv) the reliance on key personnel; (xvi) liquidity risks; (xvii) the risk of potential dilution through the issue of common shares; (xviii) the Company does not anticipate declaring dividends in the near term; (xix) the risk of litigation; and (xx) risk management. Forward-looking information is based on assumptions management believes to be reasonable at the time such statements are made, including but not limited to, continued exploration activities, no material adverse change in metal prices, exploration and development plans proceeding in accordance with plans and such plans achieving their stated expected outcomes, receipt of required regulatory approvals, and such other assumptions and factors as set out herein. Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in the forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such forward-looking information. Such forward-looking information has been provided for the purpose of assisting investors in understanding the Company's business, operations and exploration plans and may not be appropriate for other purposes. Accordingly, readers should not place undue reliance on forward-looking information. Forward-looking information is made as of the date of this press release, and the Company does not undertake to update such forward-looking information except in accordance with applicable securities laws.

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# Stria Lithium Inc.

- On May 5, 2014 Stria Capital shareholders approved a proposal to change the company's name to Stria Lithium Inc. to more accurately reflect and promote the company's core activities
- Stria is the sole owner of the Pontax spodumene lithium property in Northern Quebec, and the Willcox brine lithium property in Arizona
- Stria has embarked on a strategically sound, technology-oriented business path to develop a proprietary, upstream processing technology for the Pontax resource, and; to further refine an existing, proven brine processing technology for the Willcox project
- On May 20, 2014 Stria announce the **successful completion of its Phase 1** "proof of principle" development of a novel hard rock ore-to-lithium chloride process
- Stria intends to employ these proprietary technologies to create a competitive advantage by dramatically reducing mining production costs



### Overview

- 1. Lithium
- 2. Market
- Demand

Applications

Supply

Facts

- Prices
- Production
- 3. Stria
- Strategic Alliances
  - Exploration properties
  - Proprietary Process
  - Team

### The Facts

- Lithium is the green mineral of the future
- Lithium batteries comprise 30% of the market
- But hold the largest growth potential
- No substitute for lithium in portable devices
- · Historically controlled prices
- Stria owns a Proprietary Process to produce
  High Purity Li-Metal from Spodumene
- Strategically positioned and aligned with technology partners



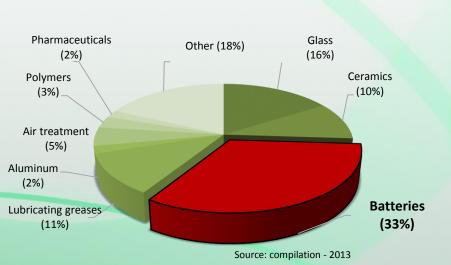


# **Industrial Applications**

### 1. Chemical Application

- Energy storage (rechargeable, grid storage)
- Lubricant grease
- Aluminium smelting, polymers
- Air treatment
- Medical applications
- 2. Technical Application (low impurities)
  - Glass products (containers, bottles, fiberglass)
  - Ceramics (glazes, porcelain enamels)
  - Specialty Applications

Lithium is a soft metal, the **lightest** in the periodic table



Discovered in 1817 by

Johan August Arfvedson

Swiss chemist.

Stria LITHIUM

### Demand

- Between 2000 and 2012 Li consumption 7 5.6%
- China (30%) is the largest consumer of Li, followed by EU, Japan
- Li batteries are the fastest growing use: 65% GLC<sup>1</sup> by 2025
- Grid Storage is taking a growing place
- New entrant is changing the actual demand picture of GLC<sup>1</sup>



Battery Uses	Li contents	CAGR <sup>2</sup> 2011-25	250,000 -	
Pure Electric Vehicles (EV)	8-40 kg		200,000 -	
Plug-in Electric Vehicles (PHEV)	1-10 kg - 2	7.3%		
Hybrid Electric Vehicles (HEV)	0.8-2 kg		150,000 -	10%py
Grid Storage	kilos 2	1.3%	100,000 -	
Power tools Batteries	40-60 g 4	.7%	50,000 -	
Laptop Batteries	30-40 g		50,000 -	
Tablet Batteries	20-30 g - 9	.7%	2000 2001 2002	2003 2004 2005 2006 200
Mobile Phones	8-25 g		Rechargeable batteri	es Ceramics
			Glass	Metallurgical powders

Consumption by End-Use (modified from Fox-Davies, 2013)



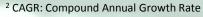
2010 2011 2012 2013 2014 2015 2016 2017

2007 2008 2009

Polymer

11%p

<sup>1</sup> GLC: Global Lithium Consumption



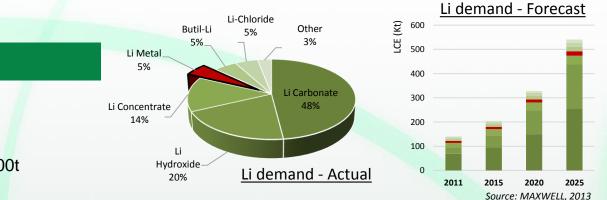


Aluminium

300.000

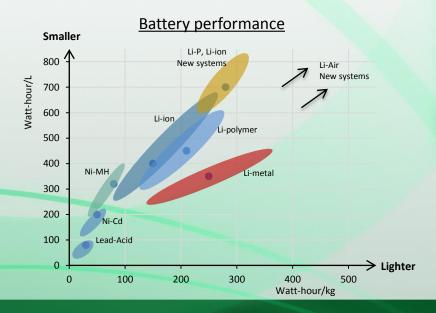
# Demand

### By Compound



### Li Batteries

- Store 3x more energy
- Environmentally friendly
- Consumption of LCE<sup>2</sup> in 2013: 55,000t
- By 2021: 240,000t
  - Rechargeables accounted for 27% GLC<sup>1</sup> in 2012
  - Estimated 65% by 2025
  - Batteries in mobile phones alone hold 8-25 g
  - 1.75-1.93B mobile devices were sold in 2012
- By 2025, 50% of the Li requirements for hybrid electric cars will be in the form of lithium hydroxide



<sup>1</sup> GLC: Global Lithium Consumption <sup>2</sup> LCE: Lithium Carbonate Equivalent

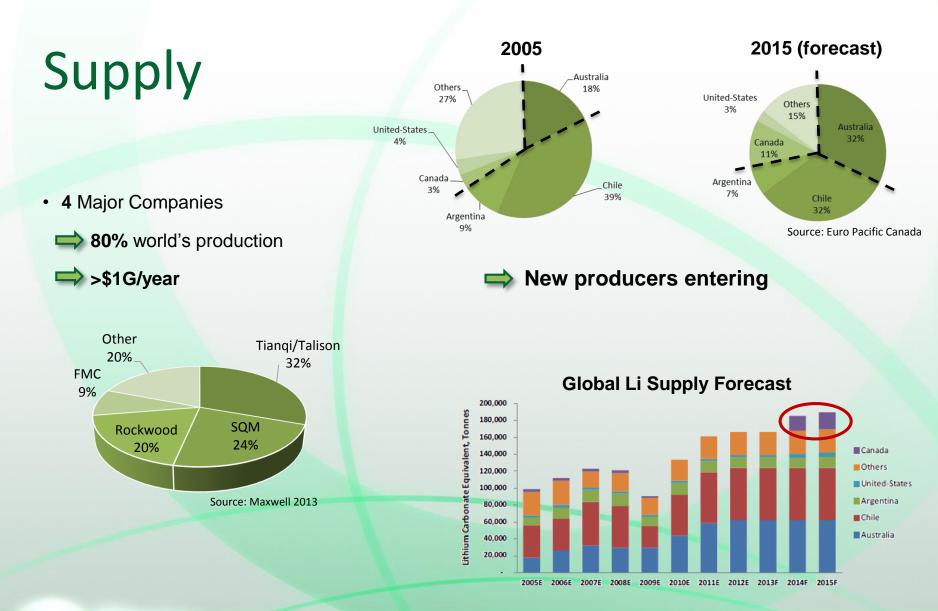


# Supply

- Global Li resources: 30M t (not all viable)
- Global Li reserves: ~13M t





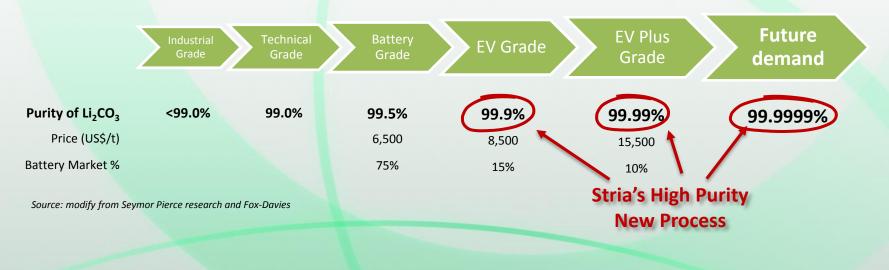




# Supply

The battery industry requires higher purities at lower costs

### Lithium Battery Grade and Price





### **Production** – 2 major sources



Greenbushes operation, Australia



# Production

### Brines

- Large global suppliers: ~ 70% world's Li production (2011 & 2012)
- Playas, Li-rich salt
- Low grade (200 1,400 mg/l Li)
  - ➡ Large Volume
  - ➡ Large Footprint
- Time: pumped and concentrated by evaporation (18-24 months), lithium recoveries are typically 40-50%
- Evaporation and production rates are **sensitive** to elevation and climate conditions

### Hard Rock

- Most hard rock Li processing is from pegmatite ore bodies
- Spodumene-rich pegmatites
- Higher grades

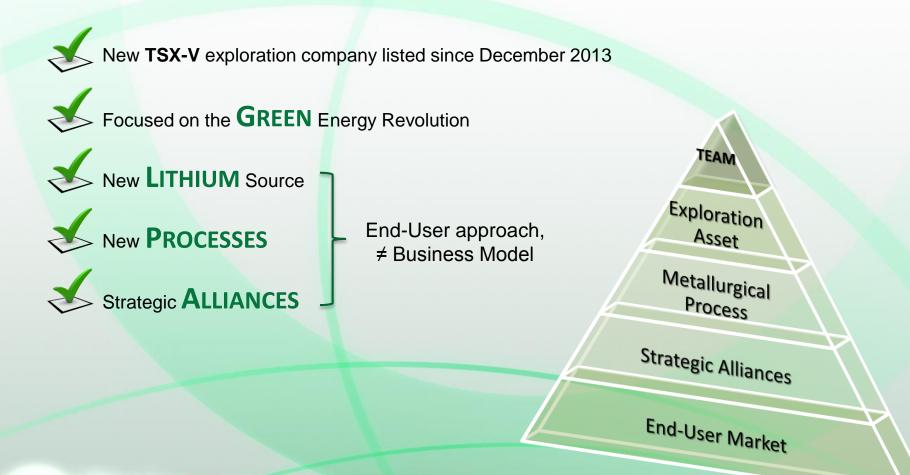
Smaller Volume

### Smaller Footprint

- Conventional mining, recovery involves concentration by flotation, followed by hydrometallurgy and precipitation
- Processing recoveries for battery-grade Li are on average 50%
- Quebec and Ontario known for their spodumenerich pegmatites

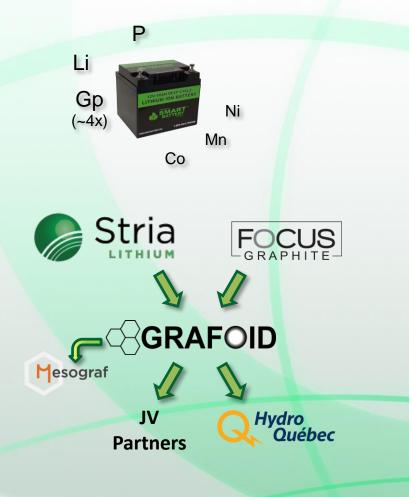


# Why Stria Lithium?





# **Strategic Alliances**

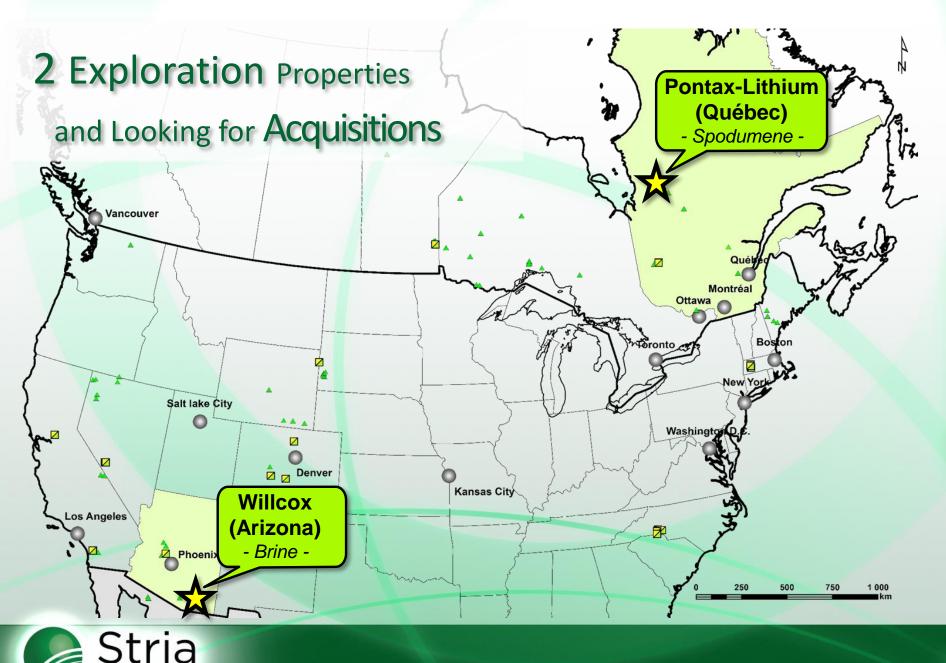


### Grafoid – Hydro-Quebec JV MLFP Battery

- November 2012, **Grafoid** entered into a 50/50% long-term agreement with Hydro-Quebec's research institute IREQ to develop a quick-charge, long-life **MesoGraf**<sup>™</sup> lithium iron phosphate (MLFP) battery for the consumer electronics and electric vehicle markets.
- Given that lithium iron phosphate appears to offer the best safety, lifespan and cost balance at a reasonable performance, it is believed that LFP will set the global standard.
- These batteries require higher amounts of lithium than traditional Li-ion batteries
- Patents are currently being filed

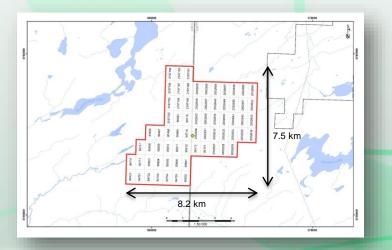


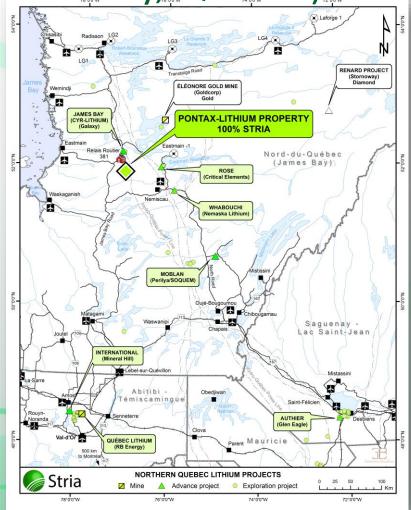




Corporate Presentation - May, 2014

- Acquired in 2013, 100% ownership
- · No Royalties attached to the property
- The project currently encompasses a contiguous group of **70 map designated cells**, for an area of 3,718.84 hectares.







- A total of 198.28 m of **channel samples** were cut on the surface (2009 & 2012), plus
- 864 m of drill core were recovered from 7 holes (2009)

### 2009 Drill program Best Assays

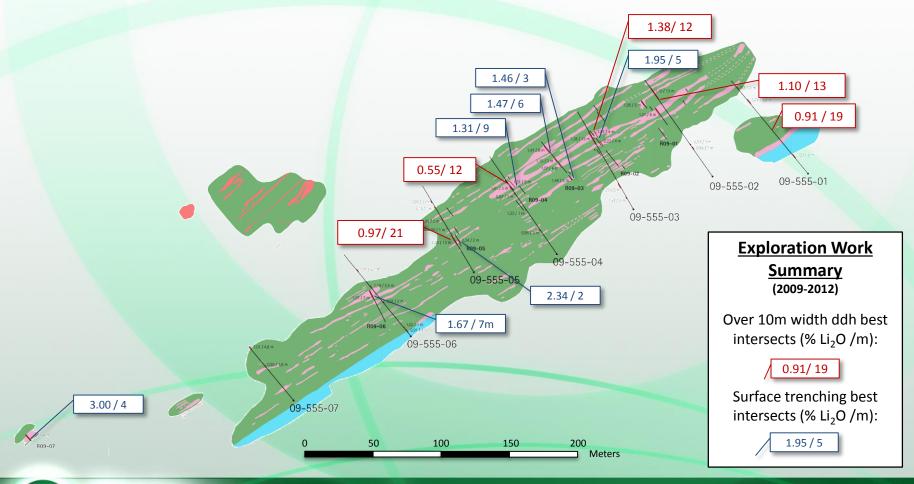
Hole	From	То	Length	Grade Li <sub>2</sub> O
09-555-01	46.85 m	65.85 m	19.0 m	0.91%
09-555-02	98.50 m	111.50 m	13.00 m	1.10%
09-555-03	83.00 m	95.00 m	12.00 m	1.38%
09-555-04	78.00 m	90.00 m	12.00 m	0.55%
09-555-05	36.00 m	57.00 m	21.00 m	0.97%



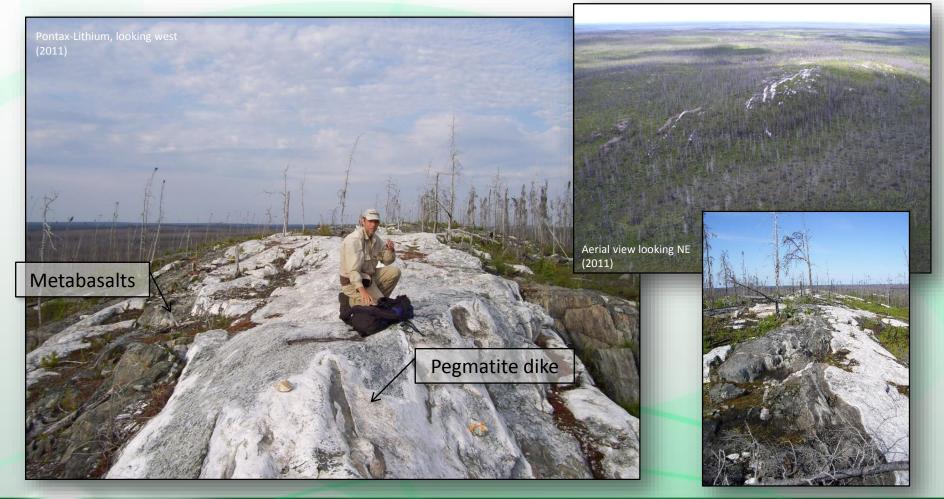
Trenching program (2009)

Drill program (2009)





Stria





### 2014-15

- 1. (Done) Sampling Program (5 samples of 20kg each)
- 2. (Q2-14) Ongoing work in KIC<sup>1</sup>:
  - a) Mineralogical Study and
  - b) Metallurgical testing program:
    - Phase I (Q2-14): Validation COMPLETED
    - Phase II (Q3+Q4-14): Pilot Plant testing
    - (Q3-14): Follow-up exploration program by: Phases and Next Step Decisions

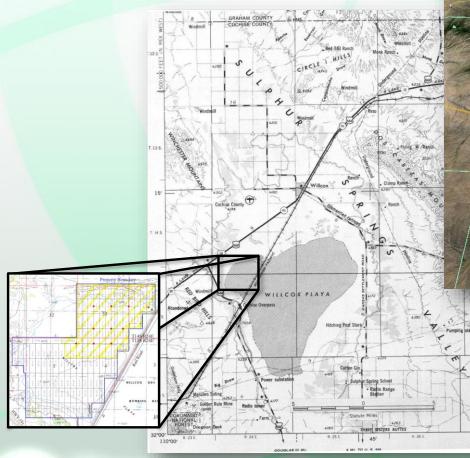


Abundant Spodumene in a pegmatite dike on Pontax

<sup>1</sup> KIC: Kingston Innovation Center



# 2. Willcox (Arizona)



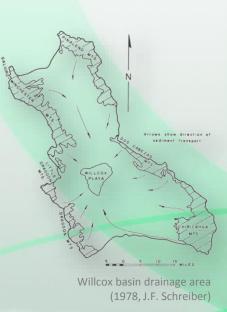


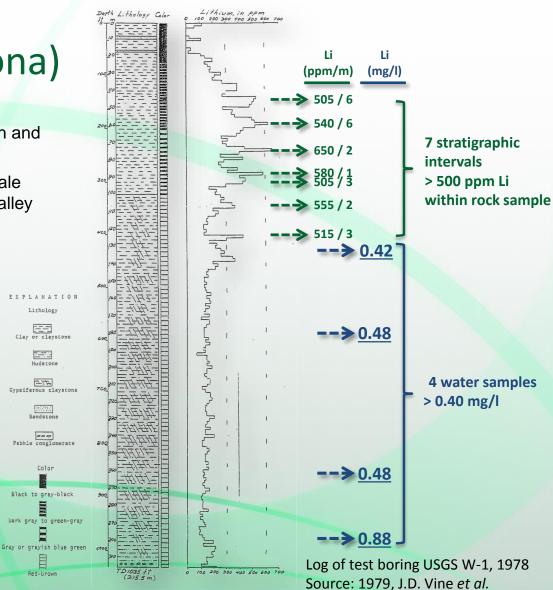
- 100% ownership
- 61 lode mining claims located in Cochise County, Arizona
- Known for its lithium brine content since 1978



# 2. Willcox (Arizona)

- Pleistocene Epoch lake within the Bassin and Range province
- Surrounded mountain ranges = large-scale faulting, large erosion and filling of the valley with alluvial deposits
- USGS 1978 drill test hole



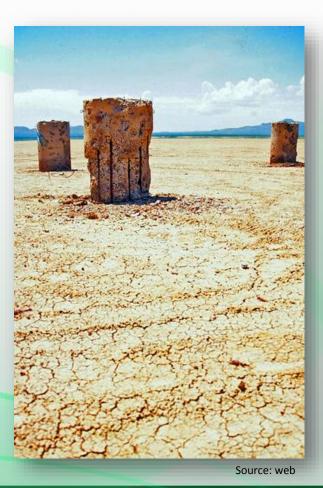




# 2. Willcox (Arizona)

### 2014 - 15

- 1. Q2: Validate USGS hole:
- 2. Q2-3: Test Proprietary process for recovering Li from solvent (underground water)
- 3. Q3-4: Subsequent Exploration program by **Phases and Next Step Decisions**





# **2 Proprietary Processes**

### 1. « Hard Rock » (spodumene)

Spodumen Ore Crushing & Grinding Proprietary Process

#### Novel Process:

· More efficient,

· Fewer controls, and

· Less chemistry

#### Other Li Compounds

- · Li-Chloride,
- · Li-Carbonate or
- Li-Hydroxide



Source: D. Johnson



- White cement (pure Aluminum Silicate, cement industry)

- Ferric-Chloride (water treatment purification)

### Reducing costs

Environmentally sustainable

A Typical Pilot Plant Note the complexity of the various unit operations

**High Purity** 

Li-Metal

Stria

# **2 Proprietary Processes**

### 2. « <u>Brine</u> » type



Pumping & Membrane

Proprietary Process

#### Novel Process using :

- · Solvent extraction,
- · Ion exchange, and
- Membrane technologies

#### Other Li Compound

**High Purity** 

Li-Metal

- · Li-Chloride,
- · Li-Carbonate or
- · Li-Hydroxide



Source: D. Johnson



Solvent exchange

**Pilot Plant** 

### Process – Hard Rock

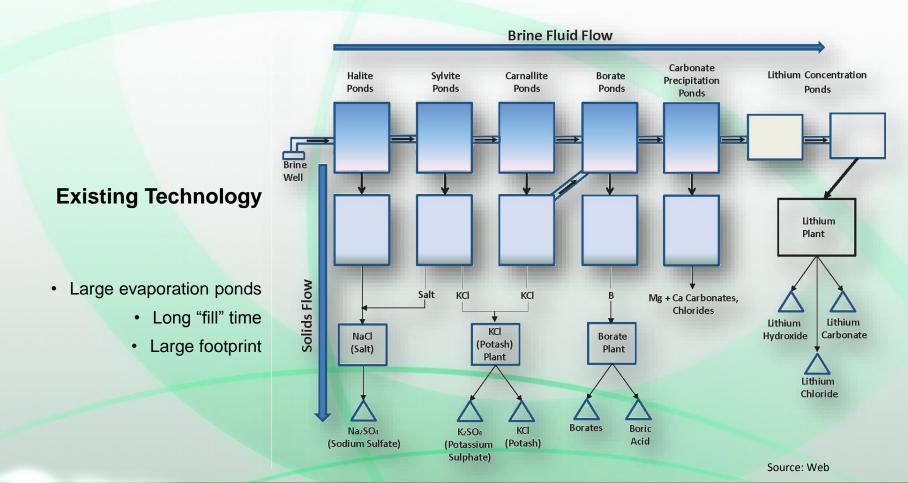
- Results in Li-Metal but modified, can produce high purity:
  - Li-Chloride,
  - Li-Carbonate or
  - Li-Hydroxide
- By-Products:
  - White cement (pure Aluminum Silicate, cement industry)
  - Ferric-Chloride (water treatment purification)





Source: EuroPacific 2013

### Process – «Brine Type»





# Our Team, our Strength

### Key Management

Gary Economo, CEO & Co-Founder

Over 30 years high tech experience, including as President and CEO of SPI technologies selling graphite products

• Julien Davy, President & COO - Qualified Person under NI 43-101

Geologist and MBA with 18 years experience in mid tier exploration companies

Judith Mazvihwa-MacLean, CFO & Secretary

CFO, CMA and geologist with eight years accounting experience in the mining sector

### • David Johnson, P.Eng., Chief Technology Officer

Over 30 years in metal process development and design, including former Alcan engineer for 13 years; founder, VP of Technology, and Director of Cobatec Ltd., Argento Plata Metals Ltd. (now a part of Molycorp) and Quantoxbury Technology Group Ltd. and; founder and principal of ALCERECO Inc.



# Our Team, our Strength

### **Board of Directors**

- Jeffrey York, Chairman of the Board Former President and COO of Giant Tiger stores, currently CEO of Farm Boy stores.
- Gary Economo, CEO & Director
- Marc-André Bernier, M.Sc., P.Geo., Director and technical adviser

Geologist with 30 years of experience, he is a director of Focus Graphite Inc., Mincom Capital Inc., and Majescor Resources Inc. and VP of the Board of Directors of the SADC de Chibougamau-Chapais

### Chester Burtt, Director

President of Chester Burtt & Associates Ltd. ("CBAL), a corporate and public affairs advisory firm.

### Robin B. Dow, HBA, MBA, FCSI, Director

Raised more than \$150 M with 35 years experience in financing public resource companies. Currently Chairman and CEO of Galahad Metals Inc., and private companies Pueblo Potash Inc. and Desiree Resources Inc. He is also a director of Mincom Capital Inc.

#### Lindsay Weatherdon, Director

President and owner of Premcorp Sales & Marketing



### **Corporate Structure**

Stria Capital Inc.	912-130 Albert Street, Ottawa, Ontario, K1P 5G4		
Symbol :	SRA		
Exchange :	TSX-V		
Shares issued and outstanding :	15,971,123	Major Shareholder	Ownership
Warrants outstanding :	0	Management & Directors	28.4 %
Options outstanding :	1,563,300	Funds & Institutions	68.1 %





# Conclusion

- **Stria Lithium** is a vertically integrated lithium company building a competitive market advantage
- Battery sector will drive growth the Lithium market
- Green Technology
- New Source, lower environmental impact
- New Process with fewer steps



### Gary Economo – CEO & Co-Founder

geconomo@strialithium.com

Julien Davy – President & COO jdavy@strialithium.com



# Appendix – conversion sheet

#### • Li volume can be presented in different compounds:

- Lithium carbonate (Li<sub>2</sub>CO<sub>3</sub>),
- Lithium Hydroxide (LiOH),
- Lithium Metal (Li)

#### · Li grades may be shown as

- Lithium Oxide (Li<sub>2</sub>O), or
- Li content (Li)
  ex: 1% Li<sub>2</sub>O = 0.465% Li

Ppb by

atoms

50 000

160 430

27

1

0.01 4 600

• LCE (Lithium Carbonate Equivalent)

Table 2: Natural concentrations Li occurrences

Ppb by

weight

1 700

17 000

180

3 000 30

6

0.06

#### Table 1: Conversion factors for Lithium compounds (source: Euro Pacific Canada)

Co	To nvert	To Li	To LiOH	To LiOH-H <sub>2</sub> O	To Li <sub>2</sub> O	To Li <sub>2</sub> CO <sub>3</sub>	To LiAlSi <sub>2</sub> O <sub>6</sub>
Li		1.000	3.448	6.061	2.153	5.324	26.455
LiOł	4	0.290	1.000	1.751	0.624	1.543	7.770
LiOł	I-H <sub>2</sub> 0	0.165	0.571	1.000	0.356	0.880	4.435
Li <sub>2</sub> O		0.465	1.603	2.809	1.000	2.476	12.500
Li <sub>2</sub> C	03	0.188	0.648	1.136	0.404	1.000	5.025
LiAl	Si <sub>2</sub> O <sub>6</sub>	0.038	0.129	0.225	0.080	0.199	1.000

#### Table 5: Types of Electric Cars (Source Euro Pacific Canada

Туре	A b	Engine	Description
Hybrid Electric Vehicles	HEV	Combustion & Electric motor	Start/stop system and a regenerating braking energy system to charge the battery; in some hybrid models the combustion engine is used to charge the electric motors that drive the vehicles;
Plug-in hybrids	PHEV	Electric Motor	hybrid vehicles with a rechargeable battery charged using electricity from the grid
"Pure" Electric Vehicles	EV	Electric Motor	battery-powered electric propulsion systems whose battery is charged with electricity from the grid. Electric buses, trucks and bicycles are also available



(source: Web)

Location

Universe Sun

Meteorite

Sea water

Stream

Human

**Crustal rocks**