# FOCUS

## GRAPHITE

## THE ESSENTIAL MATERIAL FOR LOW CARBON ECONOMIES

**Corporate Presentation — January 2019** 



## DISCLAIMER

Forward Looking Information: 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", "might" or "will be taken", "occur" or "be achieved". Forward-looking 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 forwardlooking information except in accordance with applicable securities laws.

Cautionary Notes related to the Value-added Industrial Project: Feasibility studies on any value-added industrial projects are not the same as feasibility studies for mineral projects as defined under NI 43-101 and CIM Definition Standards for Mineral Resources and Mineral Reserves. Although Focus continues to work towards its objective of developing value-added products using graphite concentrate to be produced at the Lac Knife project or obtained from other graphite concentrate producers, the Corporation reiterates its primary objective of advancing the Lac Knife mineral project towards production of large, medium and fine flake graphite concentrate as demonstrated in the Lac Knife Feasibility Study dated August 8, 2014 (a copy of which is available on SEDAR at www.sedar.com). The feasibility of a transformation plant for value-added products remains to be demonstrated and could be determined to be uneconomical and not feasible for the Corporation. It is therefore possible that Focus never move forward with such transformation plant despite its corporate objective to do so. Readers are therefore cautioned against undue reliance on this corporate objective given its uncertainty at the present time. Focus intends to put the Lac Knife deposit into production despite any potential negative decision on the fabrication of value-added products.

Cautionary Notes related to proprietary industrial processes: The Corporation is not disclosing details of its in-house and proprietary purification and physical processing technologies for competitive reasons. The results obtained through independent testing are preliminary and will require additional testing and evaluation. The capacity of Focus to produce graphite value-added products on a commercial scale remains to be demonstrated. Readers are therefore cautioned against undue reliance on these results given their preliminary nature. The scientific and technical information relating to graphite value-added products has been prepared by the Company who is responsible for such disclosure.

Qualified Person: The included scientific and technical information regarding exploration activities as defined in NI 43-101 s. 1.1, was either prepared, reviewed and/or approved by Benoit Lafrance, géo/P.Geo, Ph.D. (Québec), Vice President of Exploration for Focus Graphite Inc. and a Qualified Person under National Instrument (NI) 43-101 guidelines.





### FAST FACTS ON FOCUS GRAPHITE Trades: TSX.V: FMS | OTCQX: FCSMF | FSE:FKC

### **Objective: Develop the Lac Knife Mineral Project**

- Focus Graphite is an advanced mining development company with the goal of becoming a low-cost producer of technology-grade graphite concentrate from its Lac Knife mineral project, 27 km south of Fermont Québec
- Focus expects to sell all or a portion of the Lac Knife graphite concentrate production as is, to both traditional industrial markets (refractory, auto parts, lubricants), but also to the higher value, high-technology green application markets (lithium-ion batteries, fuel cells, electronics, graphene-based industrial products)
- The scope of the Lac Knife mineral project Feasibility Study announced in August 2014 includes mine site graphite concentrate production delivered to Sept-Îles, and does not include any potential value-added graphite product revenue or costs
- Focus is also studying the option to process a portion of the Lac Knife graphite concentrate production to feed a proposed value added industrial transformation plant located in Sept-Îles (the revenue and costs related to the transformation plant are not included in the Lac Knife mineral project Feasibility Study cash flow model).





### **FAST FACTS ON FOCUS GRAPHITE** Trades: TSX.V: FMS | OTCQX: FCSMF | FSE:FKC

#### Lac Knife Graphite Deposit

- 100% ownership ٠
- One of the highest-grade natural flake graphite mineral deposits •
- Mineral Reserve\* of 7.9Mt @ 15% Cg(429 kt @ 23.61% Cg of Proven Mineral Reserve and 7,428 • kt @14.64% Cgof Probable Mineral Reserve).
- January 2017 Mineral Resource Update increased Measured and Indicated resources by 26% •
- Pilot plant metallurgical results was excellent with a 98% total carbon graphite concentrate • product (average grade of all size fractions greater than 200 mesh)
- Mining friendly jurisdiction with excellent regional infrastructure including inexpensive green hydro • electricity in the established mining district of Fermont
- Feasibility Study forecasts a low-cost producer @\$441/t of concentrate delivered to Sept-Îles •
- Recognized by Québec's Plan Nord Québec Government's economic development plan .

\*The Mineral Reserve is included in the Mineral Resource and the point of reference is the mill feed







### **FASTFACTSON FOCUS GRAPHITE** Trades: TSX.V: FMS | OTCQX: FCSMF | FSE:FKC

## FOCUS is a leader in the graphite space and has reached an advanced level of development at its Lac Knife mine project

- Project acquired (100 %) in 2010
- Maiden Mineral Resource Estimate published in 2011
- Preliminary Economic Assessment (PEA) completed in 2012
- Feasibility Study (FS) completed in 2014
- Environmental and Social Impact Assessment (ESIA) submitted to the Québec government in December 2014
- Two off-take agreements executed with **Grafoid Inc.** in 2015
- Succeeded in producing carbon coated SPG for Li-ion batteries from Lac Knife graphite concentrate able to meet the most stringent specifications (2014-2017)

#### Near-term North American graphite producer—addressing North American security of supply of graphite, a "Critical Material"





## WHAT IS NATURAL GRAPHITE

- One of two natural forms of natural carbon; the other is diamonds
- One of the most versatile non-metallic minerals
- Superior electrical and thermal conductivity
- Highest natural strength and stiffness of any material
- One of the lightest of all reinforcing agents
- Chemically inert with a high resistance to corrosion
- High natural lubricity
- Melting point: 3,650°C
- Graphite is a critical mineral in continual demand

#### Graphite Occurs in 3 Natural Forms

Amorphous:	60 - 85% C(Low	purity, low	price, low	growth)
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Flake:

Vein:

- > 85% C(Most desirable, greatest demand)
- > 90% C(Very niche applications, small market, flat growth)

## Flake graphite is the most sought-after form of graphite; vital to top demand markets today and tomorrow





## **GLOBAL GRAPHITE CONSUMPTION**

Graphite is predominantly used in traditional refractory applications when refining steel and in industrial applications as automotive brakes, clutches, gaskets, and lubricants...; but green technologies will drive future demand for battery energy storage...)

- Future demand is being driven by green technologies including
  - Li-ion batteries
  - Fuel cells
  - **Energy Storage**
  - Electronics
  - Construction materials
  - Nuclear
  - Graphene markets
- There is up to **11 times** more graphite than lithium in a typical Li-ion battery
- 17% annual growth in the Li-ion Battery Industry
- 37% annual growth in the Electric Vehicle Market

#### 2028 Annual Demand

• +1.5 million tonnes of additional graphite needed to meet forecast market demand (24% growth per year)

Source: Roskill 2018









**Flake Graphite Demand in Tonnes (2013)** 

Total: 375,000 tpa

- Other 10,000
- Industrials 80,000
- O Batteries 82,000
- Refractories, Foundries, Crucibles 185,000

Source: **Industrial Minerals 2014** 



## **Future Demand For Natural Flake Graphite**

In 2018, Focus Graphite commissioned an independent study of the global market for natural flake graphite for electric vehicles and energy storage systems. The study is to support the pre-feasibility work being undertaken to develop Focus' specialty products plant.

- The study forecasts strong demand growth for flake graphite over the next decade to 2028 at 13.5% py with robust growth from the battery sector.
- Higher process and demand will encourage project financing with room for several new projects to come onstream outside China, much of this new supply to feed into the Chinese battery market.
- One way to encourage greater returns is to carry out heavy processing to produce intermediate products, the commercialscale manufacture of spherical graphite and expandable/expanded graphite.

## GRAPHITE

#### World forecast for lithium-ion battery market growth 2018-2028 (GWh):

Energy Storage: 16.8 CAGR (%py)

#### Automotive: 37.7 CAGR (%py)

And the requirement for natural graphite for spherical value-added processing will grow at a CAGR per year of 24%.



## **GLOBAL GRAPHITE PRODUCTION**

US and EU Governments classified Graphite as a "Critical Material" for industrial and national security purposes

- China is the largest graphite producer and exporter (~50% of global output)
- China is beginning to import natural flake graphite to meet demand
- China has established a quota system to control graphite exports
- Largest Chinese producer calling for state-imposed controls similar to REEs—restricting supply and consolidating production
- Objective is to better manage resources, labor and environment

#### USA—No Graphite Mines

• The United States Imports 70,000 tonnes per year

#### Graphite Supply Squeeze

- All flake sizes are in demand
- Strong long-term and increasing demand for graphite, driven by Li-ion batteries



## LAC KNIFE GRAPHITE PROJECT

Lac Knife, Québec, Canada







## LAC KNIFE PROJECT LOCATION

Lac Knife, Québec, Canada

Lac Knife

Québec







## LAC KNIFE PROJECT LOCATION



- Located in northern Québec, 27 km southwest of Fermont
- Large, established iron-ore mining camp and • home to billion-dollar mining projects including ArcelorMittal, RioTinto/IOC, Cliffs
- All infrastructure capacity needed for the project is available. (Electricity & Rail). Access road upgrade included in Feasibility study.
- Located 500 km north of Baie-Comeau along the all-season Highway 389
- ~60 km to the Wabush Airport (YWK) •
- Common carrier Québec North Shore & Labrador *Railway* connected to the Port of Sept-Iles
- Project consists of 57 claims covering 3,000 ha or 7,500 acres







Québec is a mining friendly jurisdiction and the city of Fermont is located in a well-established mining camp with excellent regional infrastructure.

Stakeholders are interested in diversifying the local economy and support the project



## LAC KNIFE MINERAL PROJECT FEASIBILITY STUDY

Filed August 8, 2014



## UPDATED MINERAL RESOURCE MODEL – Jan 24th, 2017



Mineral resources are not mineral reserves and have not demonstrated economic viability



### Lac Knife Open Pit Mine

700 metres Long400 metres Wide100 metres Deep



#### MINERAL RESOURCE ESTIMATE UPDATE & OPEN PIT MINERAL RESERVES

- 2014 drilling located south of the pit is now included in MRE update
- 26% Increase in Measured and Indicated Categories



#### Lac Knife Mineral Resource Estimate – Update Jan. 24th, 2017

@ 3% Graphitic Carbon (Cg) Cut-offGrade

Categories	Tonnage (tonnes)	Graphitic Carbon	In Situ Graphite (tonnes)
Measured	447,000	21.45 %	96,000
Indicated	11,654,000	14.38 %	1,675,000
Measured and Indicated	12,101,000	14.64 %	1,771,000
Inferred	2,229,000	16.20 %	372,000

#### Lac Knife Open Pit Mineral Reserves

@ 3% Graphitic Carbon (Cg) Cut-off Grade

Categories	Tonnage (tonnes)	Graphitic Carbon	In Situ Graphite (tonnes)
Proven	429,000	23.61 %	101,000
Probable	7,428,000	14.64 %	1,088,000
Proven and Probable	7,857,000	15.13 %	1,189,000

The Measured and Indicated Mineral Resources are inclusive of those Mineral Resources modified to produce the Mineral Reserves. The reference point for the Mineral Reserves is the mill feed.





## **FEASIBILTY STUDY**

323,670 tpy

44,300 tpy

\$441/tonne

USD\$1,713/tonne

\$20M

\$56M

1.26:1

1.7:1

Filed August 8, 2014

#### Revenue Estimates

Annual Milling Capacity
<b>Concentrate Production</b>
Cost Per Tonne of Concentrate
Annual Operating Costs
Annual Operating Margin
Selling Price Average
Strip Ratio

First 5 years Life-of-Mine (LOM) average

#### Revenue Breakdown

Large Flake	\$26M
Medium Flake	\$9M
Fine Flake	\$41M
Total:	\$76M

#### Financial Results

Initial Capital Cost	\$166M*		
*Includes \$17M contingend	<i>y</i>		
Net Present Value (Pre-Ta	ax)		
8% discount rate	\$383M		
10% discount rate	\$291M		
Net Present Value (After-	Tax)		

8% discount rate	\$224M
10% discount rate	\$165M

Pre-Tax IRR	30.1%
After-Tax IRR	24.1%

Pre-Tax Payback Period3 YearsAfter-Tax Payback Period3.2 Years





## HIGH-PURITY GRAPHITE CONCENTRATE

#### Flake Size & Purity

#### SGSLakefield Pilot Plant Tests\*

- 11.1% jumbo flake +48 @ 98.8% Ct
- The larger the flake and the higher the purity, the greater the value
- High-grade carbon graphite concentrate produced by flotation translates
  into higher-growth markets and higher-margin products
- High-purity graphite concentrate permits the potential for low-cost Value-Added Graphite Products due to low cost purification processes

Size	Distribution	Total Carbon Grade
Coarse (+80 mesh)	33.5%	98.3%
Medium and Fine (-80 to +150 mesh)	29.8%	<b>98.2%</b>
Fine (-150 to +200 mesh)	16.6%	98.0%
Average of size fractions greater than +200 mesh	80%	98.1%
-200 mesh (microcrystalline or powder)	20%	91.1%
Average Carbon Total Grade of all size fractions	100%	96.6%
Average values from six pilot plant bulk sample runs.		

\* See the 2014 Lac Knife Feasibility Study or the news release dated August 21, 2013 for details







## **REVISED GENERAL MINE SITE LAYOUT**

Waste Rock - Tailings Co-Placement Stockpile





#### "This new design has addresses stakeholder concerns"



## Waste Rock-Tailings Co-Placement Stockpile

- Preliminary Engineering completed and construction method illustrated
- Ready for detailed engineering
- This new design addresses
  stakeholder concerns
  - The liberation or grinding size is 400 microns (0.4mm)
    - Relatively easy to de-water and filter making this an appropriate innovation for the sustainability of the Lac Knife Project







## Lac Knife ESIA Analysis

- ESIA under review by MDDELCC as part of permitting process
  - 1<sup>st</sup> series of answers submitted to the government in October 2016
    - Includes preliminary design of the Co-Placement Waste Rock
      Tailings stockpile, reducing mine site footprint
    - Baseline sampling and assaying of Lac Knife water ongoing
    - Ecometrix has reviewed Kinetic testing of waste rock
    - Dust study completed
    - Mine Closure Plan completed, this will continue to be upgraded prior to and during mine operations
- 2<sup>nd</sup> series of questions submitted in December 2018
- Final submission expected to be completed in Q1 2019





## LAC KNIFE PROJECT FINANCING

- \$166M CAPEX requirement, including \$17M contingency
- Combination of equity and debt may be tied to strategic partnerships based on an offtake agreement
- Discussions with a 6-party consortium ongoing
- Vendor Financing: Concentrator & Mine Equipment
- Discussions underway with potential offtake customers and strategic partners
- Global Marketing Study underway
- Pre-feasibility study underway for value-added products plant





## LAC KNIFE DEVELOPMENT PLAN

#### 2011

- Closed \$15m Bought Deal **Q2** Closed \$20m Bought Deal
- Mineral Resource Estimate Q4

#### 2012

- Closed \$10m Bought Deal **Q1**
- Infill Drilling and Exploratory Drilling Q2 Program at Lac Knife: Total: 5,638 m
- Preliminary Economic Assessment Q4

Federal and Provincial Environmental work for permitting begins

#### 2013

- Q2 Infill Drilling Program at Lac Knife **Commission Pilot Purification Plant**
- **Q**3 Infill Drilling Program at Lac Knife Pilot Plant Results
- Updated Preliminary Economic Q4 Assessment

Industry-First Offtake Agreement

#### 2014

- Updated Mineral Resource Estimate **Q1**
- Successful Production and Testing of Q2 Coated SPGGraphite for Li-ion Batteries
- Feasibility Study Filed **Q**3
- Q4 Pre-Development Agreement with the Uashat Mak Mani-Utenam First Nation

ESIA(Environmental and Social Impact Assessment) Filed

#### 2015-2017

- Project Financing Negotiations
- Offtake Agreement Negotiations
- Next steps Detailed Engineering including Hydro-Québec's mine site powerline connection
- Permitting process ongoing
- Mine Closure Plan submitted with ESIA response to MDDELCC
- Mineral resource update Jan 24, 2017
- **IBANegotiations** planned •

#### 2018-2019

- CAPEX Financing
- **Provincial Permitting**
- Offtake Agreements
- Continued development of value-added products
- Ongoing discussions with potential strategic partners
- Value-added products plant development





## GRAPHITE CONCENTRATE TRANSFORMATION PLANT – SEPT-ÎLES INDUSTRIAL PROJECT

Purified graphite

Expanded graphite



## **TRANSFORMATION PLANT PROJECT**

#### Ongoing DEVELOPMENT PLAN

- Value-added graphite products plant planned for Sept-Iles
- Concentrate will be shipped from the Lac Knife mine project to Sept-Iles for transformation
- Easy transportation routes to Asia and Europe
- Global scoping and market study underway for the value-added plant
- · Feasibility study also underway
- Planned operation expected in 2020







## TRANSFORMATION PLANT INDUSTRIAL PROJECT

Processing flake graphite concentrate into value-added products can give access to higher value markets

- Exceptional battery coin cell tests of high quality coated SPGused in Li-ion batteries was produced using Lac Knife graphite concentrate (May 2014)
- Transformation plant would produce spherical graphite (SPG) and expanded graphite for heat sink foils
- The transformation plant economic study is in accordance with the new Québec Mining Act that requires that an application for a mining lease be accompanied by a preliminary economic assessment regarding transformation of mined products in Québec
- There is potential for higher margins from producing value-added graphite products and this is **not included** in the Lac Knife mineral project Feasibility Study cash flow model



#### In May 2014, Focus Graphite announced the potential for selling to higher margin value added markets, more specifically the lithium-ion battery sector



## LAC KNIFE FLAKE PURIFICATION PROCESS

Concentrating Lac Knife Ore grading 15% graphitic carbon into a Graphite Concentrate grading 98% carbon

**Flotation** Concentrate 96% C Crystalline Flake Graphite

Concentrate after polishing 98.3% C





#### Lac Knife mine site concentrator operation \$441/t

Concentrate from Lac Knife is purified to produce value-added graphite products

**Continuous Thermal Purification** 99.98% C



Proposed transformation plant operation







## **BATTERY-GRADE GRAPHITE**

Why use « Natural Flake Graphite » rather than « Synthetic Graphite » for lithium-ion batteries?

#### Natural Graphite SPGFacts

#### USD\$5,000 per tonne (cost benefit)

Purification and shaping of flake graphite concentrate

- 1. Purification performed at high heat for minutes
- Micronized & Spheronized in one step 2.
- 3. Carbon Coating
- Classification and Drying 4.

#### Natural Graphite Conclusion

- Mining Flake Graphite Ore
- Low Production Costs •
- Hydro-Québec Electricity for entire process ۲
- Lac Knife SPGPerforms 10-20% better than Synthetic •

#### Synthetic Graphite Facts

#### USD\$20,000 per tonne

#### Graphitizing an oil by-product

- Devolatilization: Vacuum Gas Oil 480°C
- Needle Coke (Green Coke Un-Calcined) 2.
- Calcined: Remove traces of oil 1,350°C 3.
- Graphitization @2,800°C for one 4. week
- 5 Micronized & Coated

#### Synthetic Graphite Conclusion

- Larger Carbon Footprint
- **Production Costs Double**
- **Energy Intensive**
- **Time Consuming**
- Not aligned with Green Energy applications



#### Battery manufacturers looking to 'Ethically Source'raw materials





## **COATED SPHERICAL GRAPHITE (SPG)** FROM LAC KNIFE CONCENTRATE

#### (Battery-Grade Product)

Focus Graphite's Coated Spherical Graphite shows superior electrochemical performance metrics when compared with commercial grades of synthetic graphite for lithium ion batteries\*

Coin cell tests of Lac Knife Coated SPGyields a 99.35% efficient lithium ion battery, compared to Commercial Synthetic SPG for Li-Ion batteries that yielded lower battery coin cell test results showing 93.5% and 96.5% efficiency respectively.

Fine Grade of Carbon Coated Spherical Graphite (SPG)			
Focus Graphite Coin Cell Test Samples	Reversible Capacity (Ah/Kg)	Irreversible Capacity 1st Cycle Loss (%)	Capacity After 1st Cycle Loss (Ah/Kg)
Focus Li Ion Fine Grade of Coated SPG D50= 21.44um, Tap Density = 0.93 g/cc Surface Area= 0.44m2/g,	366.0	0.65% (99.35% efficient)	363.6
Commercial Li Ion Synthetic Grade # 1 D50=15.8 um,Tap Density = 0.88 g/cc Surface Area (SA) = 0.97 m2/g	347.2	6.45% (93.55% efficient)	324.8 (10.7% lower)
Commercial Li Ion Synthetic Grade # 2 D50=20.6um,Tap Density = 0.97 g/cc Surface Area = 1.15 m2/g	345.4	3.46% (96.54% efficient)	333.4 (8.3% lower)

Comparison of Two Commercial Fine Grades of Synthetic Graphite with Focus's

The first cycle efficiency of a Li lon battery can be defined as being the percentage ratio of the Capacity after the First Cycle Loss (363.6 Ah/Kg x 100) to the Reversible Capacity (366.0 Ah/Kg).

## see news release dated February 26, 2015 for details





The coated SPG produced from Lac Knife concentrate shows better performance characteristics than the synthetic graphite that is currently used by some wellknown battery manufacturers



## COATED SPHERICAL GRAPHITE (SPG) FROM LAC KNIFE CONCENTRATE

#### (Battery-Grade Product)

Focus Graphite has successfully produced and tested coated Spherical Graphite for lithium ion batteries\*

- Process involves purification, sizing, shaping and coating the Lac Knife flake graphite concentrate
- Test results on the premium medium and fine grades significantly exceeded the performance of benchmark commercially available grades of synthetic graphite and natural flake SPG

Focus Graphite Coin Cell Test Results	Reversible Capacity (Ah/kg)	Irreversible Capacity Loss (%)	Surface Area (m²/g)
Large Carbon coated SPGGrade (D90=42µm)	362.1	6.80	0.64
Standard Carbon coated SPGGrade (D50=24µm)	363.7	1.44	0.48
Fine Carbon coated SPGGrade (D50=17µm)	365.1	1.01	1.14

Abenchmark commercial grade of SPGprovided a reversible capacity (RC) in the range of 345 to 355 Ah/kg and an irreversible capacity loss (ICL) of 6.5 %, a significantly higher loss compared to the 1.44% and 1.01% ICL for Lac Knife's medium and fine grade SPGcoin cell tests

\* see news release dated May 27, 2014 for details







#### Fig. 4 EXTENDEDLONGTERMCYCLINGPERFORMANCEOFLACKNIFE GRAPHTE COMPARED WITH TWOCOMMERCIAL GRADESOFCOATEDSPHERICAL GRAPHTE



FOCUS GRAPHITE Coin cells were cycled between 0.003 and 1.5 volts. Forma)on was carried out with C/10 current density and cycling was carried out at the same voltage limits at C/10



#### Fig. 5 RESISTMITES OF LACKNIFE AND COMMERCIAL GRAPHITES IN LI ION CATHODE MATRIX

#### LiNiMnCoO<sub>2</sub>







## ADVANTAGES OF USING LAC KNIFE GRAPHITE IN BATTERIES

## Key Properties:

- Near Theoretical Reversible Capacity
- Low Irreversible
  Capacity Loss
- Reduced Capacity Fade
  during Long-term Cycling
- High Electrical Conductivity

## End User Advantages:

- Higher Capacity
- Increased Power
- Longer Battery Life
- Increased Utilization of Cathode Active Material





## OTHER PROJECTS



## Lac Tetepisca Deposit

#### Total 34 drill holes = 4,298 metres



#### 2014,2016 & 2017 Drill

#### Programs

Best intersection:

- LT-16-32: 102.1 m @ 10.7% Cg •
- Drill Tested MAG-EM Anomaly 1000m
- length X85 m avg. width Down to 100
- m depth ٠
- See Jan 20th News Release ٠
- Nov 2017 drill program included 38 HQ-٠ diameter holes (total: 5,750 m).See Nov.20th news release
- Metallurgical test ongoing •
- Next step is an initial mineral resource estimate and working towards a preliminary economic assessment

Approximate area of deposit



### Lac Tetepisca

1000 m Long 85 m Wide 100 m Deep



## Kwyjibo Heavy REE Project

- Relatively easy metallurgy (See news release Nov 21<sup>st</sup> 2016)
- Focus Graphite and SOQUEM announced Preliminary Economic Assessment (see June 28, 2018 news release)





### 50-50 Partnership with SOQUEM

#### Relatively simple REEMetallurgy



## **CAPITAL STRUCTURE**

#### Tickers: TSX-V:FMS | OTCQX:FCSMF | FSE: FKC

#### Asof January 7th 2019

Recent Share Price	\$0.035
Market Capitalization	\$13.09M
Shares (Issued & Outstanding)	373,936,342
Options	30,380,000
Warrants	173,683,756
Shares (Fully Diluted)	578,000,098
*Currency is Canadian dollars (CAD\$)	







## **MANAGEMENT & TECHNICAL TEAM**

- **Gary Economo**, Chief Executive Officer, President and Director Distinguished business leadership career, serving as Chief Executive Officer for a number of public and private high technology companies during the last 30 years.
- Judith Mazvihwa-MacLean, CMA, MBA, MSc, BSc, Chief Financial Officer Nearly two decades of experience in mineral exploration, mining, management, and corporate finance
- Joseph Doninger, Ph.D., Director of Manufacturing and Technology Developer and codeveloper of a number of U.S., European and Canadian patents related to carbon processing methodologies and processing equipment





## **BOARD OF DIRECTORS**

#### Jeffrey York

Chairman of the Board

Chief Executive Officer of Farm Boy Inc. A graduate of Princeton University, Mr. York is the former President and Chief Executive Officer of Giant Tiger Stores Limited.

#### Gary Economo

Chief Executive Officer, President and Director

Distinguished business leadership career, serving as Chief Executive Officer for a number of public and private high technology companies during the last 30 years.

#### **Robin Dow**

#### Director

Robin started as a retail and institutional broker, a research analyst and a branch manager and Vice President of brokerage houses in Calgary, AB. In 1988, Robin began Dow Group, leading to a most successful string of public companies.





## LAC KNIFE PRODUCTION COSTS

#### Low Production Costs

- Mining and milling costs are estimated at \$441/tonne of concentrate
- Hydro-Québec electric power < 5¢/kWh
- Peer production costs range from \$390 \$1,300+ / tonne
- Potential to weather economic downturns as a sustainable producer
- The selling price used for the Feasibility Study Cash Flow Summary is USD\$1,713 / tonne of concentrate



"The days of cheap, abundant graphite from China are over"

Industrial
 Minerals
 Magazine,
 (May 2011)



## **THANK YOU!**

#### Gary Economo

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