

# ARDIDEN CORPORATE PRESENTATION: SEYMOUR LAKE LITHIUM PROJECT

## Rapidly Moving from Explorer to Developer...



- LITHIUM Seymour Lake, Wisa Lake, Root Lake & Root Bay Lithium Projects
- GOLD Pickle Lake Gold Properties
- COBALT, NICKEL AND COPPER Bold Properties
- GRAPHITE Manitouwadge Flake Graphite Project

## **CORPORATE OVERVIEW**



ASX Code	ADV
Shares on Issue	964 million
Options on Issue (various)	40M
Share Price	\$0.016
Market Cap @ \$0.016	A\$15.5M (undiluted)
3-Month Range	A\$0.011 - \$0.022
Cash at Bank	\$0.6M

Directors
Neil Hackett: Non Executive Chairman
Brad Boyle: CEO & Executive Director
Dr Michelle Li: Non Executive Director

Major shareholders	%
Top 20 Shareholders	21
Directors/ Management	*3

Strategy to identify and define high quality, near surface economic resources in Tier-1 jurisdictions to enhance shareholder value, focusing on commodities with a strong growth outlook...



# **PROJECT LOCATIONS**



ESTABLISHED TIER-1 MINING DISTRICT, SURROUNDED BY MAJOR MINING DEPOSITS

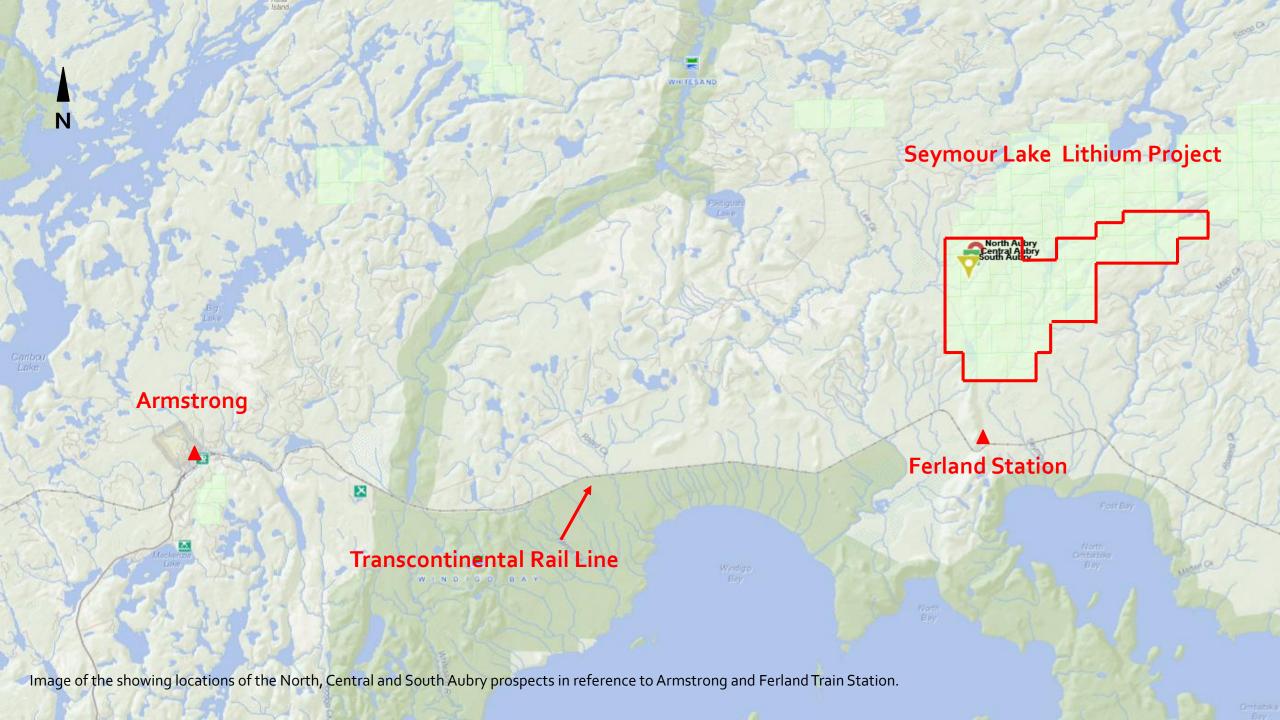


## **SOLID FUNDAMENTALS**

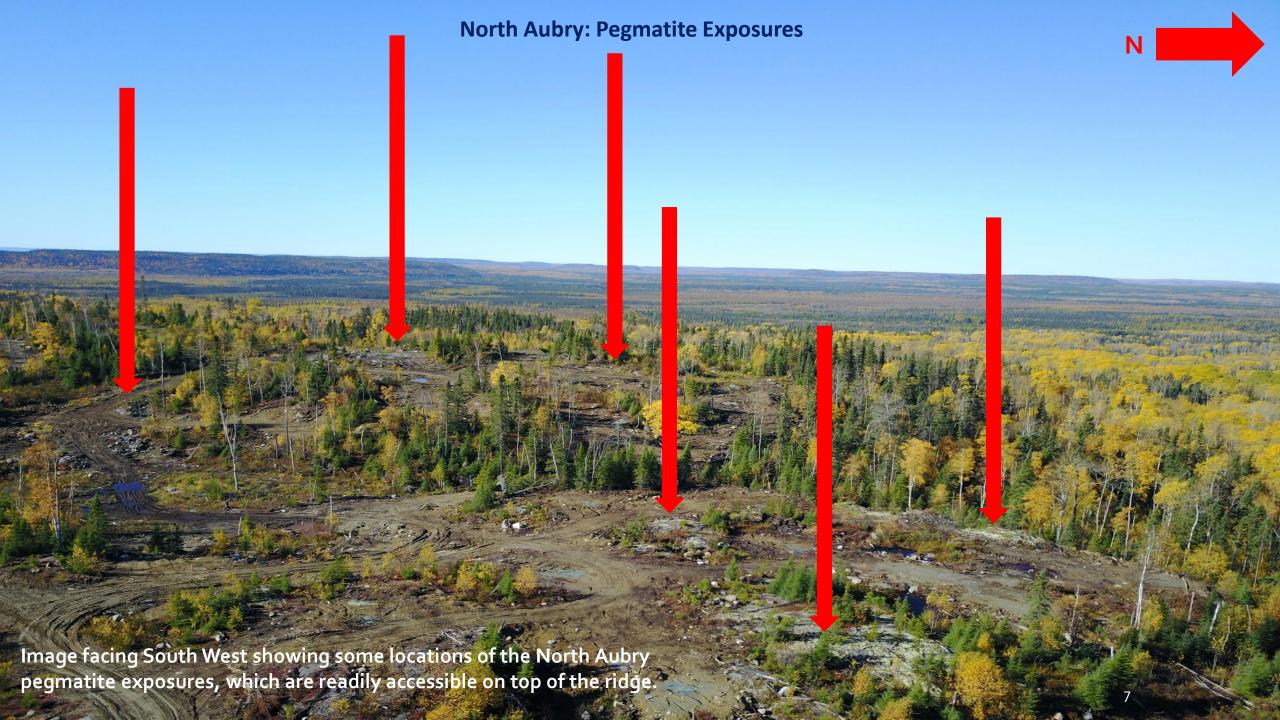


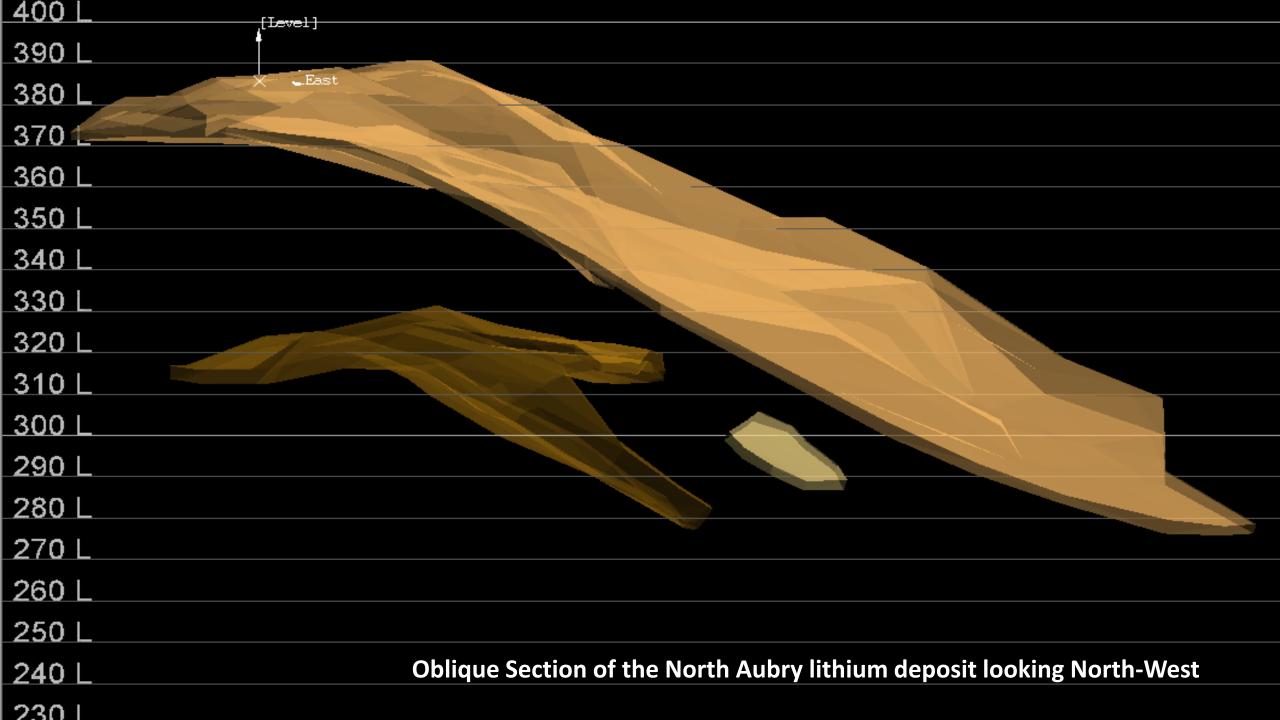
- Mature multi-element asset portfolio with near term development pipeline, currently focusing on energy and battery sector.
- Excellent exploration, drilling and metallurgical results, to support expansion of maiden JORC Lithium resource
- Ontario is an established Tier-1 mining district, with proactive development policies and support
- World class infrastructure (road, rail, power, phone and port facilitates) and direct access to rapidly expanding American & Asian - EV and Energy Storage markets
- All year access to project locations
- Experienced Board, management and technical teams
- Strong provincial support from Ministry of Northern Development and Mines
- Established and good relationships with local first nations groups
- Expansion underway of initial JORC Resource at North Aubry Lithium Deposit
- Binding BOT & Funding Term Sheet with strategic partner Yantai Jinyuan Mining Machinery Co., Ltd
- On-going discussions multiple potential strategic and off-take partners

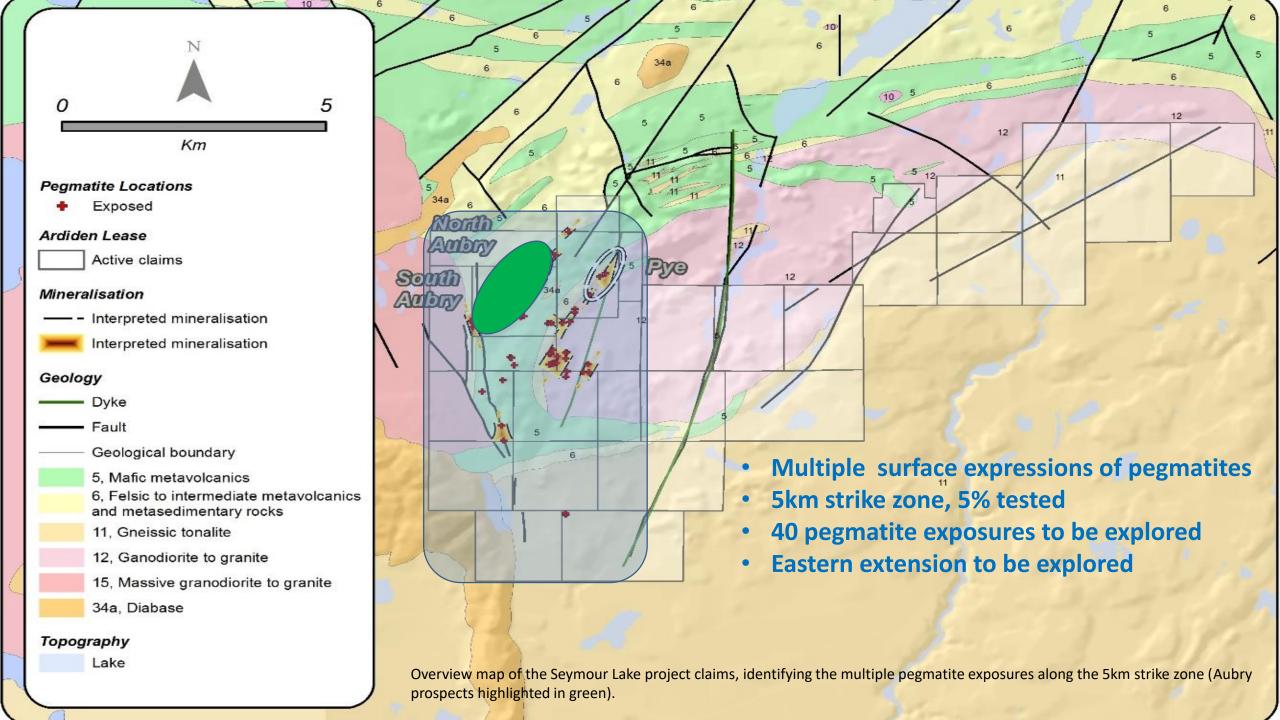


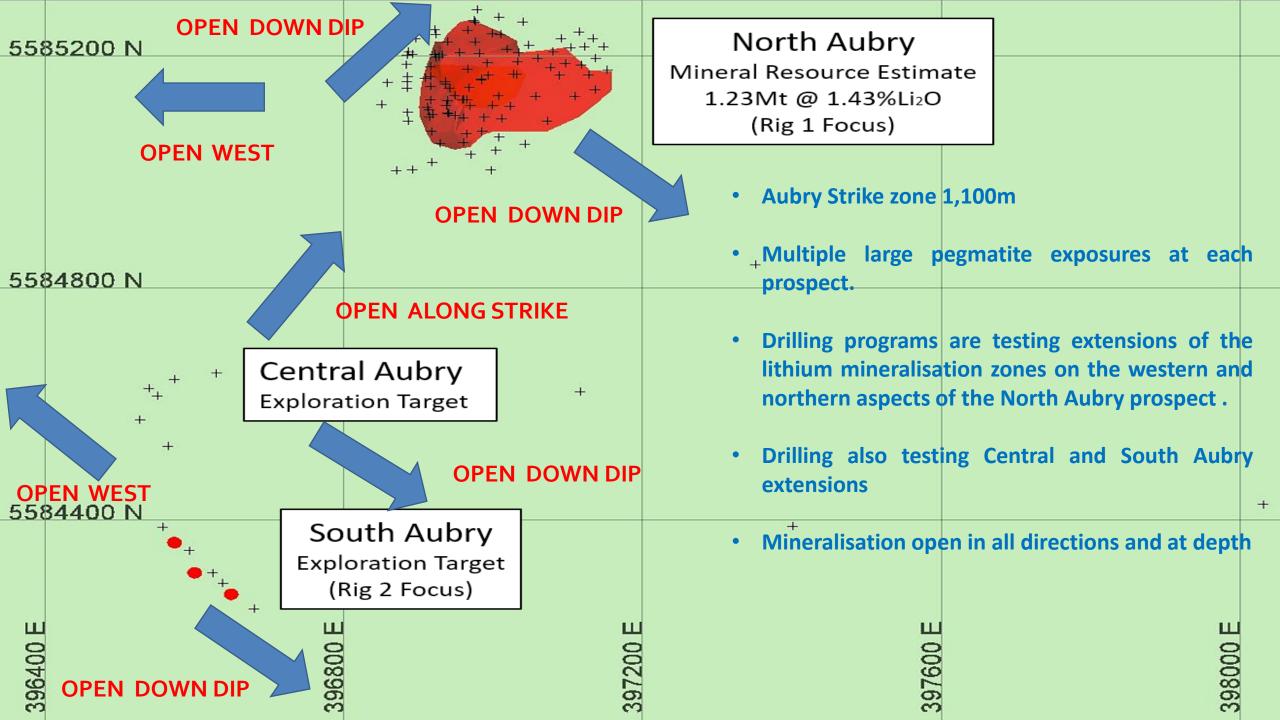












## SEYMOUR LAKE LITHIUM PROJECT



### NORTH AUBRY LITHIUM DEPOSIT...

## **RESOURCE EXPANSION DRILLING PROGRAM UNDERWAY**

- 100% owned Lithium project comprises of 34 Claims with a total 7,019
   Ha.
- Initial maiden JORC compliant Mineral Resource Estimate for the North Aubry deposit at Seymour Lake of 1.23Mt at 1.43% Li2O containing 8.2Kt contained tonnes of lithium (announced 4 October 2017).

Table 1. North Aubry, October 2017 Mineral Resource Estimate Table. (Note that some of the numbers may not equate fully due to the effects of rounding.)

Resource Category	Tonnes (Mt)	Grade Li₂O%	Contained Tonnes of Lithium
Indicated	0.44	1.52	3,100
Inferred	0.79	1.38	5,100
TOTAL	1.23	1.43	8,200

#### **Competent Person's Statement**

The information in this report that relates to Mineral Resource Estimate at the North Aubry deposit on Seymour Lake Lithium project is based on, and fairly represents, information and supporting documentation prepared by Mr James Ridley, who is a Member of the Australasian Institute of Mining & Metallurgy. Mr Ridley is not a full-time employee of the Company Mr Ridley is employed as a Consultant from Jorvik Resources Pty Ltd. Mr Ridley has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Mineral Resources and Ore Reserves (the JORC Code)'. Mr Ridley consents to the inclusion in this report the exploration results and the supporting information in the form and context as it appears.



# **SEYMOUR LAKE LITHIUM PROJECT**



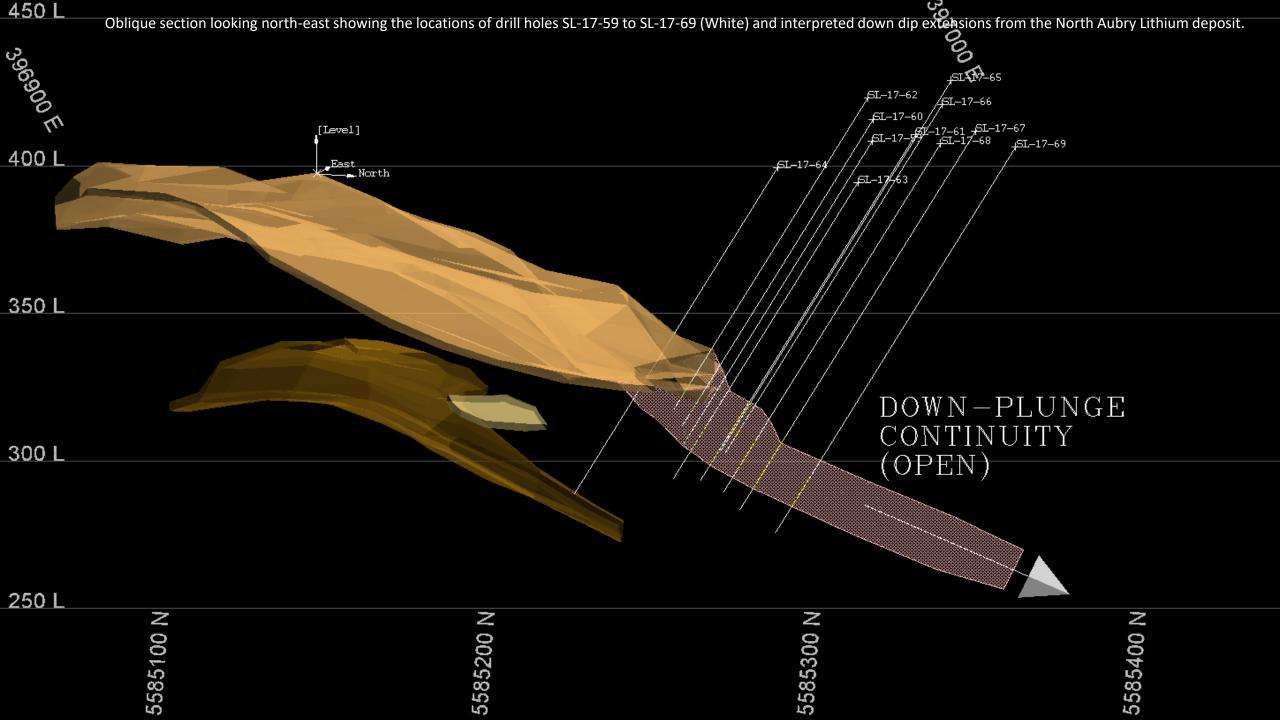
### EXCEPTIONAL LITHIUM GRADES CONFIRMED...

### **RESOURCE EXPANSION DRILLING PROGRAM UNDERWAY**

- Phase 1 of resource delineation drilling program, with outstanding grades of up to 6.01% lithium oxide (Li<sub>2</sub>O) identified.
- At or near surface spodumene-bearing pegmatites identified at North Aubry prospect with collective mineralised zones up to 25m wide encountered.
- Pegmatites express on crest and side of hill.
- Pegmatite zones extended both west and east at the North Aubry prospect
   with the mineralisation remaining open to the east, west and at depth.
- Multiple substantial secondary sills of mineralisation identified beneath and parallel North Aubry contains high-grade lithium mineralisation
- Multiple spodumene-bearing pegmatites intersected at the Central Aubry prospect, remaining open to the north, east and at depth.







## **EXPANSION POTENTIAL...**



- 2016 Field program at Seymour Lake identifies 40 surface exposures confirming the pegmatite swarm at or near surface of multiple pegmatite structures with visible spodumene (lithium-bearing mineral) crystals over a 5km strike length.
- Only about 5% of the regional pegmatites have been drilled, and the broader potential of the project is yet to be fully evaluated.
- Pegmatite development phases successfully classified by Ardiden and Mega Tantalite crystal zones identified at North Aubry and Pye pegmatites.
- Resource expansion drill program ongoing with encouraging results up to 4.38% Li<sub>2</sub>O, showing thick mineralised zones up to 25m wide encountered at North Aubry.
- North Aubry down dip extension open at depth.

## **EXPANSION POTENTIAL...**



- South Aubry successfully intercepts multiple pegmatite sills at or close to surface.
- Thick mineralised zones containing large spodumene crystals were intersected with a down-hole of up to 21.43m thickness (SA-17-15) from shallow depths, with the mineralisation remaining open in all directions.
- Drilling indicates that the pegmatite swarm is potentially connected across the Aubry prospects, extending over a total strike length of 1,100m.
- Planning is underway to complete further exploration drilling across all the Aubry prospects.

# EXPLORATION TARGET FOR AUBRY PROSPECTS



**Exploration Target** for Central and South Aubry prospects of approximately **3Mt to 5Mt** at 1.2% Li2O to 1.6% Li2O(announced 4 October 2017).

The potential quantity and grade is conceptual in nature, and there has been insufficient exploration to estimate a Mineral Resource. The Exploration Target has been reported in accordance with the JORC Code, 2012 Edition on a qualitative basis taking into consideration numerous factors including regional and local context, data support, surface mapping and sampling and historical data. All factors that have been considered are outlined in the Company's ASX Announcement dated 4 October 2017. The Exploration Target is conceptual in nature and should not be construed as a Mineral Resource that may or may not be defined as a result of further drilling and sampling.

#### **Competent Person's Statement:**

The information in this report that relates to Data and Exploration Target at the North, Central and South Aubry on Seymour Lake Lithium project is based on, and fairly represents, information and supporting documentation prepared by Ms Karen Lloyd, who is a Fellow of the Australasian Institute of Mining & Metallurgy. Ms Lloyd is not a full-time employee of the Company Ms Lloyd is employed as a Consultant from Jorvik Resources Pty Ltd. Ms Lloyd has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Mineral Resources and Ore Reserves (the JORC Code)'. Ms Lloyd consents to the inclusion in this report the exploration results and the supporting information in the form and context as it appears.

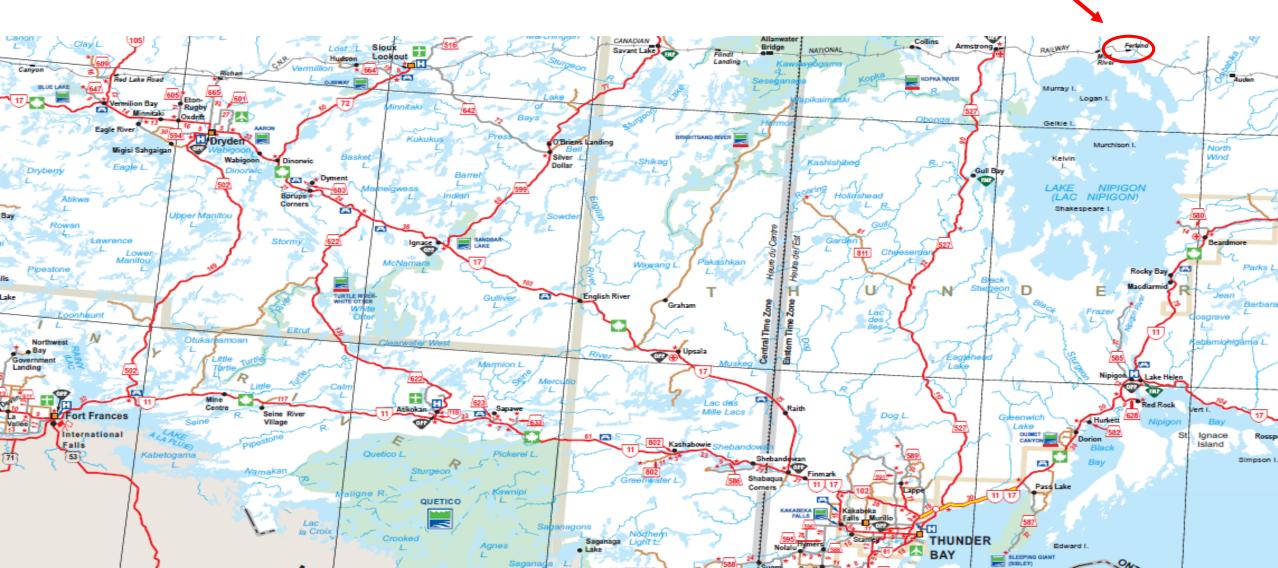
#### PROPOSED EXPLORATION ACTIVITIES DESIGNED TO TEST VALIDITY OF THE EXPLORATION TARGET

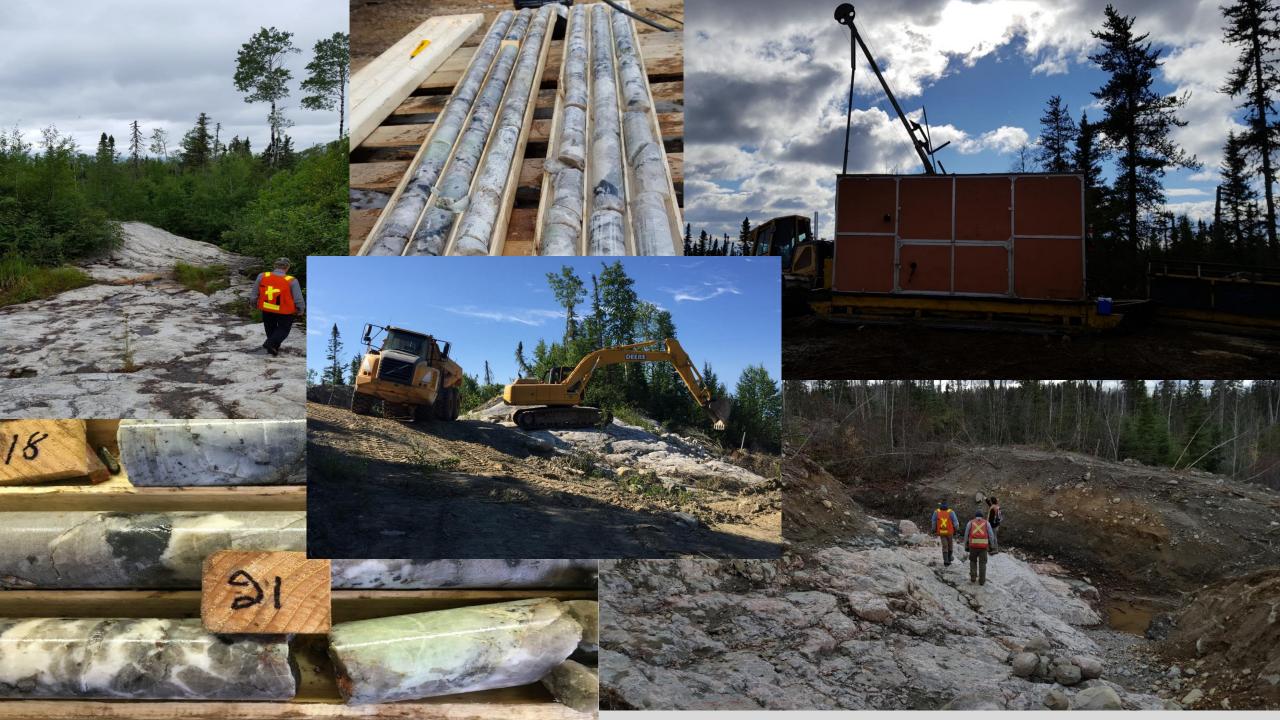
Ardiden is currently designing a further Diamond drill programs over the North, Central and South Aubry prospects that will be undertaken over the next 12 months, to confirm parts of the estimated Exploration Targets. It is anticipated that this drilling will provide the necessary data to estimate a Mineral Resource for parts of these three prospects by late 2018.



## SEYMOUR LAKE INFRASTRUCTURE NETWORK







## POSITIVE METALLURGICAL RESULTS



## TEST WORK SUPPORT PROJECT'S COMMERCIAL POTENTIAL...

- Initial and subsequent Heavy Liquid Separation (HLS) testwork on Seymour Lake spodumene returns excellent results, readily produces high grade lithium concentrate up to 7.73% Li<sub>2</sub>O.
- Preliminary mineralogy tests show spodumene particles are well liberated at relatively course size.
- High-grade lithium concentrate of up to 6.43% Li<sub>2</sub>O produced from **Dense Media Separation**, at 9.5mm feed size.
- High Li<sub>2</sub>O recovery of 91% achieved.
- Minimal grinding required to achieve high grades.
- High-grade lithium concentrates of up to 6.16% Li2O produced from a single stage Flotation test.
- High Li2O recovery of 76% achieved at a coarse grind size of 150 μm, with the test work again confirming that the spodumene particles are well-liberated at a very coarse particle size
- No Acid Leaching required to produce Lithium Concentrate

## POSITIVE METALLURGICAL RESULTS



## TEST WORK CONFIRMS HIGH QUALITY OF SEYMOUR LAKE SPODUMENE...

- Production of the lithium concentrate at such a high grade well over the industry standard of 6% Li<sub>2</sub>O, as required by most lithium end-users.
- These preliminary test work results are very encouraging and once again confirms the high quality of the Seymour Lake spodumene.
- Results to date bode well for future Lithium recovery.
- Initial results indicate that there appears to be minimal gangue minerals in the concentrate, with  $Fe_2O_3$  and  $Fe_2O_3$  are specified by the sequence of the s
- Further Yantai test work will determine final recovery rates, sizing and work is ongoing to develop a suitable processing flowsheet for commercial production of Lithium Concentrate.

# ...Quality Matters...



## SEYMOUR LAKE DEVELOPMENT STRATEGY



- Working with Yantai, Whitesand and MNDM.
- Increase initial maiden JORC compliant Mineral Resource estimate at North Aubry. (Open North, East,
  West and at Depth)
- Complete feasibility activities, baseline environmental studies and secure off-take and funding options.
- Continue resource expansion drilling programs over project.
- Expand JORC compliant Mineral Resource estimates in 2018 and 2019.
- Work with strategic partners to fast track mine development.
- Commence with mining and concentrate production on bouquet pits, create revenue stream.
- Scale up operations as resources are further defined and expanded.
- Continue to identify further drill targets along the 5km strike zone (only 5% area drilled tested), 40 untested pegmatites along strike zone and open to East.

## SEYMOUR INDICATIVE DEVELOPMENT MILESTONES

INDICATIVE MILESTONES  Targeted project timeline for development of the Seymour Lake Lithium project, subject to obtaining the relevant funding and regulatory approvals.	Q <sub>3</sub>	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018
Resource drilling program at North Aubry Prospect	1					
Bulk Sampling from North Aubry Prospect	1	,				
Secure 100% interest in Project						
Convert Unpatented Claims into Leases	,					
<ul> <li>Stakeholder Engagement and Development Meetings:</li> <li>First Nation Groups</li> <li>Ontario Government</li> <li>Federal Government</li> <li>Yantai</li> <li>Local Service Providers</li> </ul>						
Define expanded drilling program and exploration targets along pegmatite 5km strike zone						
Initial JORC Lithium Mineral Resource	1					
Commercial scale metallurgical testing	1	1				
Engage additional drilling team						
Exercise Yantai Term Sheet for BOT					2.4	

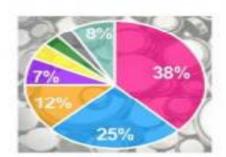
# SEYMOUR INDICATIVE DEVELOPMENT MILESTONES

INDICATIVE MILESTONES  Targeted project timeline for development of the Seymour Lake Lithium	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
project, subject to obtaining the relevant funding and regulatory approvals.	2017	2018	2018	2018	2018	2019	2019	2019	2019
Stakeholder Engagement									
Phase 3 Drilling program: South & Central Aubry & other Prospects									
Feasibility Study	1								
Environmental Study									
End user testing of Li2O concentrate	ľ								
Production of Lithium Carbonate									
Upgrade JORC Lithium Mineral Resource									
Secure Lithium off-take									
Secure project development funding									
Mining License Approval									
Commissioning of Plant									
Commercial Production									

# DEMAND FOR LITHIUM CARBONATE EQUIVALENT

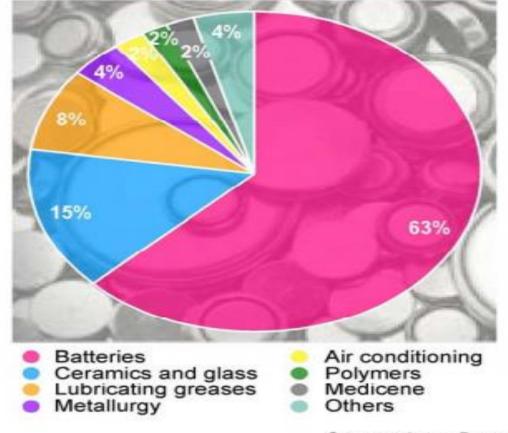


Lithium Demand by Application - 2014 (200,000t of LCE)



- Batteries
   Ceramics and glass
   Lubricating greases
- Air conditioning
  Polymers
  Medicene
- Metallurgy Others





Source: signumBox estimates



## **SUMMARY – SEYMOUR LAKE LITHIUM PROJECT**



#### AN EXCITING DEVELOPMENT PHASE TO PRODUCTION...

- Lithium demand has very strong market fundamentals and growth forecasts. Strong asset portfolio focused on the supply of materials to the rapidly growing lithium-ion battery market
- Maiden lithium resource meets all of Yantai term sheet requirements, ready to move forward!!!
- High quality spodumene at and near surface continuing down to depth at North Aubry with great metallurgical results and good recovery rates
- Drilling confirming good potential to extend the maiden lithium resource along Aubry 1,100m strike zone
- Large project footprint of 7,000 Ha, with majority still to be explored, great upside potential to discover further lithium resources
- Established key strategic relationships with Yantai to fund and build lithium processing facility, allowing rapid development to production
- Projects located in Tier One mining jurisdictions, with great access and infrastructure and markets, with strong support from First Nations and Ontario Government
- Strong board and management team

Strategy to identify and define high quality, near surface economic resources in Tier-1 jurisdictions to enhance shareholder value, focusing on commodities with a strong growth outlook...

## **CONTACT DETAILS**



#### For further information:

**Investors:** 

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#### **About Ardiden**

Ardiden Limited (ASX: ADV) is an emerging international diversified exploration and development company possessing a mature multi-element asset portfolio, with a near term development pipeline, focused quality projects located in the established mining jurisdiction of Ontario, Canada.

The 100%-owned Seymour Lake Lithium Project comprises 7,019 Ha of mining claims and has over 4,000m of historic drilling. Mineralisation is hosted in extensive outcropping spodumene-bearing pegmatite structures with widths up to 26.13m and grades of up to 6.0% Li<sub>2</sub>O. These highgrade pegmatite structures have been defined over a 5km strike length.

The 100%-owned Wisa Lake Lithium project is located 80km east of Fort Frances, in Ontario, Canada and only 8km north of the Minnesota/US border. The property is connected to Highway 11 (Trans-Canada), which is located 65km north via an all-weather road that crosses the centre of the project. The Wisa Lake Lithium Project consists of five claims (1,200 hectares) and covers the historical drilling location of the North Zone. Ardiden is aiming to commence a limited drill program to drill test and verify the historical lithium results.

The Pickle Lake Gold Properties (under option to acquire 100%) are located within the prolific gold-producing Meen-Dempster Greenstone Belt of the Canadian Shield, in close proximity to several of the Company's existing projects and to the regional mining centre of Thunder Bay. The Properties consists of four separate gold properties offering both advanced development opportunities and early stage exploration. Over 25,000m of historical diamond drilling completed across the Pickle Lake Gold Properties, confirming the potential for multiple extensive gold mineralised zones at both Dorothy-Dobie Lake and Kasagiminnis Lake, with gold mineralisation remaining open along strike and at depth.

The 100%-owned Root Lake Lithium Project is located in Ontario, Canada. The project comprises 1,013 Ha of mining claims and has over 10,000m of historic drilling. Mineralisation is hosted in extensive outcropping spodumene-bearing pegmatite structures with widths up to 19m and grades of up to 5.10% Li2O. In addition, tantalum grades of up to 380 ppm were intersected.

The 100%-owned Root Bay lithium project is strategically located approximately 5km to the east of the recently acquired Root Lake Lithium Project and consists of three claim areas, totalling 720 hectares. The project was staked by Ardiden as part of its regional exploration focus in and around the Root Bay spodumene-bearing pegmatite. Initial observations of the exposed pegmatite are characterized by coarse white albite, grey quartz and pale grey-green spodumene crystals up to 10cm long.

The 100%-owned Manitouwadge Flake Graphite Project covers an area 5,300 Ha and has a 20km strike length of EM anomalies with graphite prospectivity. Previous preliminary metallurgical test work indicated that up to 80% of the graphite at Manitouwadge is high value jumbo or large flake graphite. Test work also indicated that simple, gravity and flotation beneficiation can produce graphite purity levels of up to 96.8% for jumbo flake and 96.8% for jumb also be processed into high value expandable graphite, high quality graphene and graphene oxide.

## **DISCLAIMER**



The Bold Properties project (under option to acquire 100%) is located approximately 50km north-east of the town of Mine Centre in Ontario, Canada. The property is connected to Highway 11 (Trans-Canada), which is located 25km south via an all-weather road. The Bold Property Project consists of four claims (1,024 hectares) and covers a number of anomalous sulphide zones. In 1992, Hexagon Gold (Ontario) Ltd. completed a total of 17 drill holes in multiple locations on and around the Bold Property Project at various depths of up to 428m down-hole. The nine grab samples that were collected by Hexagon in 1992 returned encouraging grades of up to 0.33% cobalt, 5.54% copper and 0.73% nickel, confirming the significant exploration potential.

All projects located in an established mining province, with good access to infrastructure (road, rail, power, phone and port facilitates) and local contractors and suppliers.

#### **Competent Person Statement**

The information in this report that relates to exploration results on the Seymour Lake project is extracted from the reports entitled ASX Release "Thick Spodumene-bearing Pegmatites At South Aubry Highlight Potential To Expand Seymour Lake", dated 13 November 2017, ASX Release "Seymour Lake" dated 1 November 2017, ASX Release "Seymour Lake" dated 1 November 2017, ASX Release "Seymour Lake Lithium Project, Canada", dated 4 October 2017, ASX Release "Bulk Sample Metallurgical Testwork Commences In China With Highly Encouraging Initial Results", dated 2 October 2017, ASX Release "Seymour Lake: Flotation Testwork Continues To Produce High-grade Lithium Concentrate", dated 31 August 2017, ASX Release "Exceptional High-grade Lithium Hits Of Up To 5.7% Li2o At Seymour Lake, Canada" dated 18 August 2017, ASX Release "Seymour Lake: Dms Metallurgical Testwork Continues To Produce High-grade Lithium Concentrate" dated 23 June 2017, ASX Release "Seymour Lake: Preliminary Testwork Shows Potential To Produce High-grade Lithium Concentrate Grading Up To 7.73% Li<sub>2</sub>o" dated 9 February 2017 and is available to view on www.ardiden.com.au The reports were issued in accordance with the 2012 Edition of the JORC Australasian Code for Reporting of Exploration Resources and Ore Reserves. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in this report that relates to Data and Exploration Target at the North, Central and South Aubry on Seymour Lake Lithium project is based on, and fairly represents, information and supporting documentation prepared by Ms Karen Lloyd, who is a Fellow of the Australasian Institute of Mining & Metallurgy. Ms Lloyd is not a full-time employee of the Company Ms Lloyd is employed as a Consultant from Jorvik Resources Pty Ltd. Ms Lloyd has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Mineral Resources and Ore Reserves (the JORC Code)'. Ms Lloyd consents to the inclusion in this report the exploration results and the supporting information in the form and context as it appears.

#### **Forward Looking Statements**

This announcement may contain some references to forecasts, estimates, assumptions and other forward-looking statements. Although the company believes that its expectations, estimates and forecast outcomes are based on reasonable assumptions, it can give no assurance that they will be achieved. They may be affected by a variety of variables and changes in underlying assumptions that are subject to risk factors associated with the nature of the business, which could cause actual results to differ materially from those expressed herein. All references to dollars (\$) and cents in this presentation are to Australian currency, unless otherwise stated. Investors should make and rely upon their own enquires and assessments before deciding to acquire or deal in the Company's securities.