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**ARDIDEN**

## Multiple Spodumene-Bearing Pegmatites Intersected At Flagship Seymour Lake Lithium Project

*Latest drilling hits multiple thick pegmatite sills with large spodumene crystals at Central and South Aubry prospects, continuing to expand the overall Lithium potential of Seymour Lake.*

### HIGHLIGHTS:

- The first seven diamond drill holes of the campaign have intersected multiple spodumene-bearing pegmatites at various depths at the South and Central Aubry prospects
- Thick mineralised zones containing large spodumene crystals were intersected with a combined down-hole width of up to 32m (SA-18-07).
- Drilling reaffirms continuity and the presence of multiple stacked pegmatite sills, with mineralisation remaining open in all directions
- Targeted ground penetration and truthing methods assisting Ardiden to identify further structures surrounding known Aubry pegmatite sills
- The Aubry prospects is just three of approximately 40 pegmatite exposures that were identified along the 5km strike zone during that exploration program, with several of these exposures hosting visible spodumene
- Drilling continues to provide a greater level of confidence in the continuity of the mineralisation, while also steadily increasing the overall scale and potential of the Seymour Lake project.

Diversified minerals explorer and developer Ardiden Limited (ASX: ADV or “the Company”) is pleased to advise that the ongoing resource expansion diamond drilling program at the Central and South Aubry prospects continues to demonstrate impressive resource expansion potential, with the first seven drill holes all intersecting spodumene-bearing mineralisation. Central and South Aubry are part of the Company’s 100%-owned **Seymour Lake Lithium Project** in Ontario, Canada.

These latest drilling results are demonstrating significant potential for expansion, with the thickness of the pegmatite sills, whilst also displaying down-plunge continuity of the lithium mineralisation extending north-east from the Central and South Aubry pegmatite exposures (Refer Figures 7 and 8).

The continued drilling success at the Central and South Aubry prospects clearly demonstrates the potential to expand the Mineral Resource at Seymour Lake, providing strong support for the Company’s fast-track development strategy.

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Assays for the first seven holes of the current drill campaign are in progress, and planning is already underway to undertake additional targeted exploration drilling across all the Aubry prospects to further define and realise the full potential of Seymour Lake

## CENTRAL AND SOUTH AUBRY PROSPECTS DRILLING

The first seven diamond drill-holes completed from the current resource expansion diamond drill program at the Central and South Aubry prospects (holes SA-18-01, SA-18-02, SA-18-05, SA-18-07 to SA-18-10) have successfully intersected multiple pegmatites. Ardiden confirms these drill holes have now been reviewed and logged by the Company's geological team and drill core samples are currently being analysed at Activation Laboratories in Thunder Bay.

Visual logging of the drill cores has confirmed the presence of multiple pegmatite layers at various depths, including impressive intersections: (refer to Tables 1 and 2 for a full list):

- Hole SA-18-07, intersected **32.38m** combined metres of spodumene-bearing sills from 67.27m down-hole over a total down-hole thickness of approximately 141m; and
- Hole SA-18-01, intersected **21.76m** combined metres of spodumene-bearing sills from 76.20m down-hole over a total down-hole thickness of approximately 150m.



**Figure 1.** Drill core obtained from drill hole SA-18-07 (from approx. 55m to 109m) showing the intersection of high-quality spodumene-bearing pegmatite (the lighter coloured material in the photo is the Pegmatite, whilst the darker material is Mafic Volcanic).

The drilling has reinforced the presence of multiple spodumene bearing pegmatite sills of various thicknesses, with the visual intersections confirming the potential to dramatically expand the mineralised zones at Central and South Aubry prospects to the north-east.

The identification within the drill core of very large white spodumene crystals is another good indicator of the high quality spodumene present at Central and South Aubry

The true potential of these two highly prospective locations has not been fully drill tested and the mineralisation remains open in all directions and at depth. The Company is targeting known lithium mineralisation hosted in multiple sills and will continue to develop its geological interpretation of the Aubry prospects as further assay results and additional ground truthing data is received.



**Figure 2.** Three images of the drill core obtained from drill hole SA-18-07, Note large pale green to whitish coarse tabular spodumene crystals with quartz and feldspar.



Figure 3. Drill core images obtained from drill hole SA-18-07 show very large high quality spodumene crystals.

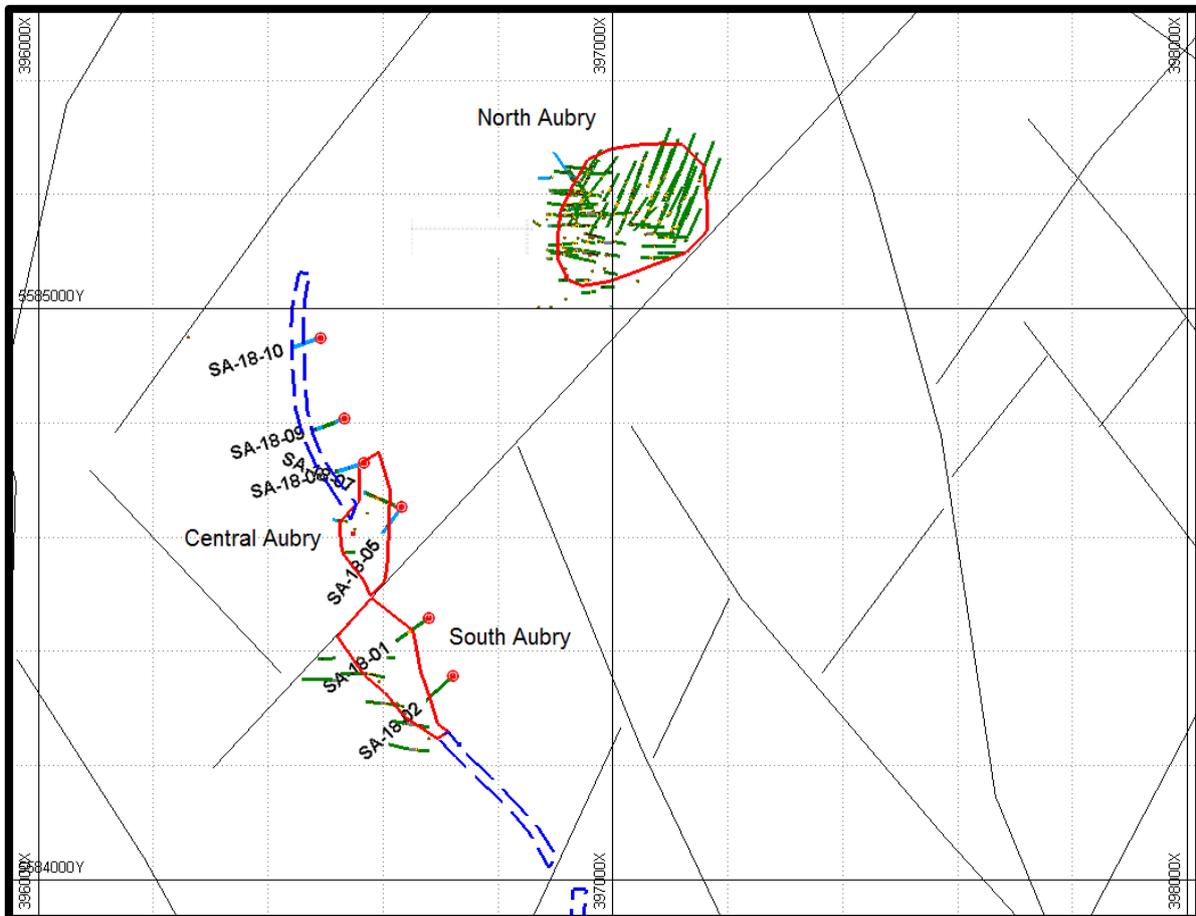


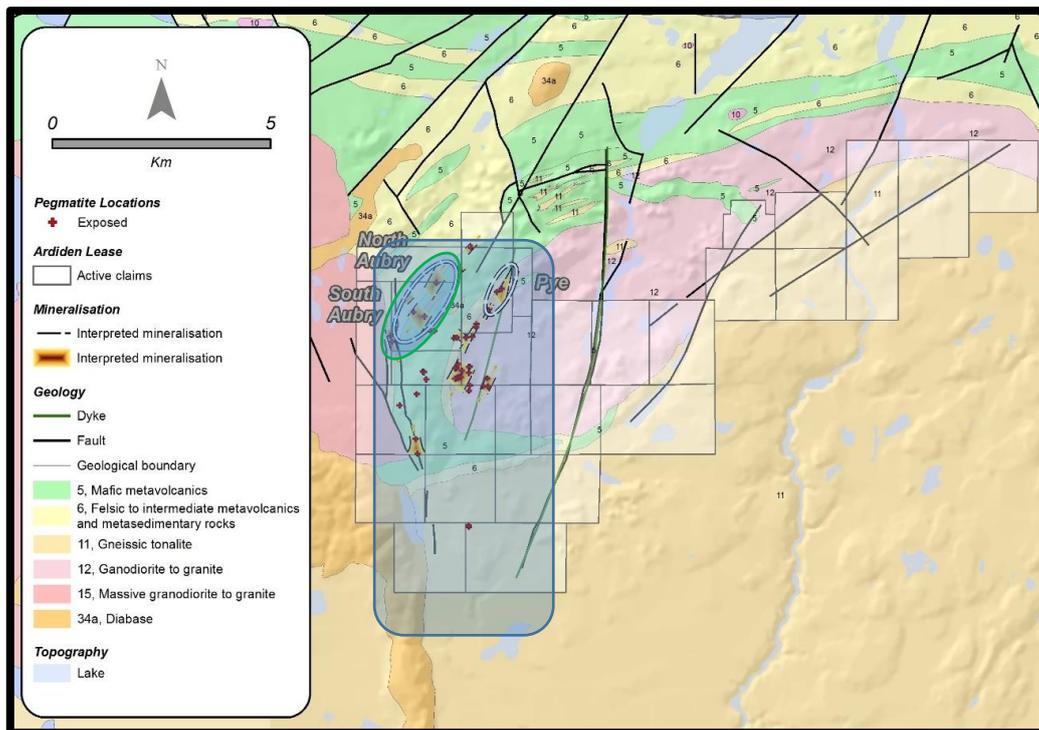
Figure 4. Plan view showing the current drill hole locations (Red) at the Central and South Aubry prospects.

The latest results further highlight the strong potential to expand the Seymour Lake Project, with numerous pegmatite exposures that have not yet been fully explored or tested within the 5km strike zone. The upcoming exploration programs will be testing the broader potential of the project.



**Figure 5.** Image of the drill rig at SA-18-10 just north of the Central Aubry prospect.

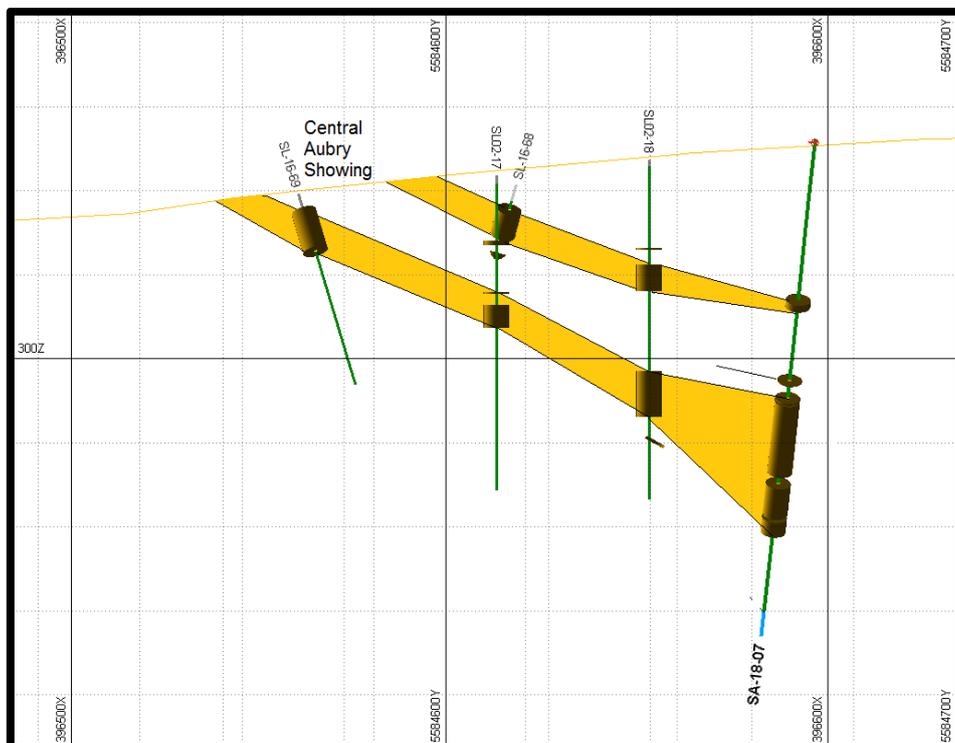
The Aubry prospects is just three of approximately 40 pegmatite exposures that were identified along the 5km strike zone during that exploration program, with several of these exposures hosting visible spodumene (refer to Figure 6).



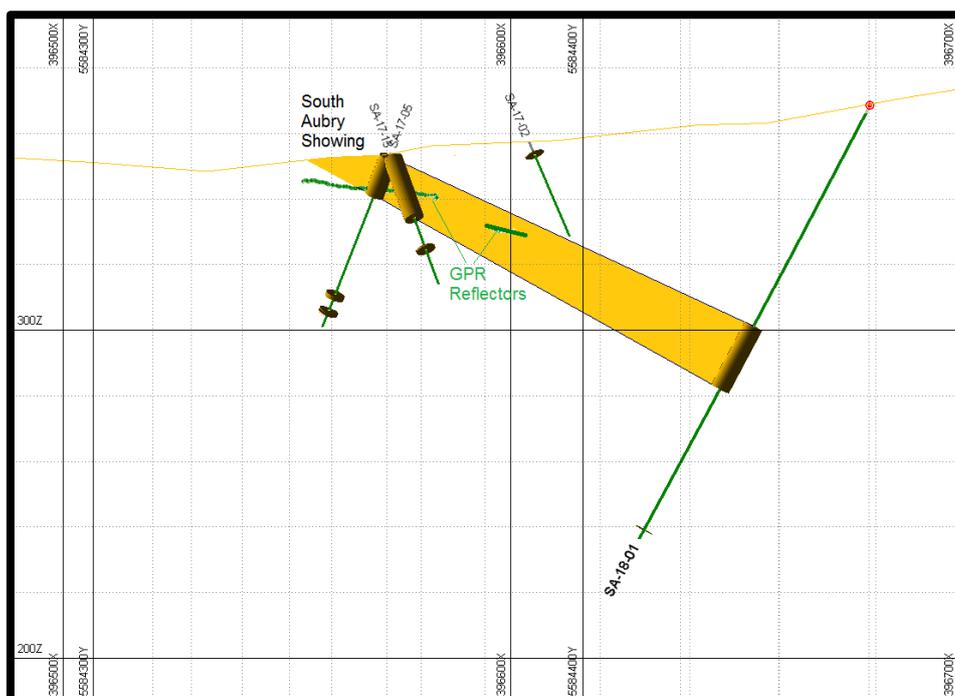
**Figure 6.** Overview map of the Seymour Lake project claims, identifying the multiple pegmatite exposures along the 5km strike zone (Aubry prospects highlighted in green).

## EXPLORATION UPSIDE

The identification of thick stacked pegmatites sills at Central and South Aubry in drill holes SA-18-01 and SA-18-07 which showed a combined down-hole width of up to 32m, has confirmed the significant potential for resource expansion, as continuity of spodumene mineralisation extending northeast from the known pegmatite exposures has been uncovered. Pegmatites either at, or close to surface represents a strategic advantage for the Seymour Lake project, and potentially allows easier access to high-quality mineralisation in a future mining scenario, whilst proximity of the pegmatites to surface is likely to reduce the required pre-strip.



**Figure 7.** Cross Section at Central Aubry showing two pegmatite sills and drill holes SA-16-69, SA02-17, SA-16-68, SA02-18 and SA-18-07



**Figure 8.** Cross Section at South Aubry showing a thick pegmatite sill and drill holes, SA-17-02, SA-17-05 and SA-17-15, SA-18-01.

Ardiden confirms further drilling and exploration is required in order to obtain a true understanding of the size and scale and overall structure of the pegmatite swarms of all the pegmatite sills contained at the North, Central and South Aubry prospects.

## CONTROLLING STRUCTURES AND REFLECTORS

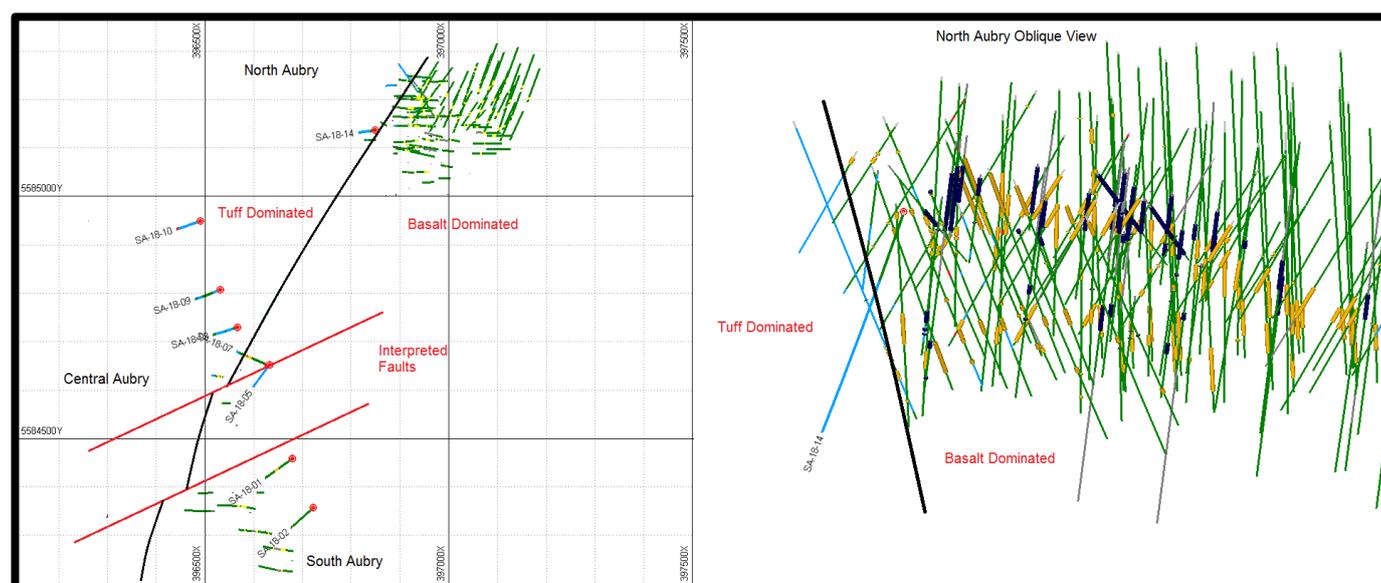
As the exploration and drilling programs progresses at Seymour Lake, the Company will place an emphasis on improving the geological understanding around the complexities and controlling structures, to allow for a more targeted and controlled approach to identifying further prospective pegmatite-bearing areas.

This knowledge base is being further enhanced with additional ground penetration and truthing methods. Early results indicate some correlation between the location and extensions of the newly identified sub-structures (reflectors) and some of the multiple Aubry pegmatite sills. These structural reflectors are showing significant alignment with the direction and dip of the known pegmatites and have been partially validated by current and historical drilling.

The validation of the pegmatite extensions and the newly identified structural reflectors can be seen in drill holes SA-18-08 to SA-18-10 (refer Table 2), where the holes have intercepted a number of thin pegmatite sills in the Tuff dominated zones. Although the pegmatites sills intercepted are not substantial, these drill results are still important having confirmed the boundaries and extensions of multiple stacked pegmatites sills and helped to delineate the controlling structures.

The Company notes early results could also potentially indicate some correlation associated with the Basalt dominated zones as being more conducive to hosting larger and more developed pegmatite structures. Whereas the Tuff dominated zones appears to host thinner and less developed pegmatites (Refer to Figure 9). Should this correlation be found to have merit, this knowledge could significantly assist Ardiden in future exploration activities when delineating what could be a prospective area on the project.

The upcoming exploration and drilling program will aim to obtain additional data to test if the current correlations associated with the known pegmatite structures has any merit and whether these methods may be able to assist Ardiden with future identification and exploration activities at Seymour Lake.



**Figure 9.** Overview image of the North, Central and South Aubry prospect areas, showing drill hole locations, interpreted faults and Tuff Dominated and Basalt Dominated zones.

Ardiden notes that although the pegmatites at Seymour Lake can be somewhat difficult to model and predict due to the variable fluid pathways, confirmation of the interpreted extensions of the spodumene-bearing pegmatites and the verification of multiple pegmatite sills in the latest drilling provides the Company with a greater level of understanding and confidence in the project, while also steadily expanding the overall scale of the project and its future resource potential.

Ardiden confirms that the drill logs contained in this announcement refer to the identification and distribution of visible spodumene crystals of various sizes and colours contained within drill core samples. Ardiden notes that the estimated distribution of visible spodumene crystals in the drill core is not an accurate reflection of potential lithium grade and this will be determined with additional laboratory analysis.

The Company also notes that it has reported various widths of the highly evolved spodumene-bearing pegmatites. The Central and South Aubry pegmatites are classified as highly evolved, complex type, spodumene-subtype, lithium-caesium-tantalum pegmatites. These pegmatites generally form under high-pressure–low-temperature conditions, display complex internal zoning, have relatively low Nb/Ta ratios in the ore-forming assemblages, and contain significantly elevated tantalum values.

Ardiden confirms that the Central and South Aubry pegmatites contains multiple layers of highly evolved complex pegmatites and, as such, a number of the diamond drill-holes have been reported with a down-hole aggregate of visible spodumene- bearing and non-spodumene-bearing pegmatites.

The highly evolved non-spodumene-bearing pegmatites have been clearly identified in the drill log, however the lack of spodumene crystals being externally visible in the drill core is not an accurate reflection of the potential spodumene crystal content within the drill core or the potential lithium grade of the sample, which will be determined with additional laboratory analysis.

Ardiden looks forward to providing further updates as they come to hand.

**Table 1.** Results for drill holes SA-18-01 and SA-18-07 at Seymour Lake Lithium Project.

Hole ID	East	North	End of Hole (m)	Azimuth	Dip	From (m)	To (m)	Interval (m)	Description
SA-18-01	396680	5854459	150	226	-60	0.00	3.00	3.00	Overburden
SA-18-01	396680	5854459	150	226	-60	3.00	76.20	73.20	Mafic volcanic: Massive pillowed basalt. Gen mass with very localized weak fol'n dom @ 35° TCA. Random pillow selvages of amph/cal/qtz and epid. Patchy Fract introduced epid alt'n as well.
SA-18-01	396680	5854459	150	226	-60	<b>76.20</b>	<b>97.90</b>	<b>21.70</b>	<b>Spodumene Nb/Ta Pegmatite:</b> Potassic phase with common megacrysts of Kspar. Majority of Kspar perthitic has



									converted to alb. 5-12% coarse books of dk grn musc. Ave of approx 0.5% - 1% Spodumene to which the vast majority has been altered and oxidized soft, rusty brn. Rock is wkly oxidized along xtal margins and micro fractures.
SA-18-01	396680	5854459	150	226	-60	97.90	146.70	48.80	Mafic volcanic Massive pillowed basalt. Gen mass with very localized weak fol'n dom @ 35° TCA. Random pillow selvages of amph/cal/qtz and epid. Patchy Fract introduced epid alt'n as well. 4-6% calc/epid/qtz veining -planar and irregular and often mult-cm. Material becomes phaneritic homogenous and wkly veined (no pillows.
SA-18-01	396680	5854459	150	226	-60	<b>146.70</b>	<b>146.76</b>	<b>0.06</b>	<b>Spodumene Nb/Ta Pegmatite:</b> Massive Pegmatite vein/dykelet. Sodic phase alb/qtz with a few mgr xtals of wkly alt'd/oxidized Spod and Nb/Ta oxides up to 4mm. Patchy wk oxid'n
SA-18-01	396680	5854459	150	226	-60	146.76	150.00	3.24	Mafic volcanic. As above dykelet
							<b>TOTAL</b>	<b>21.76</b>	
SA-18-07	396629	5584560	141	285	-60	0.00	1.00	1.00	Overburden



SA-18-07	396629	5584560	141	285	-60	1.00	45.30	44.30	Mafic volcanic; Predominantly pillowed basalt with sections of intercalated bedded (compositionally banded) mafic - intermed tuff.
SA-18-07	396629	5584560	141	285	-60	45.30	47.15	1.85	Felsic dyke; Fsp porphyry, vgr siliceous grndms with mm wh subhedral fsp pheno's. Sharp contacts with host fabric. Competent, homogenous and unaltered.
SA-18-07	396629	5584560	141	285	-60	47.15	67.27	20.12	Mafic volcanic as above
SA-18-07	396629	5584560	141	285	-60	<b>67.27</b>	<b>67.45</b>	<b>0.18</b>	<b>Pegmatite sill and dykelet -Kspar/qtz fract introduced hem stained/oxidized, becoming near pervasive. Traces of vgr blk Nb/ta oxides and bluish Flour apatite.</b>
SA-18-07	396629	5584560	141	285	-60	67.45	72.10	4.65	Mafic volcanic as above
SA-18-07	396629	5584560	141	285	-60	<b>72.10</b>	<b>72.50</b>	<b>0.40</b>	<b>Nb/Ta Pegmatite sill and dykelet - Kspar/qtz fract introduced hem stained/oxidized, becoming near pervasive. Traces of vgr blk Nb/ta oxides and bluish Flour apatite.</b>
SA-18-07	396629	5584560	141	285	-60	72.5	73.0	0.50	Mafic volcanic as above
SA-18-07	396629	5584560	141	285	-60	<b>73</b>	<b>92.4</b>	<b>19.40</b>	<b>Spodumene Nb/Ta Pegmatite</b> Massive Pegmatite; Dominant fsp is



									Kspar (with one 15cm section of fgr alb/qtz). Fract introduced hem oxid'n becomes patchy. 2-10% lt grn Spodumene -a small percentage of the Spod has been oxid'd and altered. Traces of vfgr blk Nb/ta oxides
SA-18-07	396629	5584560	141	285	-60	92.4	95.5	3.10	Mafic volcanic; mgr-near cgr amph with fgr-mgr wh fsp and much lesser qtz. Metamorphosed and mod foliated @ ~70° TCA.
SA-18-07	396629	5584560	141	285	-60	<b>95.50</b>	<b>103.90</b>	<b>8.40</b>	<b>Spodumene Nb/Ta Pegmatite:</b> Massive Pegmatite; Potassic phase. Kspar is mostly cloudy and not quite megacrystic. Gry interstitial or quasi graphic qtz. Minor grn Musc. Rel consistent cgr lt grn Spod from 8-25% throughout. Possible mm beryl. Traces of vfgr blk Nb/Ta oxides.
SA-18-07	396629	5584560	141	285	-60	103.90	104.80	0.90	Mafic volcanic as above
SA-18-07	396629	5584560	141	285	-60	<b>104.80</b>	<b>108.80</b>	<b>4.00</b>	<b>Spodumene Nb/Ta Pegmatite as above</b>
SA-18-07	396629	5584560	141	285	-60	108.80	131.00	22.20	Mafic volcanic; mgr-near cgr amph with fgr-mgr wh fsp and much lesser qtz
SA-18-07	396629	5584560	141	285	-60	131.00	141.00	10.00	Intermediate bedded tuff; Compositional



									banding/bedding feldspathic beds vs hble rich bedding. As well as mm fsp (relict ash clasts).
							<b>TOTAL</b>	<b>32.38</b>	

ENDS

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**About Ardiden Ltd**

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 32.2m and grades of up to 6.01% Li<sub>2</sub>O. These high-grade pegmatite structures have been defined over a 5km strike length.

The 100%-owned Wisla 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 Wisla 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 Uchi Geological Sub-province 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% Li<sub>2</sub>O. 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 large flake. With the proven caustic bake process, ultra-high purity (>99.95%) graphite can be produced. The graphite can also be processed into high value expandable graphite, high quality graphene and graphene oxide.

The 100%-owned Bold Properties project 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 cobalt, copper and nickel grades, confirming the significant exploration potential.

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

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

The information in this report that relates to exploration results for the Seymour Lake Lithium project and is based on, and fairly represents, information and supporting geological information and documentation in this report has been reviewed by Mr Robert Chataway who is a member of the Association of Professional Geologists of Ontario. Mr Chataway is not a full-time employee of the Company. Mr Chataway is employed as a Consultant Geologist. Mr Chataway has more than five years relevant exploration experience, and qualifies as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (the JORC Code). Mr Chataway consents to the inclusion of the information in this report in the form and context in which it appears.

#### **Forward Looking Statement**

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.

**APPENDIX – I**
**Table 2. Results for drill holes SA-18-02, SA-18-05, SA-18-08 to SA-18-10 at Seymour Lake Lithium Project.**

Hole ID	East	North	End of Hole (m)	Azimuth	Dip	From (m)	To (m)	Interval (m)	Description
SA-18-02	396722	5584357	132	223	-60	0.00	5.80	5.80	Overburden
SA-18-02	396722	5584357	132	223	-60	5.80	85.85	80.05	Mafic volcanic. Massive pillowed basalt. Gen mass with very localized weak fol'n dom @ 35° TCA. Random pillow selvages of amph/cal/qtz and epid. Patchy Fract introduced epid alt'n as well. 1-3% Qtz/carb veining
SA-18-02	396722	5584357	132	223	-60	<b>85.85</b>	<b>86.18</b>	<b>0.33</b>	<b>Pegmatite dyke/sill.</b> Sodic phase, fgr alb intimate with qtz - cloudy or diffuse xtal margins. Trace lt grn fgr Musc but peg shows abundant quasi laminated biotite. Intercalated with metasomatized host likely.
SA-18-02	396722	5584357	132	223	-60	86.18	114.00	27.82	Pillowed basalt as above, except rock is mod foliated and banded @ 68° TCA. After 94.8m material becomes massive. Lower contact in broken and slightly ground core.
SL-18-02	396722	5584357	132	223	-60	<b>114.00</b>	<b>114.48</b>	<b>0.48</b>	<b>Massive Pegmatite;</b> Dominantly mgr-cgr, wh-pk Kspar with interstitial gry qtz. Contains interstitial vfgr anhed blk oxides,



									interstitial hble and traces of garnet and tourmalin
SL-18-02	396722	5584357	132	223	-60	114.48	121.38	6.90	Mafic volcanic. Massive pillowed basalt. Gen mass with very localized weak fol'n dom @ 35° TCA. Random pillow selvages of amph/cal/qtz and epid. Patchy Fract introduced epid alt'n as well. 1-3% Qtz/carb veining. Gen competent and wkly fract'd.
SL-18-02	396722	5584357	132	223	-60	<b>121.38</b>	<b>122.11</b>	<b>0.73</b>	<b>Nb/Ta Massive Pegmatite;</b> Sodic phase dominantly fgr sugary alb - locally as well developed clevelanditegraphic with gry qtz. Rock contains numerous specks of vfgr blk Nb/Ta oxides. Trace or very minor fgr lt silver grn Musc.
SL-18-02	396722	5584357	132	223	-60	122.11	132.00	9.99	Pillowed basalt as above, except rock is massive. 2-3% irreg epid/carb/qtx veining. Trace FC Py.
							<b>TOTAL</b>	<b>1.54</b>	
SL-18-05	396636	5584652	120	212	-60	0.00	1.40	1.40	Overburden
SL-18-05	396636	5584652	120	212	-60	1.40	48.70	47.30	Mafic to intermediate bedded ash lapilli tuff. Amphibolite facies metamorphism. Fgr to cgr hble/amph. Bedded dominantly @ 20°



									with ash to lapilli relict clasts rextal'd to fsp/qtz/amph. 2-3% carb/qtz vein'g mostly conformable to bed'g -fol'n.
SL-18-05	396636	5584652	120	212	-60	48.70	61.85	13.15	Light to medium gray, faintly banded crysatl tuff. Diffuse feldspar spots (likely relic clasts.) Faint foliation @ 40 degrees. Vfg disseminated garnets. Rock is qtz rich and felsic
SA-18-05	396636	5584652	120	212	-60	61.85	83.60	21.75	Mafic to intermediate bedded ash lapilli tuff. Amphibolite facies metamorphism. Fgr to cgr hble/amph. Bedded dominantly @ 20° with ash to lapilli relict clasts rextal'd to fsp/qtz/amph. 2-3% carb/qtz vein'g mostly conformable to bed'g -fol'n. Rock is commonly strongly fractured.
SA-18-05	396636	5584652	120	212	-60	<b>83.60</b>	<b>84.30</b>	<b>0.70</b>	<b>Nb/Ta Massive Pegmatite;</b> Sodic phase with fgr sugary alb or more commonly radiating blades of cleavandite. With interstitial qtz. Rock is wkly oxidized with Fract controlled Hem becoming near near pervasive.



									Traces of vfgr blk Nb/Ta oxides
SA-18-05	396636	5584652	120	212	-60	84.30	120.00	35.70	Mafic tuff as above in 61.85 to 83.6m.
							<b>TOTAL</b>	<b>0.70</b>	
SA-18-08	396629	5584560	141	248	-69	0.00	6.00	6.00	overburden
SA-18-08	396629	5584560	141	248	-69	<b>6.00</b>	<b>7.70</b>	<b>1.70</b>	<b>Spodumene Massive Pegmatite;</b> Dominant Fsp is creamy wh Kspar and coarse gry qtz. Last 20cm is fgr alb/qtz specked with vfgr blk Nb/Ta oxides that are incipiently oxidizing yell. Minor fgr-mgr grn musc. Sporadic lt grn, mgr Spodumene up to 1-2% which displays minor oxid'n/alt'n about xtal margins. Trace pk mm garnet?
SA-18-08	396629	5584560	141	248	-69	7.70	27.00	19.30	Mafic volcanic; Cgr amph with fgr fsp and qtz becoming mgr then fgr downhole.
SA-18-08	396629	5584560	141	248	-69	27.00	72.50	45.50	Intermediate tuff; Vfgr -mostly aphanitic with mm strained amph and fsp relict 'clasts', bed'g can be very faint or well developed and clearly defined
SA-18-08	396629	5584560	141	248	-69	<b>72.50</b>	<b>73.10</b>	<b>0.60</b>	<b>Massive Pegmatite;</b> Sodic zone. Fgr sugary alb (locally as cleavlandite) with 'blebby' gry qtz and



									2-3% mgr-cgr silvery grn Musc.
SA-18-08	396629	5584560	141	248	-69	73.10	128.80	55.70	Intermediate tuff as above
SA-18-08	396629	5584560	141	248	-69	128.80	136.70	7.90	Mafic volcanic; Fgr basalt. Mostly massive with local faint -weak foliation @ 60° TCA. Competent, weakly fractured and unaltered.
SA-18-08	396629	5584560	141	248	-69	<b>136.70</b>	<b>137.17</b>	<b>0.47</b>	<b>Massive Pegmatite;</b> Sodic zone. Fgr sugary alb (locally as cleavandite) with 'blebby' gry qtz and 2-3% mgr-cgr silvery grn Musc.
SA-18-08	396629	5584560	141	248	-69	137.17	141.00	3.83	Mafic volcanic; As above
							<b>TOTAL</b>	<b>2.77</b>	
SA-18-09	396532	5584808	150	245	-67	0.00	5.00	5.00	Overburden
SA-18-09	396532	5584808	150	245	-67	5.00	51.00	46.00	Intermediate volcanic; Bedded tuff. Flecked throughout with fsp relict. Variable composition with siliceous felsic bed'g vs mafic bedding. Local cm beds of hble/garnet.
SA-18-09	396532	5584808	150	245	-67	51.00	113.70	62.70	Mafic volcanic; Likely basalt flow. Gen mass and homog -amph (hble) rich, with local wk fol'n @ 40-60deg TCA.
SA-18-09	396532	5584808	150	245	-67	113.7	136.00	22.30	Mafic volcanic; Mafic tuff. Str fol'n/bed'g but



									distinct compositional banding (bed'g) is localized. Hble rich with common mm fsp relict 'clasts'
SA-18-09	396532	5584808	150	245	-67	136.00	139.20	3.20	Intermediate to felsic volcanic; Massive to wkly foliated @ 60 deg TCA. Fgr phaneritic, qtz rich with fine wh fsp and fgr amph.
SA-18-09	396532	5584808	150	245	-67	<b>139.20</b>	<b>139.40</b>	<b>0.20</b>	<b>Pegmatite dykelet/sill.</b> Dominantly cgr wh-pk Kspar with minor gry qtz and <1% fgr musc. Interstitial very fgr blk Nb/Ta oxides
SA-18-09	396532	5584808	150	245	-67	139.40	149.80	10.40	Intermediate to felsic volcanic; Massive to wkly foliated @ 60 deg TCA. Fgr phaneritic, qtz rich with fine wh fsp and fgr amph. Metamorphosed to amph facies.
SA-18-09	396532	5584808	150	245	-67	<b>149.80</b>	<b>149.87</b>	<b>0.07</b>	<b>Pegmatite dykelet</b> -pk/wh Kspar intimate with qtz, traces of very fgr blk Nb/Ta oxides
SA-18-09	396532	5584808	150	245	-67	149.87	150.00	0.13	Intermediate to felsic volcanic; Massive to wkly foliated @ 60 deg TCA. Fgr phaneritic, qtz rich with fine wh fsp and fgr amph. Metamorphosed to amph facies.
							<b>TOTAL</b>	<b>0.27</b>	
SA-18-10	396491	5584949	150	246	-70	0.00	2.40	2.40	Overburden



SA-18-10	396491	5584949	150	246	-70	2.40	20.67	18.27	Mafic volcanic; Likely a tuff? Str pervasive fol'n @ 35-50 deg TCA occasionally showing compositional banding (bed'g). Amph/wh fsp and minor vfgr qtz.
SA-18-10	396491	5584949	150	246	-70	20.67	21.10	0.43	Dominantly diffuse -cloudy wh alb intimate with qtz locally becoming cleavlandite.
SA-18-10	396491	5584949	150	246	-70	21.10	22.50	1.40	Mafic to intermediate ash (+lapilli) tuff. Metamorphosed to amph facies. Bedded and foliated @ 40 deg TCA. Amph/wh fsp and minor vfgr qtz, local garnet and local fine lenses or clusters of musc.
SA-18-10	396491	5584949	150	246	-70	<b>22.50</b>	<b>22.65</b>	<b>0.15</b>	<b>Pegmatite dykelet</b> from 22.5 to 22.65; qtz/alb + 8% fgr- mgr silver and grn Musc.
SA-18-10	396491	5584949	150	246	-70	22.65	140.05	117.40	Mafic to intermediate ash as above
SA-18-10	396491	5584949	150	246	-70	140.05	150.00	9.95	Massive diabase; Fgr aphanitic, homogenous and magnetic. Mostly shattered to coarse angular rubble
							<b>TOTAL</b>	<b>0.15</b>	

## Table 1: Seymour Lake Lithium Project (Claim Title 1245661)

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Diamond Drill Core was cut in half using a core saw along the core axis.</li> <li>Bagging of the half core samples was supervised by a geologist to ensure there are no numbering mix-ups.</li> <li>One tag from a triple tag book was inserted in the core tray in the position of the sample interval.</li> <li>Standard sample intervals averaged 1 m.</li> <li>Sampling continued through intervening barren rock (if less than 10m width) where multiple Spodumene Pegmatite zones were intersected</li> <li>The sample preparation and assaying techniques are industry standard and appropriate for this type of mineralisation.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>Diamond wireline core drilling.</li> <li>The drill core size is CHD 76, core diameter is 43.5 millimetres</li> <li>Drill holes were orientated using the Reflex ACT II RD core orientation tool</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>The sample interval of core was measured and recorded along with a description and incorporated in the completed drill logs.</li> <li>Core within the mineralised zone tended to be uniform and competent so loss was minimal and samples represent the true nature of the mineralisation</li> <li>No relationship between sample recovery and grade is evident.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> </ul>	<ul style="list-style-type: none"> <li>Samples represent half the core width, and are logged in detail to support appropriate Mineral Resource estimation at a later stage of exploration.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>• The total length and percentage of the relevant intersections logged.</li> </ul>	
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>• If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>• For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>• Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>• Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>• Core is split in half using a core saw with the remaining half retained in the core tray.</li> <li>• Mineralisation is massive and relatively uniform so assay samples closely represent the in-situ material.</li> <li>• Samples were taken on an average of 1 metre intervals and were determined to be appropriate for the mineralised material being sampled</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>• For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>• Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>• All samples will be analysed by Actlabs in Thunder Bay, Ontario Canada a SCC (Standards Council of Canada) accredited laboratory.</li> <li>• The assay technique will be FUS-Na2O2</li> <li>• Quality control procedures included the insertion of certified standards and blanks into the sample stream.</li> <li>• Results of the Heavy Liquid Separation tests are outlined in Table 3.</li> </ul>
verification of sampling and assaying	<ul style="list-style-type: none"> <li>• The verification of significant intersections by either independent or alternative company personnel.</li> <li>• The use of twinned holes.</li> <li>• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>• Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>• Drill logs and sample information is documented and stored digitally in field laptop units and backed up on the Ardiden server.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>• Specification of the grid system used.</li> <li>• Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>• Drill holes were located with handheld WAAS enabled handheld GPS units set for recording UTM NAD83 Zone 16N projection coordinates.</li> <li>• Drill holes were orientated using the Reflex ACT II RD core orientation tool</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Core samples of the mineralised zone were taken at approximately 1 metre intervals and deemed appropriate to represent the in-situ nature of the mineralization.</li> <li>• Further drilling and sampling will be required to adequately establish the geologic and grade continuity for any Mineral Resource and Ore Reserve estimation procedure.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drill hole locations were designed to intercept the mineralised zone as close to true width as possible to avoid sampling bias.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples were secured and delivered to the assay lab under chain of custody controls by the Caracle Creek Consulting group</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No audits or reviews of sampling techniques have been conducted</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>• <i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></li> <li>• <i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All claims in the Seymour Lake Lithium project are in good standing and these include claims 1245661 1245648 1245662 1245664 1245646, 4270593, 4270594, 4270595, 4270596, 4270597, 4270598, 4279875, 4279876, 4279877, 4279878, 4279879, 4279880, 4279881, 4279882, 4279883, 4279884, 4279885, 4279886, 4279887, 4279888, 4279889, 4279890, 4279891, 4279869, 4279870, 4279871, 4279872, 4279873 and 4279874</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>• <i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Other parties have not appraised the exploration carried out to date</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Seymour Lake area pegmatites have been classified as belonging to the Complex-type, Spodumene-subtype. Mineralization is dominated by spodumene (Li), with lesser tantalite(Ta) hosted in a series of variably</li> </ul>

Criteria	JORC Code explanation	Commentary
		steeply dipping pegmatite dykes and and sills.
Drill hole Information	<ul style="list-style-type: none"> <li>• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>○ easting and northing of the drill hole collar</li> <li>○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>○ dip and azimuth of the hole</li> <li>○ down hole length and interception depth</li> <li>○ hole length.</li> </ul> </li> <li>• If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>• See Tables 1 and 2 and Figure 4 for the location of the drill collars and other dill hole information.</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>• Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>• With the homogeneity of the mineralised material, sample intervals for the most part were kept at one metre intervals</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>• If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>• Mineralised zones were determined to be shallow dipping and drill holes were drilled at -60 degrees so that drilling orientation bias was minimised</li> </ul>
diagrams	<ul style="list-style-type: none"> <li>• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>• See Figure 4 for the location of the drill hole collars</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No comprehensive report has been completed to date to include the latest Ardiden exploration results.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All meaningful and material data is reported</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Refer to text within the report.</li> </ul>