

15 June 2021

## WESTERN HUB GEOPHYSICAL SURVEY REVEALS ADDITIONAL TIER-1 SCALE GOLD TARGETS

### Highlights

- **Airborne VLF-EM detail Geophysical Survey** and structural interpretation has identified additional Tier-1 Scale Gold Targets along a 50km strike at the **Western Hub**, part of the Company's **Pickle Lake Gold Project**.
- **Bear Head Fault Zone** and geological setting showing strong similarities to the Dixie Gold Project, located to the west at Red Lake. Both fault zones are within the same geological greenstone belt and gold mineralised system.
- Planning well advanced to initiate Ardiden's maiden drill programme at the **Esker Gold Prospect**, located in the **Western Hub** portion of the Pickle Lake Gold Project.
- Initial drill target area will expand upon historical drilling at Esker which revealed significant gold intersections of **5.35m @ 3.1g/t Au** (ME88006 including **24.0g/t Au** over 0.3m), and **12.03m @ 3.2g/t Au** (ME88008 including **13.5g/t Au** over 0.9m) over a 3km long dilational structure.
- Warm weather conditions truncated the Winter drill programme at the **Kasagiminnis Gold Deposit (Kas)**, however a high-grade one metre intercept of **5.25g/t Au** in hole KAS2106 within a broader mineralised zone indicates continuation of the mineralised system.
- A 1.5km strike extension under the lake at Kasagiminnis, and deeper extensions, remain open and untested.
- To date, only half of the **South Limb Gold Prospect's** iron formations have been drill tested. The most prospective area, directly south of the Dona Lake Gold Mine, will be the focus in the upcoming summer/autumn exploration campaign.

Gold explorer **Ardiden Limited** ('Ardiden' or 'the Company') (ASX: ADV) is pleased to update the market regarding exploration at the Company's Pickle Lake Gold Project. This update describes:

- 1) Airborne Geophysical survey and evaluation of the Esker Gold Prospect and the Western Hub
- 2) Reporting on the Winter drilling campaign at Kasagiminnis and South Limb

The Pickle Lake Gold Project is a continuous District-Scale land tenure package of 870km<sup>2</sup> (87,000 hectares) situated east of Red Lake in northwest Ontario. The connected tenure is majority 100% owned by Ardiden and currently contains 22 identified gold deposits and prospects that the Company is systematically exploring.

The Western Hub encompasses 50km of under-explored prospective strike length and contains both highly favourable geology and structural settings for gold mineralisation.

**Ardiden MD & CEO, Rob Longley** said *"The Western Hub evaluation has started to come together and is presenting strong similarities to other recent gold discoveries located along the same greenstone belt in the Red Lake area.*

*Implementation of an initial drill programme at the **Esker Gold Prospect** will be our key focus. **Esker** will be Ardiden's first step onto the Western Hub. This highly prospective structure exhibits similarities to the geological setting at Great Bear Resources' **Dixie/LP Fault**, which is located to our west at Red Lake.*

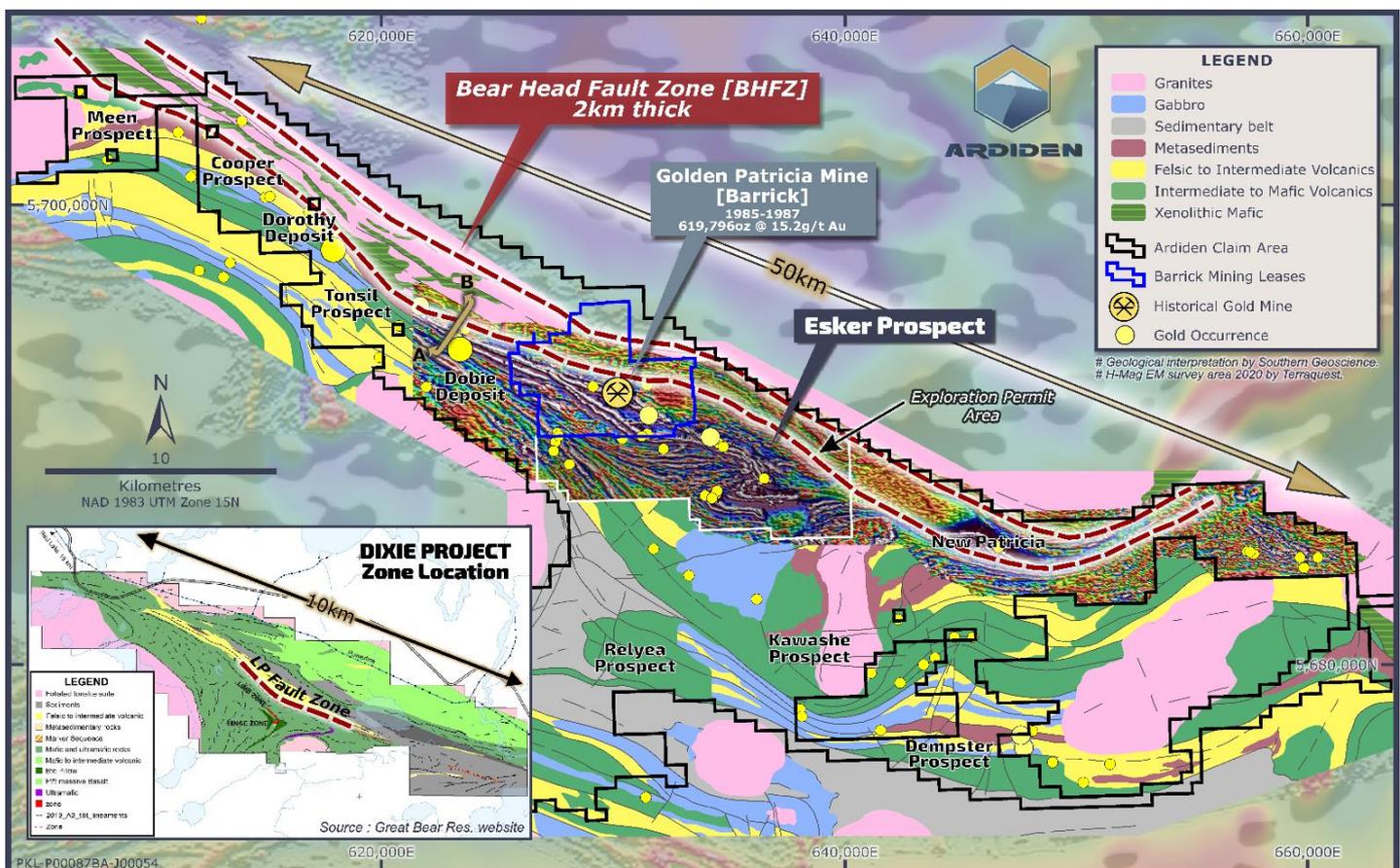
*Drilling at Esker requires MOUs with First Nation stakeholders. The Company is well advanced in its negotiations and can point to a responsible reputation in the area as Ardiden has delivered on all its commitments with the neighbouring Mishkeegogamang FN group at our fully permitted Kasagiminnis and South Limb Gold Prospects.*

Ardiden will return the drill rig to **South Limb** this Summer/Autumn to test the specific iron formation units running directly south from the Dona Lake Gold mine. Further drilling at **Kas** will wait until the next Winter season when we can get further out on the frozen lake and drill untested strike extensions to the east.

While this has been a challenging period between COVID-19 restrictions, which hindered skills availability, and weather fluctuations, we have still learned a lot about the Gold Prospectivity of this extensive landholding with under-explored greenfields and brownfields gold prospects”.

As shown below on Figure 1, the Western Hub interpretation from recent airborne geophysics, highlights strong geological similarities to the **Dixie Gold Project** at Red Lake and is about twice the size of the strike length.

This gold prospectivity is further evidenced by Ardiden’s 100%-owned Dorothy-Dobie Prospects (historical estimate\*<sup>1</sup> of **99,600 oz Au @ 5.7 g/t Au** (refer ASX release 2 August 2017) and Barrick’s Golden Patricia Mine (**619,796 oz @ 15.2g/t Au** production\*<sup>2</sup> from 1988 to 1997).



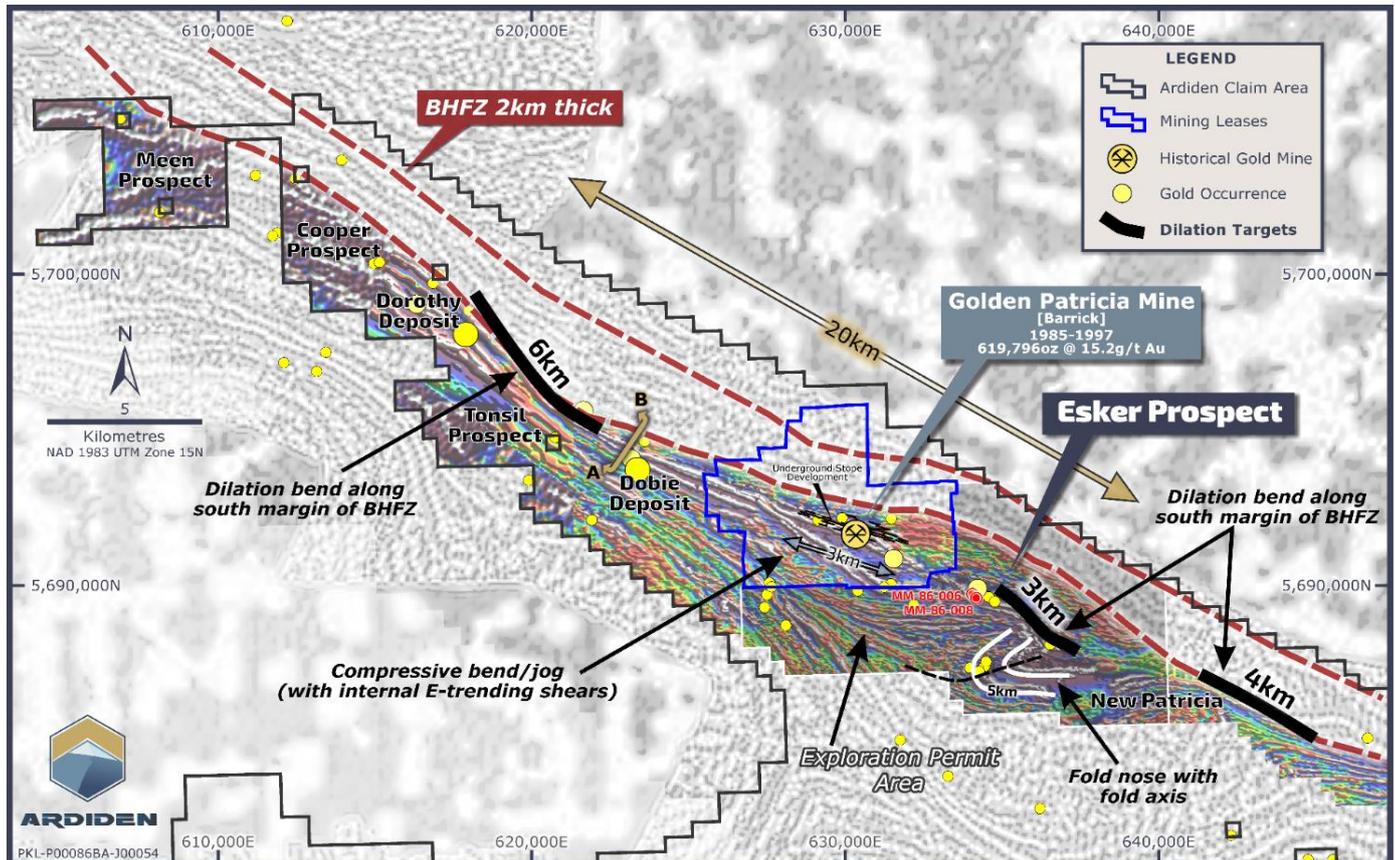
**Figure 1 – Geology of Ardiden’s ‘Western Hub’ at Pickle Lake, as compared to Great Bear Resources’ Dixie Gold Project (inset to scale)**

\*<sup>1</sup> Non-JORC historical estimates of the Dorothy and Dobie Deposits, are not reported in accordance with the JORC Code and a competent person has not done sufficient work to classify the historical estimates as mineral resources in accordance with the JORC Code. It is uncertain that following evaluation and further exploration work that the historical estimates will be able to be reported as mineral resources in accordance with the JORC Code

\*<sup>2</sup> Information in relation to historical gold production at the Golden Patricia Mine has been referenced from three sources of publication, namely: 1. Harron, G. A. 2009. Technical Report on Three Gold Exploration Properties Pickle Lake Area, Ontario, Canada. G.A. Harron, P.Eng., G.A. Harron & Associates Inc. 2. Smyk, M., Hollings, P. and Pettigrew, N., 2015. Geology and Mineral Deposits of The Pickle Lake Greenstone Belt. Institute on Lake Superior Geology, May 20-24, 2015, Field Trip Guidebook and 3. Puumala, M. A. 2009. Mineral Occurrences of the Central and Eastern Uchi Domain. ON Geol. Surv., Open File Report 6228.

### 1) Airborne Geophysical Survey and Evaluation of the Esker Gold Prospect and the Western Hub:

A recent Geophysical survey undertaken by Terraquest (Figure 4), extended detail coverage of the previous airborne survey over **New Patricia** (refer ASX announcement 13 October 2020) and now provides complete coverage of Ardiden's **Western Hub**.



**Figure 2 – Airborne Geophysics over Ardiden's 'Western Hub' including Barrick's Golden Patricia Gold Mine**

Over recent weeks, a comprehensive geological and structural interpretation undertaken by Southern Geoscience and renowned structural geologist Leigh Rankin\* in conjunction with Ardiden's geologists, provides a detailed geological picture that will underpin planning of drill programmes and other exploration work along the entire 50km strike length.

#### Esker Gold Prospect

The Company's Pickle Lake Gold Project has been subdivided into three geographical 'hubs' shown in Figure 10: the 'Western', 'Southern' and 'Eastern' Hubs. The **Esker Gold prospect** is in the Western Hub.

Ardiden is currently planning fieldwork at the **Esker Gold Prospect** as soon as First Nation Agreements are in place.

As illustrated on Figure 4 this is a significant regional scale mineralised structure that hosts the past-producing Golden Patricia mine with a head grade of **15.2g/t Au**, which closed in 1997 due to low gold prices.

Historical drilling at Esker shows significant widths of gold intersections including:

- **5.35m @ 3.1g/t Au** (including 24.0g/t Au over 0.3m) in hole ME88-06, and
- **12.03m @ 3.2g/t Au** (including 13.5g/t Au over 0.9m) in ME88-08.

(refer ASX announcement 18 February 2020).

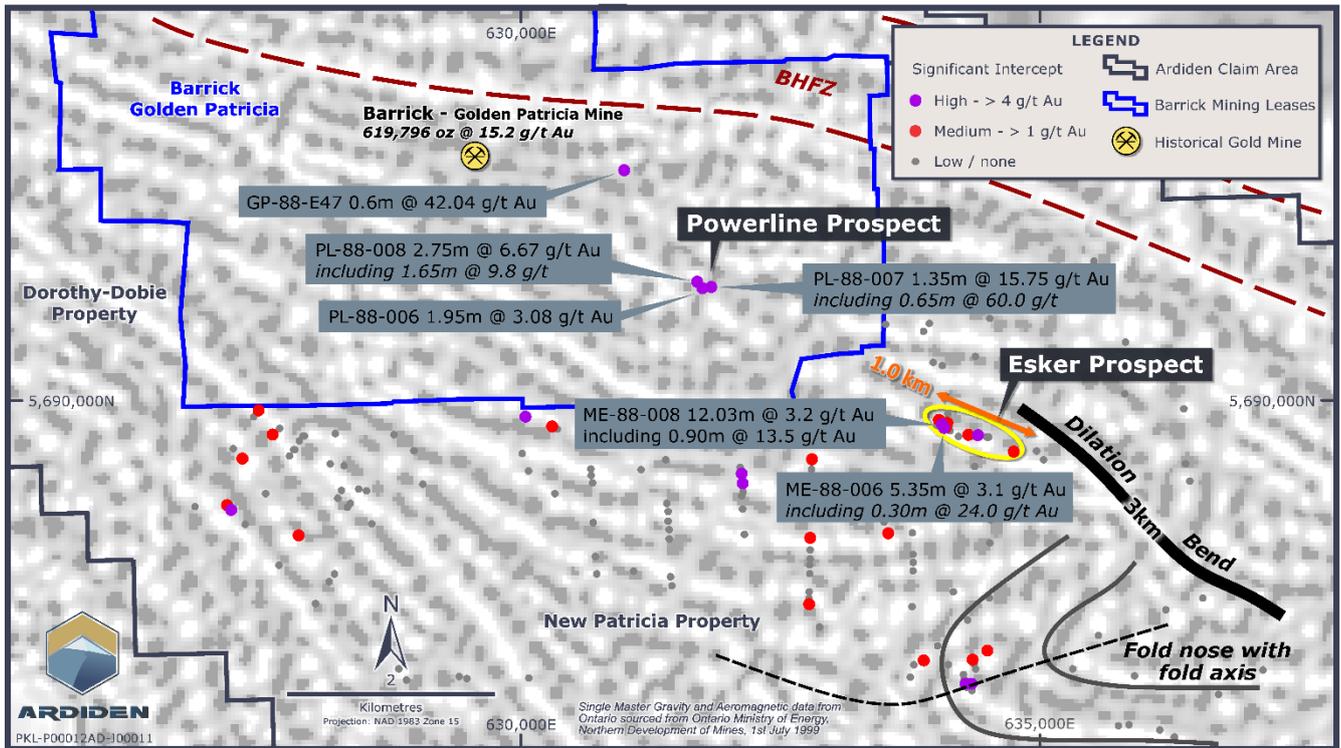


Figure 3 – Historical Drilling locations at Ardiden's Esker Gold Prospect and at the adjoining (Barrick-owned) Powerline prospect

These historical gold intercepts are distributed over a large 3 km under-explored structure at Esker and are associated with the northwest-southeast trending 'Bear Head Fault Zone' BHFZ, (which extends over a strike length of 50km.

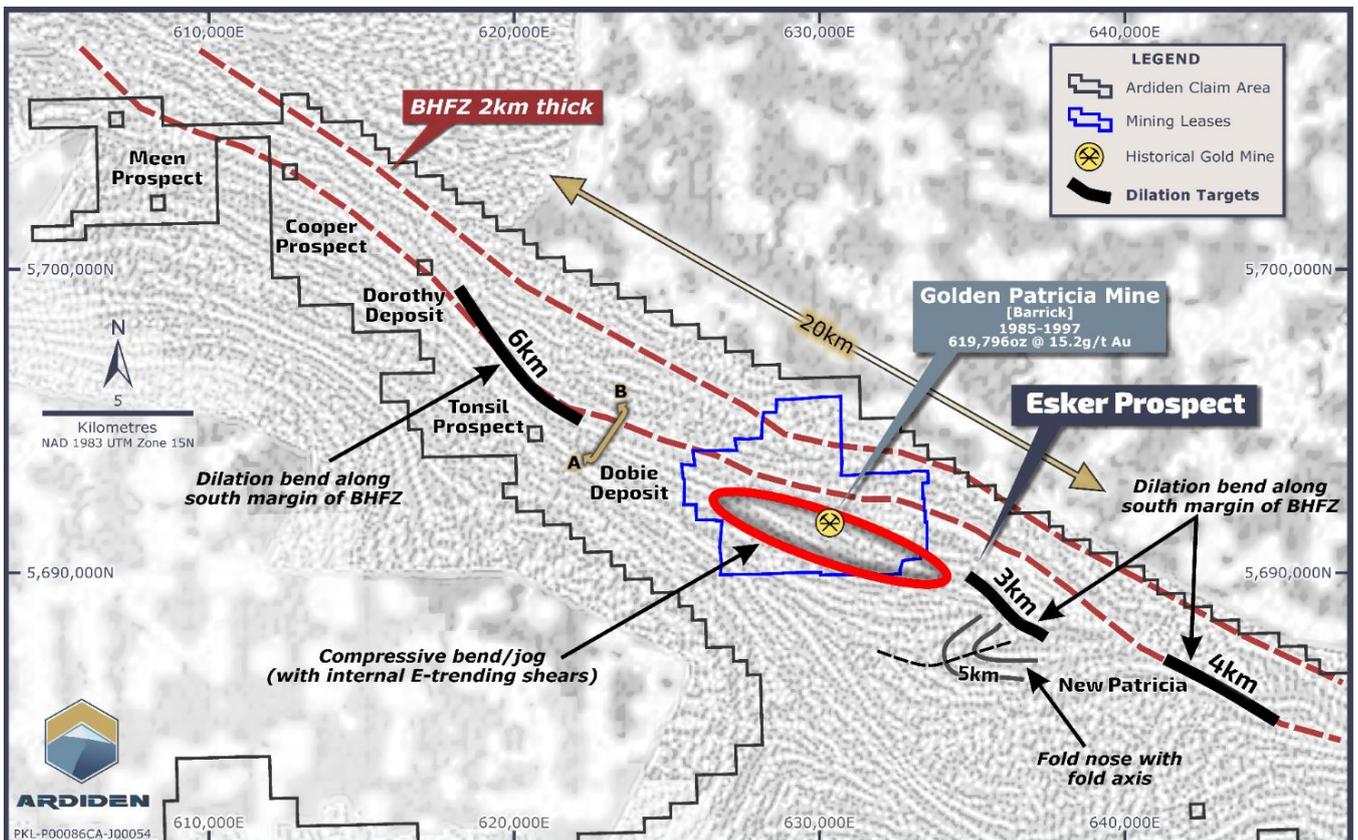
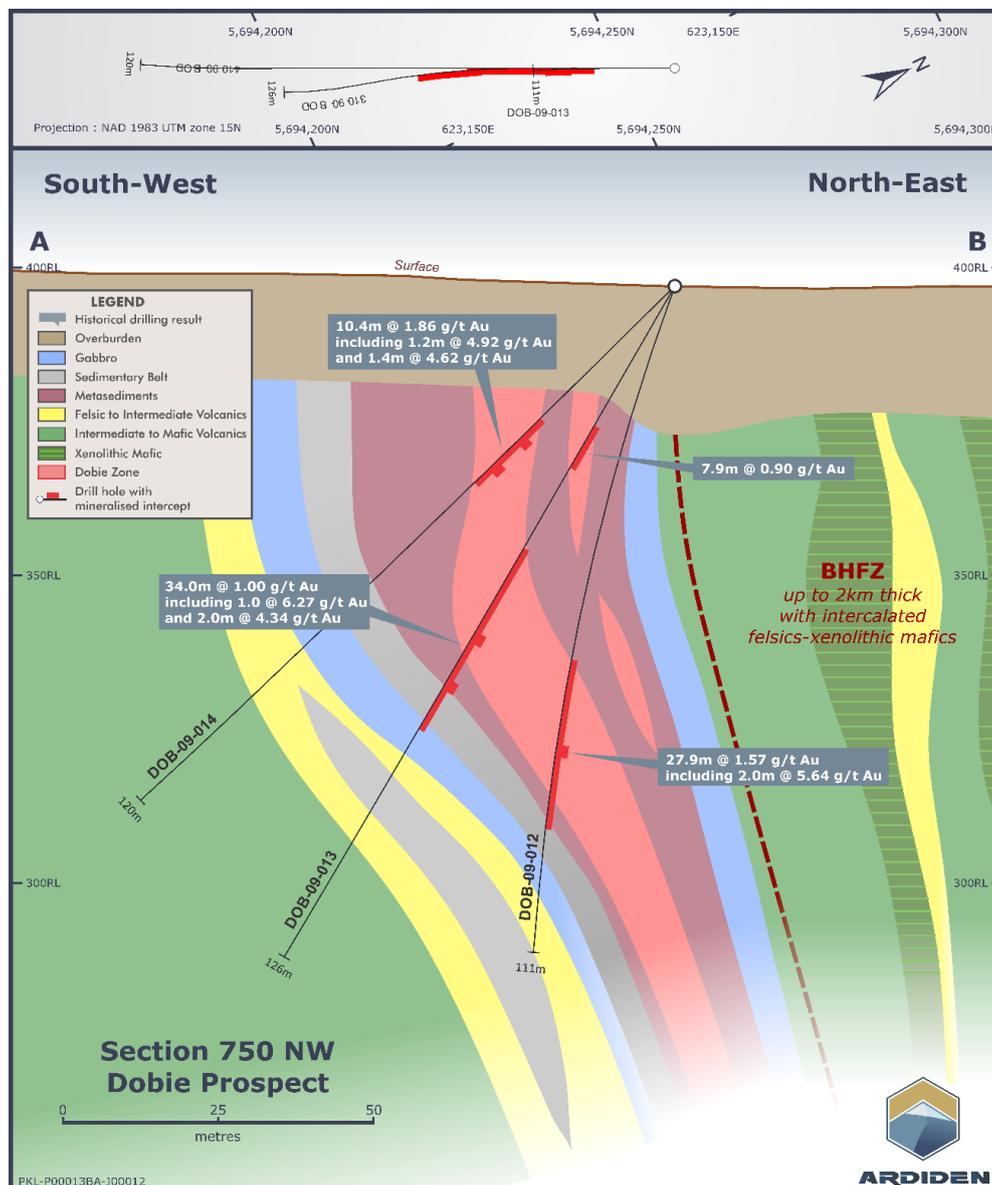


Figure 4 – Geophysical Interpretation of Large Prospective Structures at the Esker and 'Dorothy-Dobie Prospects.

Further northwest along the BHFZ, Ardiden's Western Hub area incorporating the **Dorothy and Dobie Gold Deposits** includes high grade significant gold intersections of:

- **0.5m @ 472.8 g/t Au** from 184.10m in DOR-90-043
  - **0.44m @ 153.5 g/t Au** from 111.40m in DOR-07-005
  - **1.50m @ 13.7 g/t Au** from 43.32m in DOR-88-034
  - **1.10m @ 12.0 g/t Au** from 71.72m in MDW-90-026
  - **8.63m @ 5.5 g/t Au** from 55.82m in DOR-88-028
  - **20.65m @ 3.6 g/t Au** from 96.85m in DOR-88-025
  - **7.12m @ 3.6 g/t Au** from 113.06m in DOR-88-032
- (refer ASX announcement 18 February 2020)

A typical cross section through the geology at the Western Hub is illustrated below in Figure 5. Historical high-grade results will aid Ardiden's initial targeting in this area. Step out drilling will seek to identify new zones of mineralisation based on detail geophysical surveys and structural interpretations.



**Figure 5 – Cross Section A-B from Ardiden's Dobie Prospect.**

For section location, refer to Figure 2 plan. For drillhole results, refer to ASX announcement 18 February 2020.

## 2) Reporting on the Winter Drilling Campaign at Kasagiminnis and South Limb

### Kasagiminnis Gold Deposit

Winter drilling at Ardiden's **Kasagiminnis Gold Deposit** was cut short due to rapidly warming weather which necessitated taking the rig off the ice prematurely. Only two holes were attempted on the frozen lake, east of previous drilling. Drillers were unable to properly collar these holes (KAS21-03/-04) and test the planned targeted depths. Consequently, the strike extension to the east remains untested and will be followed up next Winter utilising the improved access, now in place.

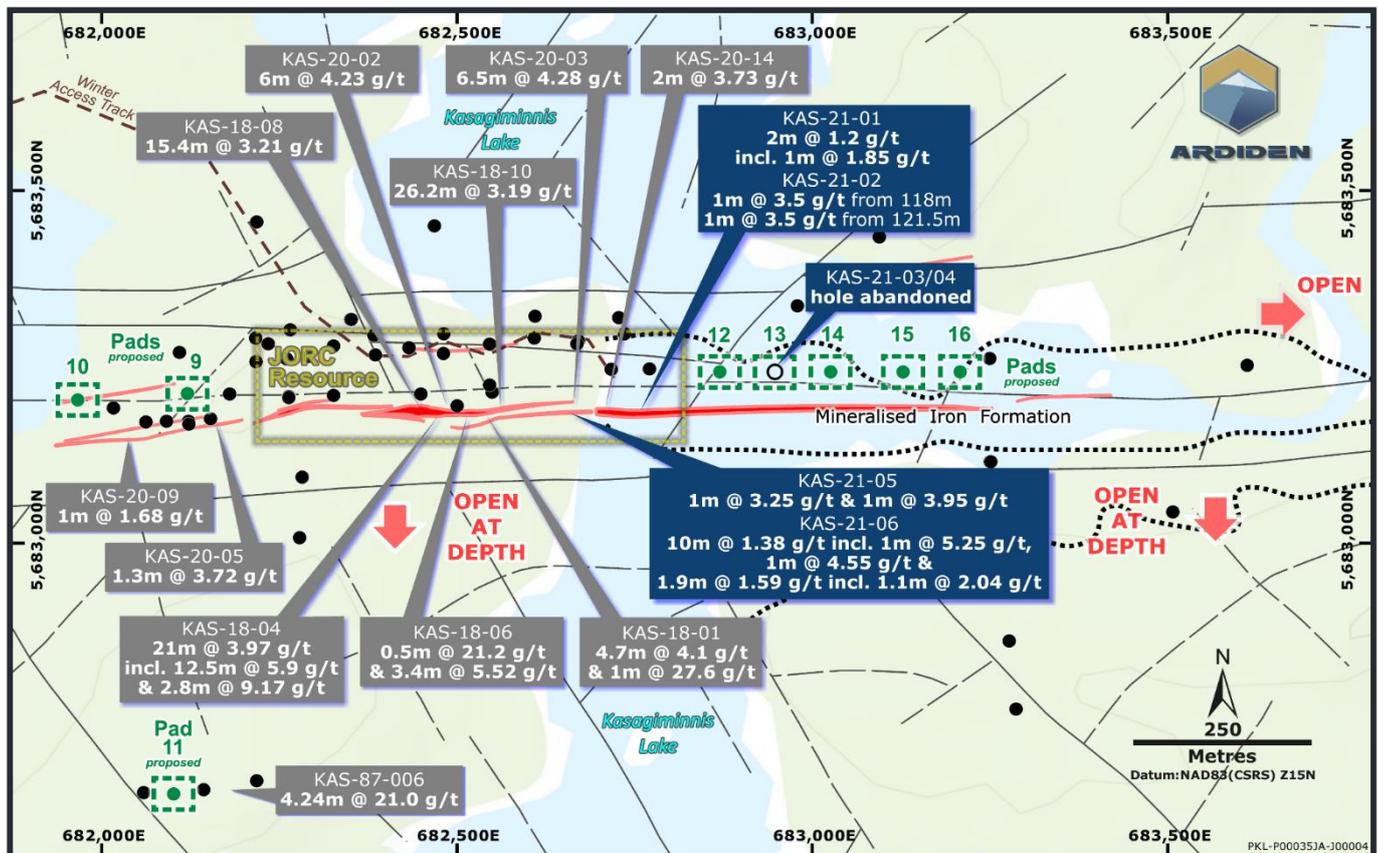


Figure 6 – Geophysics over the Kasagiminnis Gold Deposit

KAS2101, KAS2102, KAS2105 and KAS2106 all intersected gold mineralisation with grades up to **5.25g/t Au** as illustrated in Figure 6 and tabled at the end of this announcement.

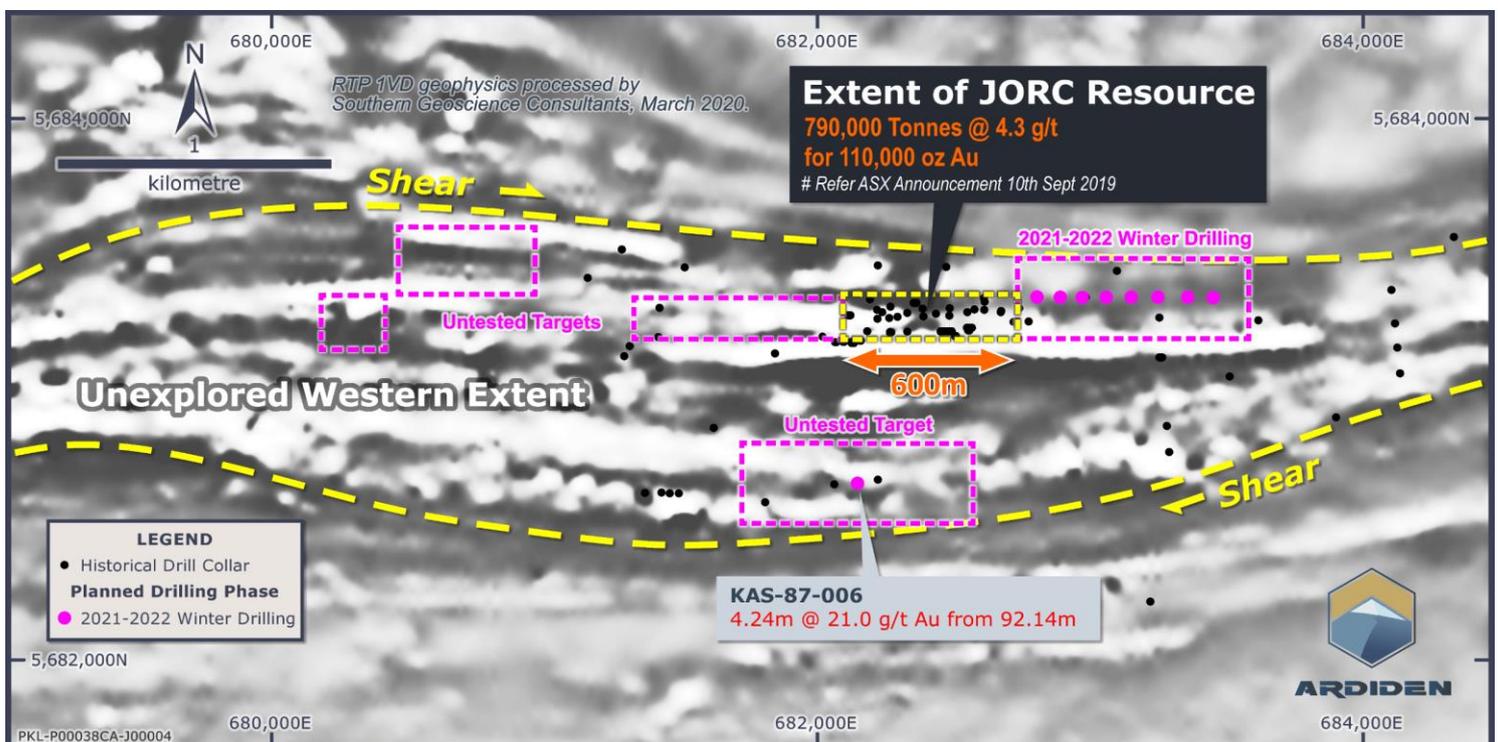
- KAS21-01: Mineralised iron formation within a suite of intermediate to mafic volcanics, weak to moderately foliated with flat lying shear zones defined by silica, carbonate, and chlorite alteration. Up to 5% pyrrhotite and 3% pyrite present with:
  - 2m @ 1.22g/t from 122m
- KAS21-02: Mineralized shear zones and iron formations with locally mineralized, moderately foliation bands up to 5% pyrrhotite and pyrite. High strain flat shear zone and anomalous mineralisation with:
  - 1m @ 3.49g/t from 118m
  - 2.0m @ 2.34 g/t from 121m
  - 1.5m @ 1.02 g/t from 129.5m
- KAS21-03: Hole abandoned
- KAS21-04: Hole abandoned

- KAS21-05: Mineralised intermediate to mafic volcanics with heavily altered shear zone, chlorite, carbonate, and albite alteration with up to 4% pyrrhotite and 3% pyrite present with:
  - 1m @ 3.25 g/t from 103m
  - 1m @ 3.95 g/t from 112m
- KAS21-06: Felsic to Mafic volcanics with a series of flat high strain flat shear zones and localised brecciation, alteration is patchy to pervasive with chlorite, carbonate, and silica. Mineralisation is up to 3% with pyrrhotite and 3% pyrite present with:
  - 1m @ 1.55 g/t from 147m
  - 1m @ 5.25 g/t from 148m
  - 2m @ 1.23 g/t from 149m
  - 1m @ 4.55 g/t from 156m
  - 1.9m @ 1.68 g/t from 161m

The high-grade one metre intercept of **5.25g/t Au** in hole KAS2106 within a broader 4m mineralised zone averaging 2.3g/t Au from 147m, indicates that the mineralised system continues near surface.

Measurements from orientated core at Kas in conjunction with ongoing geophysical interpretations strongly indicates that identified sub-horizontal structures and offset faults represent significant controlling factors of gold distribution.

This is important to recognise in evaluating the broader area of dilation at Kasagiminnis (**Figure 7**) which extends over 4km and includes numerous other drill target areas that will be progressively drill tested.



**Figure 7 – Zoomed-out to the larger 4km wide dilational structure at Kasagiminnis**

## South Limb Gold Prospect

A total of 6 holes (1,293m) were completed at the eastern end of the **South Limb** Gold Prospect before the rig was relocated to Kasagiminnis. Sampling of these holes, described below, encountered sulphides but no significant gold assays.

As shown below in Figure 8, the two most prospective iron formations (in red) at South Limb, leading south from the Dona Lake mine, are yet to be drilled but are planned to be tested during the upcoming Summer/Autumn drill campaign. The underground Dona Lake Gold Mine (Newmont Corp.) was developed to a depth of 455m and produced approximately **250Koz of gold at 6.6g/t Au** until its closure in 1993 due to low gold prices.

- SL21-01: Strongly foliated amphibolite schist with oxidised iron formation through to quartz porphyry, pyrite in 1-2 cm bands through sequence from 12-160m
- SL21-02: Series of intercalated mafic volcanics with iron formations with up to 5% pyrite present to 122m, tonalite-granodiorite until 200m
- SL21-03: Intercalated porphyry to mafic volcanic with 5% pyrite stringers in iron formation, tonalite-granodiorite from 135m to 170m
- SL21-04: Iron formation with up to 7% pyrrhotite and pyrite, sheared gabbro/mafic volcanics
- SL21-05: Iron formation with up to 7% pyrrhotite stringers, sheared gabbro/mafic volcanics
- SL21-06: Iron formation with up to 5% pyrrhotite, pyrite and chalcopyrite stringers, sheared gabbro/mafic volcanics

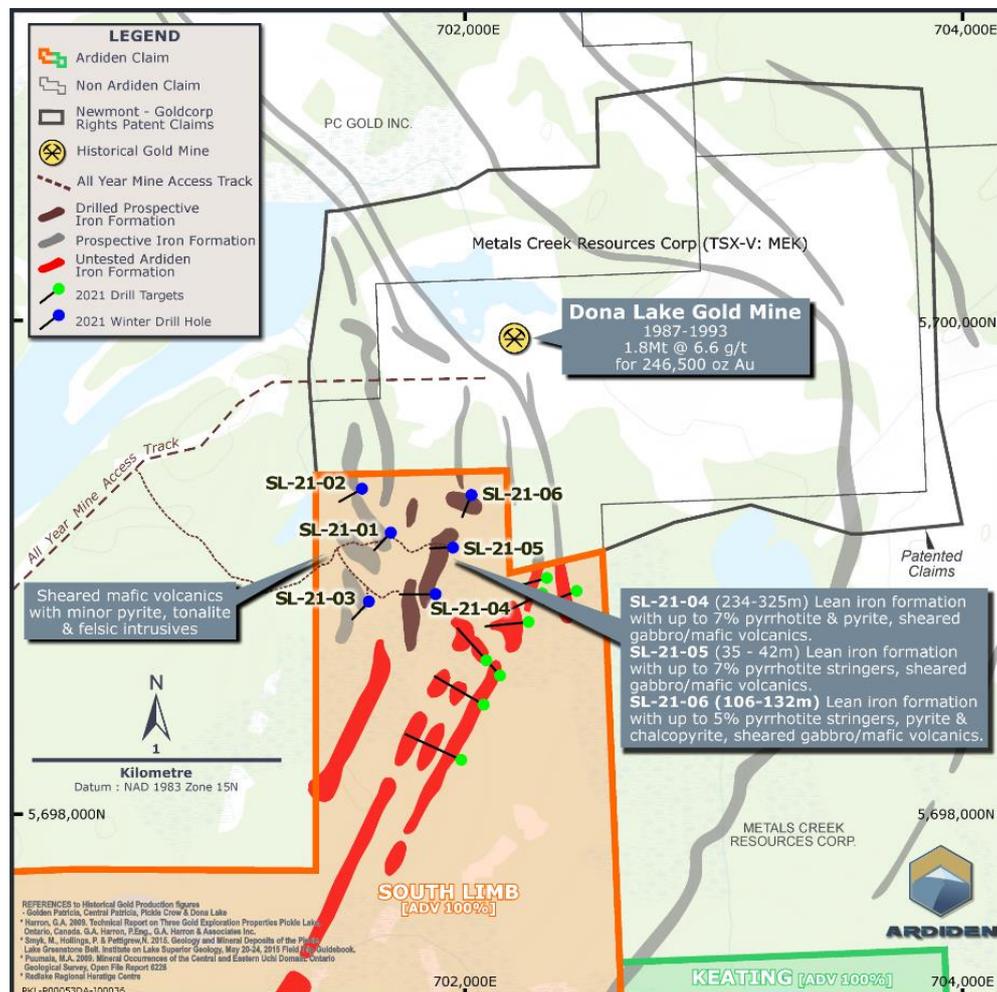


Figure 8 - Drilling Progress at the South Limb Gold Prospect.

## About Ardiden (ASX: ADV)

Ardiden Limited is focused on systematic gold exploration at its Pickle Lake Gold Project in north-west Ontario, Canada. The project consists of a District-Scale 870km<sup>2</sup> (**87,000 hectares**) highly prospective gold landholding, inclusive of 22 currently identified Gold Deposits and Prospects.

Pickle Lake is situated 180km east of the 30Moz Red Lake gold-producing district (Figure 11) and within the same Archaean Uchi Geological Subprovince of northwest Ontario. Ardiden has aggregated a large and continuous tenure landholding to underpin its long-term strategy to systematically explore for and discover high grade gold deposits in the region.

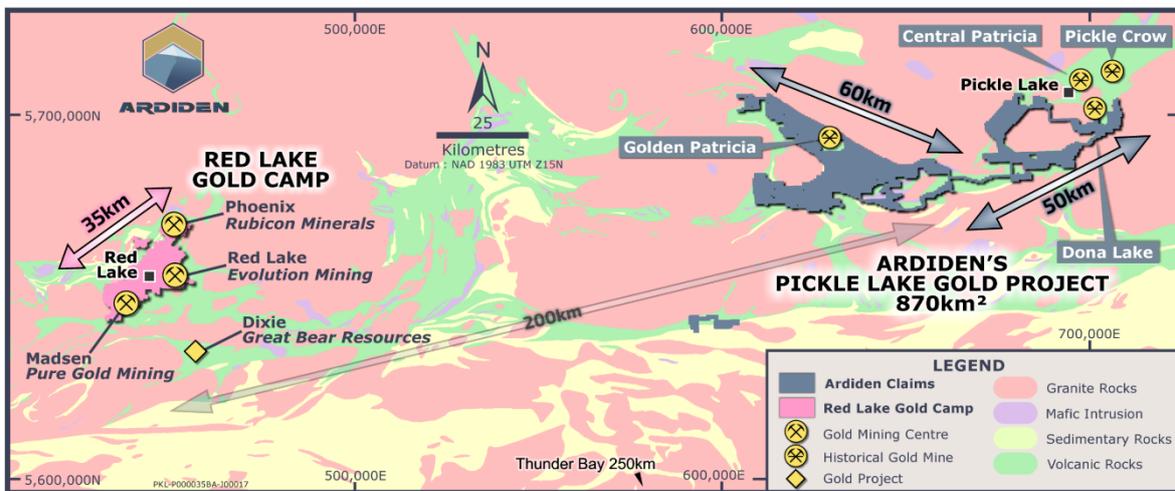


Figure 9 – Red Lake to Pickle Lake Uchi Geological Subprovince

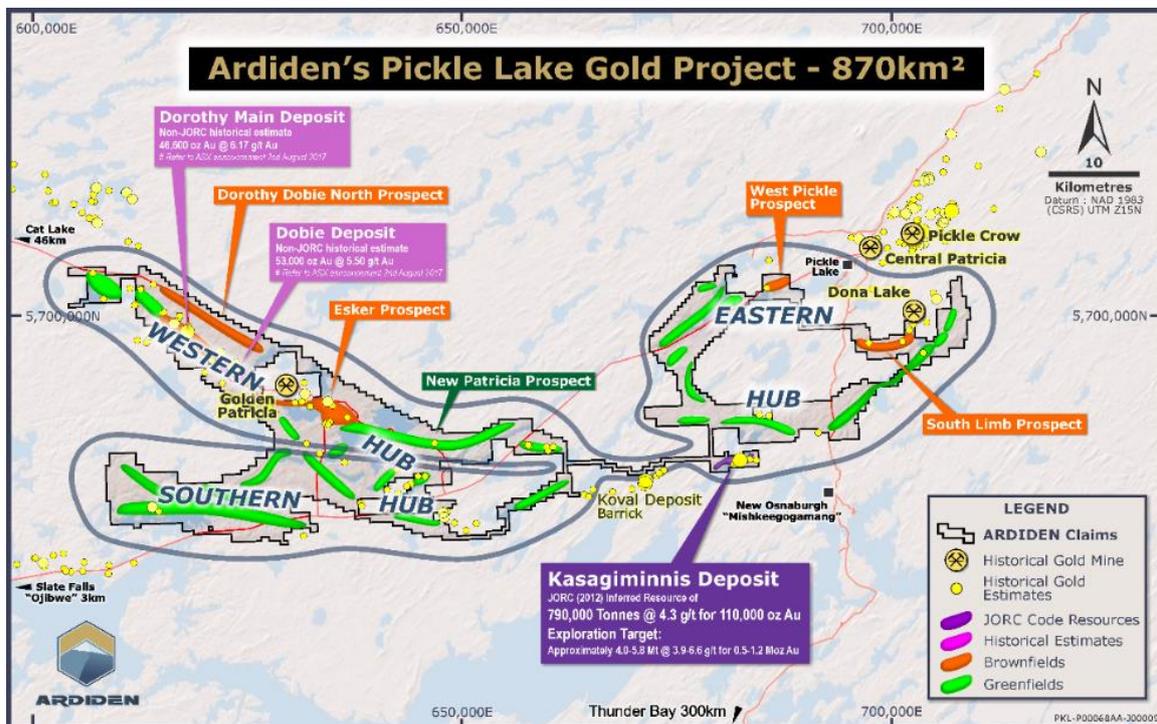


Figure 10 - Ardiden's District Scale Pickle Lake Gold Project

\*The potential quantity and grades stated for the Exploration Target is conceptual in nature and there has been insufficient exploration to define Mineral Resources across the exploration target area. It is uncertain if further exploration of these targets will produce results that permit additional Mineral Resources to be estimated.

In addition to the Pickle Lake Gold project, Ardiden also owns three hard rock (spodumene) Lithium Projects in north-west Ontario, which are currently under an exclusive Option with Great Northern Lithium (GNL) for Ardiden to sell 80% ownership for \$8.7 million and have free carry in an 80/20 Joint Venture up to completion of a Definitive Feasibility Study (refer ASX announcement 6 May 2021).

This information is authorised for ASX release by the Board of Directors.

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**More information is available from the Company's website: [www.ardiden.com.au](http://www.ardiden.com.au)**

**\* About Structural Geologist, Leigh Rankin:**

**Leigh Rankin** BSc (Hons), RPGeo, MAIG, MGSA, MSEG: Leigh is an internationally recognised expert in geophysical interpretation, having delivered over 200 specialised training workshops on the interpretation of magnetic data, and is co-author of the textbook 'Geological Interpretation of Aeromagnetic Data' (2013: ASEG Special Publication). He has over 25 years' experience in integration of field geology, remotely sensed and geophysical data to provide coherent geological frameworks for mineral targeting. He has worked on both geophysical interpretation and structural mapping projects in over 35 countries for including Canada and the US.

**Competent Person's Statement**

*The information in this report that relates to **Exploration Results and Exploration Targets at the Pickle Lake Prospects** is based on, and fairly represents, information and supporting documentation prepared by Mr Robin Longley, a Member of the Australian Institute of Geoscientists, that it a named competent person or persons; Mr Longley is a full-time employee of Ardiden Limited. Mr Longley has sufficient experience which is relevant to the style of mineralisation and type of deposit and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Longley consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.*

*The information in this report that relates to JORC **Mineral Resources** is based on is based on, and fairly represents, information and supporting documentation prepared by Mr Robin Longley, a Member of the Australian Institute of Geoscientists, and Mrs Christine Standing, a Member of the Australian Institute of Geoscientists and a Member of the Australasian Institute of Mining and Metallurgy. Mr Longley is a full-time employee of Ardiden Limited. Mrs Standing is employed by Optiro Pty Ltd and is a consultant to Ardiden. Mr Longley and Mrs Standing have sufficient experience which is relevant to the style of mineralisation and type of deposit and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Longley and Mrs Standing consent to the inclusion in this report of the matters based on this information in the form and context in which it appears.*

*References and sources of information: Dona Lake, Golden Patricia and Pickle Crow Mine production:*

- Harron, 2009 NI43-101 Technical Report on "Three Gold Exploration Properties Pickle Lake Area, Ontario, Canada, for Manicouagan Minerals Inc", G.A. Harron, P.Eng., G.A. Harron & Associates Inc, October 13, 2009.
  - [www.murchisonminerals.com/site/assets/files/5443/pickel-lake-project\\_tehcnical\\_report.pdf](http://www.murchisonminerals.com/site/assets/files/5443/pickel-lake-project_tehcnical_report.pdf)
  - The 2009 Harron report relies upon the following references for the non-JORC historical estimates:
    - Blackburn, C.E., Hailstone, M.R., Parker, J. and Story, C.C., 1988, Kenora Resident Geologist's Report – 1988; p. 3-46 in Report of Activities 1988, Resident Geologists edited by K.G. Fenwick, P.E. Giblin and A.E. Pitts, Ont. Geol. Surtv, MP 142, 391 p;
    - Seim, G.W., 1993, Mineral Deposits of the Central Portion of the Uchi Subprovince, Vol. 1, Meen Lake to Kasagiminnis Lake Portion, Ont. Geol. Surv. OFR 5869, 390 p.

*The Company confirms it is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters underpinning the mineral resource estimates continue to apply and have not materially changed.*

## APPENDIX - DRILLHOLE COLLAR TABLE

	Drill Hole	Easting	Northing	RL	Azimuth NAD83	Depth (m)	Dip	Deposit	Owner	Comments
1	KAS-2101	682743	5683260	377.4	180	144.37m	-45	Kasagiminnis Deposit	100% Ardiden	Reported Here
2	KAS-2102	682743	5683260	377.4	180	219.70m	-70	Kasagiminnis Deposit	100% Ardiden	Reported Here
3	KAS-2103	682950	5683253	377.4	180	51m	-45	Kasagiminnis Deposit	100% Ardiden	Hole Abandoned
4	KAS-2104	682950	5683253	377.4	180	21m	-70	Kasagiminnis Deposit	100% Ardiden	Hole Abandoned
5	KAS-2105	682650	5683260	380	180	161m	-50	Kasagiminnis Deposit	100% Ardiden	Reported Here
6	KAS-2106	682650	5683260	380	180	257m	-70	Kasagiminnis Deposit	100% Ardiden	Reported Here
7	SL-2101	701696	5699146	387	205	200m	-45	South Limb Prospect	100% Ardiden	Reported Here
7	SL-2102	701584	5699321	387	270	206m	-45	South Limb Prospect	100% Ardiden	Reported Here
7	SL-2103	701610	5698886	387	270	170m	-45	South Limb Prospect	100% Ardiden	Reported Here
7	SL-2104	701883	5698908	388	215	338m	-45	South Limb Prospect	100% Ardiden	Reported Here
7	SL-2105	701952	5699096	388	215	200m	-45	South Limb Prospect	100% Ardiden	Reported Here
7	SL-2106	702030	5699312	387	245	179m	-45	South Limb Prospect	100% Ardiden	Reported Here

## DRILLHOLE ASSAY RESULTS TABLE (GOLD)

Drill Hole	From (m)	To (m)	Sample ID	Au a/t Grade	Deposit
KAS-2101	122	123	759056	<b>0.55</b>	Kasagiminnis Deposit
KAS-2101	123	124	759057	<b>1.84</b>	Kasagiminnis Deposit
KAS-2102	118	119	759128	<b>3.49</b>	Kasagiminnis Deposit
KAS-2102	121	121.50	759131	<b>0.76</b>	Kasagiminnis Deposit
KAS-2102	121.50	122.50	759132	<b>3.46</b>	Kasagiminnis Deposit
KAS-2102	122.50	123	759133	<b>0.56</b>	Kasagiminnis Deposit
KAS-2102	129.5	131	759140	<b>1.02</b>	Kasagiminnis Deposit
KAS-2105	103	104	759279	<b>3.25</b>	Kasagiminnis Deposit
KAS-2105	112	113	759290	<b>3.95</b>	Kasagiminnis Deposit
KAS-2106	147	148	759386	<b>1.55</b>	Kasagiminnis Deposit
KAS-2106	148	149	759387	<b>5.25</b>	Kasagiminnis Deposit
KAS-2106	149	150	759388	<b>1.09</b>	Kasagiminnis Deposit
KAS-2106	150	151	759389	<b>1.37</b>	Kasagiminnis Deposit
KAS-2106	152	153.2	758392	<b>0.69</b>	Kasagiminnis Deposit
KAS-2106	155	156	759395	<b>0.52</b>	Kasagiminnis Deposit
KAS-2106	156	157	753396	<b>4.55</b>	Kasagiminnis Deposit
KAS-2106	161	161.8	759402	<b>1.18</b>	Kasagiminnis Deposit
KAS-2106	161.8	162.9	759403	<b>2.04</b>	Kasagiminnis Deposit
KAS-2106	173	174.05	759415	<b>0.62</b>	Kasagiminnis Deposit

\*Drill assays not reported above 0.5 g/t Au

## JORC Code, 2012 Edition – Table 1

### DOROTHY DOBIE, KASAGIMINNIS & SOUTH LIMB GOLD PROPERTIES

**JORC Code Table 1 Criteria** - The table below summaries the assessment and reporting criteria used for the Dorothy Dobie Gold Property Geophysical Survey, South Limb and Kasagiminnis Gold Property Exploration Results that reflects the guidelines in Table 1 of *The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves* (the JORC Code, 2012).

#### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality 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> </ul>	<p><b><u>Sampling techniques</u></b></p> <ul style="list-style-type: none"> <li>A high-resolution Aeromagnetic Radiometer, Radiometric, Matrix Digital VLF-EM Survey airborne geophysical survey was conducted by TerraQuest Limited over the entire Dorothy-Dobie Gold Deposit Area.</li> <li>The survey included High-Resolution Aeromagnetic, Horizontal Gradiometer, Radiometrics and Matrix Digital VLF-EM.</li> <li>It has extended more than 1200 line-kilometres over the entire Dorothy-Dobie claims to provide detailed and complete coverage of this property.</li> <li>Samples from the Kasagiminnis and South Limb property have been derived from diamond drill core. The core has been logged, cut, and sampled by qualified personnel to industry best practise and samples submitted to Actlabs in Ontario, a reputable and certified facility.</li> <li>Prior to shipping, all samples were routinely subjected to wet/dry weight SG determination by Ardiden Ltd personnel and geological comments on each sample documented. The entire half-core sample was used in this process.</li> <li>All samples received by Actlabs were crushed to 80% passing 2-10mm mesh sieve. This was then riffle split to a 250g sample which was pulverised to 90% passing 150 microns.</li> <li>A 30g subsample was then subject to Fire Assay for Au, subjected to an Aqua Regia digestion and finished by AAS.</li> <li>Another 0.5g subsample is subjected to an Aqua Regia digest and ICP for Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Hg, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sr, Te, Ti, Tl, U, V, W, Y, Zn, Zr.</li> <li>These techniques are considered appropriate for the mineralisation expected at the Dorothy Dobie and Kasagiminnis Properties.</li> </ul> <p><b><u>Other Sampling and Assays</u></b></p> <ul style="list-style-type: none"> <li>All reference to historical drilling results and Geophysical Surveys at Dorothy Dobie, Kasagiminnis Lake and South Limb gold deposits were sourced from publicly available documents.</li> <li>Sources included: <ul style="list-style-type: none"> <li>Technical Report on Three Gold Exploration Properties Pickle Lake Area, Ontario, Canada, for Manicouagan Minerals Inc., G.A. Harron, P.Eng., G.A. Harron &amp; Associates Inc., October 13, 2009;</li> <li>Manicouagan Minerals Inc. Work Report of 2009 Diamond Drilling Program Dorothy-Dobie Lake Project Pickle Lake Area, Ontario, Bruce W. Mackie P.Geo., Bruce Mackie Geological Consulting Services, 30 December 2009;</li> </ul> </li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>○ Manicouagan Minerals Inc. Work Report of 2011 Phase One and Two Diamond Drilling Programs Kasagiminnis Lake Project Pickle Lake Area, Ontario, Bruce W. Mackie P.Ge., Bruce Mackie Geological Consulting Services, October 2011;</li> <li>○ Blackburn, C.E., Hailstone, M.R., Parker, J. and Story, C.C., 1989, Kenora Resident Geologist's Report – 1988; p. 3-46 in Report of Activities 1988, Resident Geologists edited by K.G. Fenwick, P.E. Giblin and A.E. Pitts, Ont. Geol. Surv., MP 142, 391 p;</li> <li>○ Seim, G.W., 1993, Mineral Deposits of the Central Portion of the Uchi Subprovince, Vol. 1, Meen Lake to Kasagiminnis Lake Portion, Ont. Geol. Surv. OFR 5869, 390p;</li> <li>○ the Trillium North Minerals Ltd. <i>Summer 2007 Dorothy Dobie Property Diamond Drill Program Dobie Lake, Meen Lake and Kawashe Lake Areas Patricia Mining District Ontario</i>, Caitlin Jeffs, P.Ge. Fladgate Exploration Consulting Corporation, 12 Jun 2008; and</li> <li>○ White Metal Resources Corporate Presentation, January 2017.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>• <i>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).</i></li> </ul>	<p><b><u>Drilling techniques</u></b></p> <ul style="list-style-type: none"> <li>• All samples and geological information have been derived from diamond core using standard equipment of NQ2 size (51mm diameter).</li> <li>• The holes were completed by Major Drilling of Ontario in 2021.</li> <li>• The drill core was oriented by Major drilling and verified by Ardiden Limited.</li> <li>• Not applicable to the geophysical survey.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>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.</i></li> </ul>	<p><b><u>Drill Sample Recovery</u></b></p> <ul style="list-style-type: none"> <li>• All drill core was measured and compared to actual drilled depths on a run-by-run basis by the company geologist and driller to determine core recovery and Rockmass Quality Data (RQD). Recoveries averaged higher than 99.9% with the only loss of material coming from the overburden. This horizon is not considered prospective for Ardiden Ltd.'s purposes.</li> <li>• Core recovery through the mineralised zones is 100%.</li> <li>• No sample bias was observed.</li> <li>• Not applicable to the geophysical survey.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<p><b><u>Logging</u></b></p> <ul style="list-style-type: none"> <li>• All diamond core has been marked up, inspected, logged and photographed by suitably trained and qualified personnel.</li> <li>• Logging detail includes Depth, Hole Orientation, Lithology, Alteration, Veining, Mineralogy, Mineralised Zonation, RQD, Magnetic Susceptibility and Structure. These methods involve a combination of both qualitative and quantitative determinations.</li> <li>• Not applicable to the geophysical survey.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>Measures taken to ensure that the sampling is representative of the in-situ material collected,</i></li> </ul>	<p><b><u>Sampling</u></b></p> <ul style="list-style-type: none"> <li>• All samples have been derived from NQ2 diamond core and have been cut in half or quartered using a standard brick saw. Foliation is aligned perpendicular to the cut. This technique is considered appropriate for the mineralisation historically observed at the Kasagiminnis Lake and South Limb Property.</li> <li>• Field duplicates (half-core cut in half again) have been submitted to the lab at a rate of 1 in 50 to evaluate the sampling technique as per standard industry practise.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>including for instance results for field duplicate/second-half sampling.</i></p> <ul style="list-style-type: none"> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Ardiden Ltd. has retained and stored all remaining half-core samples for future reference/use.</li> <li>• Not applicable to the geophysical survey.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>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.</i></li> </ul>	<p><b>QAQC</b></p> <ul style="list-style-type: none"> <li>• Actlabs is a certified lab (17025 accredited) and subject to its own internal QAQC processes.</li> <li>• Actlabs digest processes are considered total and appropriate for this style of mineralisation.</li> <li>• Ardiden Ltd. determined SG values have been derived from whole-sample wet/dry weights using a suitable set of electronic scales as per industry standard practise.</li> <li>• Field duplicates have been derived at a ratio of 1 in 40 samples.</li> <li>• Certified Gold standards and blanks have been inserted into the sample stream at a ratio of 1 in 20.</li> <li>• Actlabs is subject to its own internal QAQC determinations. A duplicate sample is generated for <i>crushed</i> samples at a rate of 1 in 50. Another duplicate for <i>pulverised</i> samples is generated at a rate of 1 in 50.</li> <li>• Laboratory instruments are calibrated every 42 samples.</li> <li>• Laboratory blanks (x2), certified reference materials (x2) and sample duplicates (x3) are analysed within every 42 samples in the batch tray.</li> <li>• Ardiden has viewed the QAQC results, and they are considered acceptable.</li> <li>• Not applicable to the geophysical survey.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<p><b>Sample Verification</b></p> <ul style="list-style-type: none"> <li>• Sample results have been merged into company database by Ardiden LTD. personnel.</li> <li>• Twinned holes have not been employed as a check to the current program at this stage.</li> <li>• All data is electronically logged in Access and stored on the company's database. A master copy of this data exists on the Ardiden Ltd. server in Australia.</li> <li>• The data is imported into Micromine software for visual checks and database validation by a competent person.</li> <li>• Grades for significant intersections are calculated on length and SG weighted averages.</li> <li>• Not applicable to the geophysical survey.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>• <i>Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<p><b>Sample Locations</b></p> <ul style="list-style-type: none"> <li>• The 2021 program of drilling was subject to suitable location and orientation techniques given the technically difficult nature of the location and magnetic lithologies.</li> <li>• Initially, hole locations have been placed in NAD83-15 using a hand-held GPS and notes have been recorded on how these locations relate to existing holes and clearing.</li> <li>• The drill rig was aligned to planned azimuth using a reflex automatic positioning system (APS), a satellite seeking instrument prior to collaring.</li> <li>• Downhole surveys were conducted using a true north seeking Reflex Giro Sprint-IQ multishot tool. This instrument records dip, true north azimuth, and temperatures. This tool is not affected by magnetism.</li> <li>• Surveys were all calculated to UTM (Grid North) based on grid convergence angles at Kasagiminnis and South Limb.</li> <li>• Not applicable to the geophysical survey.</li> </ul>
Data spacing and distribution	<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</i></li> </ul>	<p><b>Sample Locations</b></p> <ul style="list-style-type: none"> <li>• The 12 drillholes with results reported in this report have been drilled from three drill pad locations spaced up to 200m apart. Holes have originated from the same drill pad and tested the</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>Ore Reserve estimation procedure(s) and classifications applied.</i></p> <ul style="list-style-type: none"> <li>Whether sample compositing has been applied.</li> </ul>	<p>down-dip continuity at different dip angles as illustrated in this report.</p> <ul style="list-style-type: none"> <li>The data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource estimation and classification applied.</li> <li>No sample composites have been created.</li> <li>Not applicable to the geophysical survey.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<p><b>Sampling</b></p> <ul style="list-style-type: none"> <li>Due to the difficulty in mobilising and moving drill rigs at Kasagiminnis, a series of holes were drilled from one location. South Limb holes were all drilled from individual locations. Both dip and azimuth changes were performed. Thus, it will be rare that any drillhole will intersect the mineralisation in a purely perpendicular manner.</li> <li>There is no expected assay bias resulting from the orientation of drilling due to the nature of mineralisation observed at the Kasagiminnis Lake or the South Limb Property.</li> <li>Not applicable to the geophysical survey.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<p><b>Chain of Custody</b></p> <ul style="list-style-type: none"> <li>Samples are kept on location until a drillhole is fully sampled. The samples are then taken directly to the lab by Ardiden Ltd. personnel without the use of any intermediaries.</li> <li>Not applicable to the geophysical survey.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<p><b>Audits</b></p> <ul style="list-style-type: none"> <li>A full sample review was conducted prior to writing sampling, logging and QAQC procedures for all Ardiden Ltd. personnel.</li> <li>These procedures were then used for the current program and supervised internally by Ardiden Ltd. personnel in charge of the due-diligence program.</li> <li>Not applicable to the geophysical survey.</li> </ul>

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>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.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The Dorothy-Dobie Gold Prospect consists of 273 Cell units covering a contiguous area of 59 km<sup>2</sup>.</li> <li>The Kasagiminnis Lake Gold Deposit consists of 49 cell units covering a contiguous area of 10 km<sup>2</sup>.</li> <li>The South Limb Gold Prospect consists of 94 cell units covering a contiguous area of 20 km<sup>2</sup>.</li> <li>Ardiden Limited owns the tenements 100% with the exception of the Golden Patricia Mine area which is owned by Barrick Gold.</li> <li>There are no known issues affecting the security of title or impediments to operating in the area.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The Pickle Lake Project containing Dorothy Dobie and Kasagiminnis are located within the Pickle Lake area, Kenora (Patricia) Mining Division, Ontario. Significant gold deposits including the historical Pickle Crow Gold Mine.</li> <li>Over 25,000 m of historical diamond drilling were completed across the Pickle Lake Gold Properties by previous owners, confirming the potential for multiple extensive gold mineralised zones at both Dorothy-Dobie Lake and Kasagiminnis Lake deposit, with gold mineralisation remaining open along strike and at depth.</li> <li>A list of technical reports prepared by previous exploration companies is included in Section 1 of this table.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Pickle Lake Gold Project is located within the Meen-Dempster greenstone belt and the adjoining Pickle Lake greenstone belt, which contain the known gold deposit (Kasagiminnis) and prospects (South Limb, West Pickle, Dorothy-Dobbie, Meen, Dempster, Fry McVean, Kawashe, Duffell, Relyea, Jean, Keating,</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>250 and New Patricia). Greenstone belts are located on the southern margin of the North Caribou terrane within the Uchi domain.</p> <ul style="list-style-type: none"> <li>• Rocks within the Uchi domain greenstone belts display petrochemical characteristics of arc and back-arc volcanism.</li> <li>• Structurally controlled shear-hosted lode style gold deposits are the main style of gold mineralisation in the Pickle Lake District.</li> </ul>
<i>Drillhole Information</i>	<ul style="list-style-type: none"> <li>• <i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:</i></li> <li>• easting and northing of the drillhole collar</li> <li>• elevation or RL (elevation above sea level in metres) of the drillhole collar</li> <li>• dip and azimuth of the hole</li> <li>• down hole length and interception depth</li> <li>• hole length.</li> </ul>	<ul style="list-style-type: none"> <li>• Drillhole location and other relevant details are tabulated in the Assay Drillhole Table.</li> <li>• Not applicable to the geophysical survey.</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• A minimum intercept length of 0.3 m applies to the historical data in the tabulated results presented in the main body of this release.</li> <li>• No cut-off grades were reported within this release from historical data.</li> <li>• No metal equivalent reporting has been applied.</li> <li>• Not applicable to the geophysical survey.</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• <i>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</i></li> <li>• <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drillholes have been angled at an appropriate direction and angle relevant to the anticipated orientation of the mineralisation and/or geology.</li> <li>• Not applicable to the geophysical survey.</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• <i>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 drillhole collar locations and appropriate sectional views.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Relevant diagrams have been included within the announcement.</li> <li>• Summaries of significant gold intercepts are also included in the body text of this report.</li> </ul>
<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>• All drill collar locations are shown within the announcement and all significant results are provided in this report.</li> <li>• The report is considered balanced and provided in context.</li> </ul>

Criteria	JORC Code explanation	Commentary
<p><b>Other substantive exploration data</b></p>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; <b>geophysical survey results</b>; 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.</li> </ul>	<ul style="list-style-type: none"> <li>Drilling has been conducted from the three pads due to logistical challenges, pads have been widely spaced. Further details will be reported in future releases once data is available.</li> <li>A high-resolution Aeromagnetic Radiometer, Radiometric, Matrix Digital VLF-EM Survey airborne geophysical survey was conducted by TerraQuest Limited over the entire Dorothy-Dobie claims and the Golden Patricia Mine areas.</li> <li>The Matrix VLF-EM system is a newly developed, light weight, digital, passive system that utilizes continent-wide communication VLF radio signals as a power source to energize ground conductors.</li> <li>The signals are received by 3 orthogonal coils and recorded independently from up to four VLF stations. Being fully digital, a full range of final outputs is possible including total field amplitude, vertical and planar ellipticities, tilt and azimuth to the transmitter separately for each frequency.</li> <li>The survey included High-Resolution Aeromagnetic, Horizontal Gradiometer, Radiometrics and Matrix Digital VLF-EM. It has extended more than 703 line-kilometres over the entire Dorothy-Dobie claim to provide detailed and complete coverage of this highly prospective, yet largely under-explored gold property.</li> <li>The previous survey over Dorothy-Dobie, undertaken by the Ontario Geological Survey (45 years ago) at a wide-spaced 200m line spacing and 120m elevation, is significantly less penetrative than this TerraQuest 50m N-S line spaced helicopter survey at a flight height of only 25-35m.</li> </ul>
<p><b>Further work</b></p>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> </ul>	<ul style="list-style-type: none"> <li>Infill and extensional drilling along strike and down dip, aimed at growing the resource is planned.</li> <li>The recent work has confirmed numerous exploration targets exist in the Dorothy-Dobie area and the company has high expectations to define significant gold resources through on-going drilling programs guided by geophysical methods.</li> </ul>