

## **DRILLING UNDERWAY AT LEO'S DAM NICKEL SULPHIDE TARGET PIONEER ACQUIRES CESSNA NICKEL SULPHIDE PROSPECT**

Perth, Western Australia, 25 March 2019: Pioneer Resources Limited ("Pioneer" or the "Company" (ASX: PIO)) advises that:

- **Drilling is underway at the Leo's Dam Prospect, approximately 2km NE of the Blair Nickel Mine, following-up the 2018 discovery of nickel sulphides - 22m at 1.02% Ni and 475ppm Cu - in drill hole GRRC038. Leo's Dam is one of 5 priority nickel sulphide targets within the Golden Ridge Project; and**
- **The Company has acquired the Cessna Project containing a standout nickel target located approximately 20km N of the Silver Swan Nickel Mine.**

Pioneer's nickel sulphide strategy will be advanced concurrently with exploration programmes at the Company's flagship Pioneer Dome Pegmatite Project, where mining at the Sinclair Caesium Deposit was recently completed. The second shipment of 1,600t pollucite was exported during February 2019.

### **Drilling at Golden Ridge: testing for extensions at Leo's Dam Ni\$ target.**

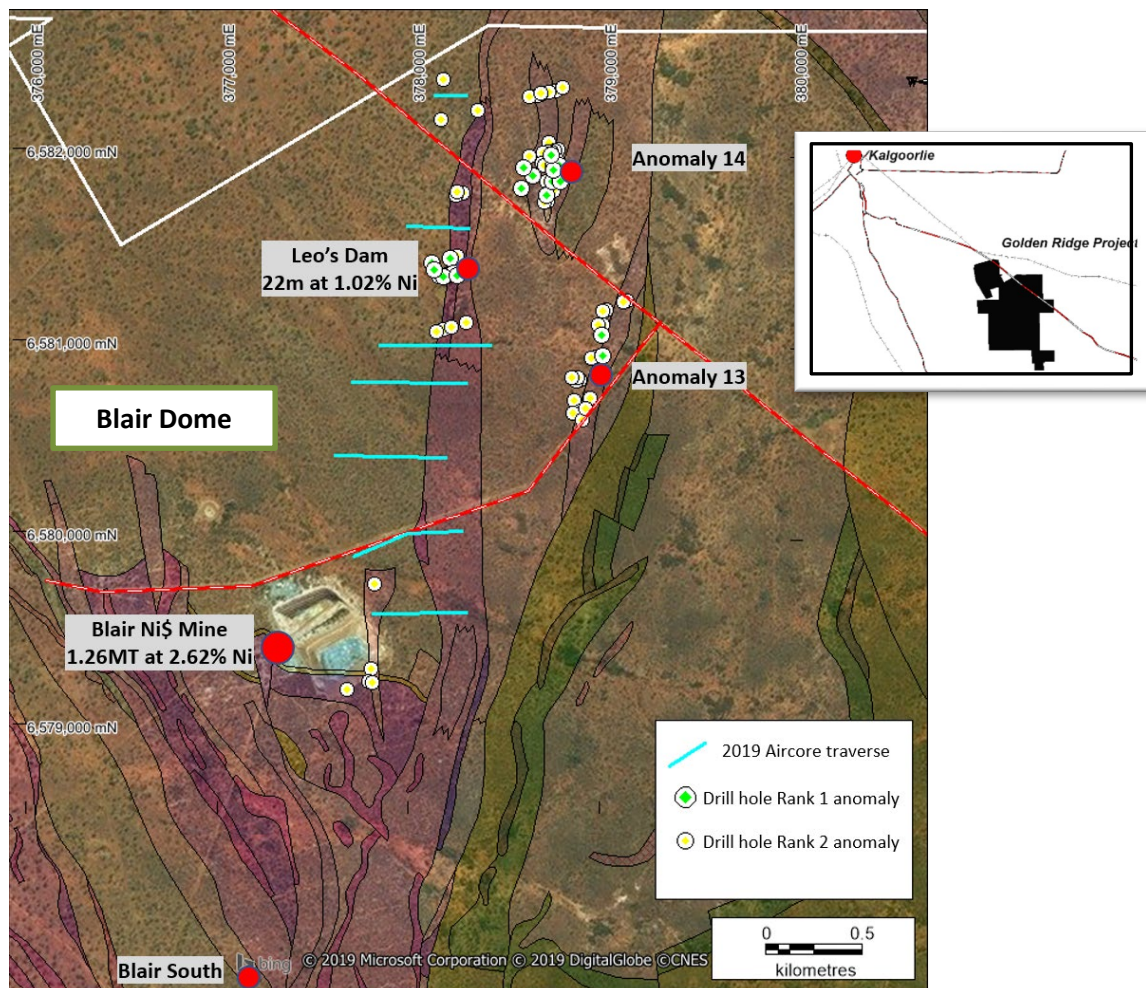
Aircore drilling, directed towards extending the nickel sulphide mineralisation identified, is in progress at the Leo's Dam target.

Hole GRRC038 was a successful test of a weathered rock geochemical target that was consistent with the generally held Kambalda nickel sulphide ("Ni\$") model. Aircore drilling north and south of GRRC038 (light blue traverse lines on Figure 1) is designed to generate additional knowledge about the target(s) for future reverse circulation and diamond core drilling.

The Company devised an innovative change to the geological model previously ascribed to the Golden Ridge Project (refer ASX release on 20 July 2015). This change proposed the existence of the Blair Ultramafic Dome with at least 12km of demonstrably prospective, basal ultramafic contact target zone outside of the immediate Blair Nickel Mine Deposit. The Blair Dome is analogous, both geologically and in size, with other ultramafic domes at Kambalda, Tramways and Widgiemooltha, which all host major nickel sulphide mines.

The Company believes that the intersection of NiS in GRRC038 has added validity to the revised Blair Dome Model, further demonstrating the Project's prospectivity.

The current aircore drilling programme, of approximately 80 holes, is expected to be completed by late March with the results and interpretation to be available by late April 2019.



**Figure 1:** Plan view of the Golden Ridge Project and the Blair Dome Structure, showing the location of the Blair NiS Mine box cut. Priority drill targets exist at Leo's Dam – where drilling is in progress, Anomalies 13 and 14, and the Blair South Prospect. This programme's aircore drill traverses are shown in light blue, with previously drilled, anomalous drill holes also shown.

Other priority NiS targets associated with the Blair Dome include Blair South, located 3km south of the Blair Mine, Anomaly 14, with NiS mineralisation and excellent litho-geochemistry, Anomaly 13 and Duplex Hill.

## Pioneer acquires Cessna Nickel Sulphide Prospect

The Cessna Prospect acquisition provides tenure which covers an intrusive mafic volcanic plug located between the Carr-Boyd (15km N) and Silver Swan Nickel Mines (20km S).

A data review for the project, including re-analysis of archived RAB samples for nickel by the vendor, has resulted in the identification of a standout single, coherent nickel target with a 700m strike length.

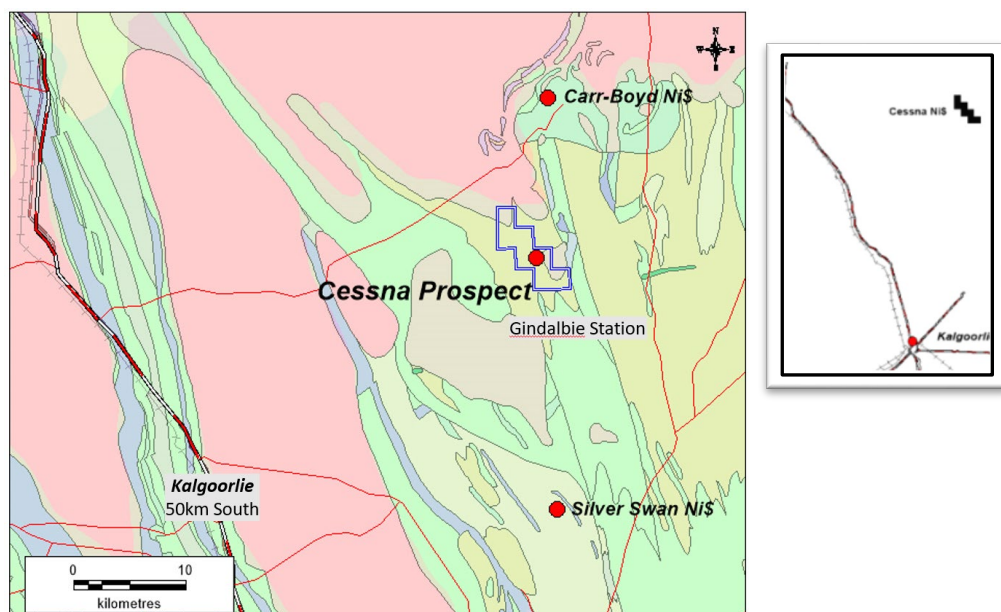
Terms of the acquisition, by which Pioneer may earn an 80% Participating Interest, include:

- The Vendor is Milford Resources Pty Ltd, ("Milford" is a company associated with prominent geochemist, Dr Nigel Brand)
- Reimburse Milford up to \$40,000 of receipted costs
- Issue Milford 3,313,012 shares (based on a value of \$58,000 and an issue price of \$0.0175)
- Pay the vendor \$20,625 as cash
- Incur \$250,000 of expenditure within 2 years of the date of signing the Agreement.

Should Pioneer earn its 80% Participating Interest, Pioneer will then sole-fund all Joint Venture expenditure until a decision to mine is made.

The Cessna Project adds to the Company's nickel sulphide portfolio, which now comprises Golden Ridge, the Fairwater Project in the Fraser Ranges, the Cessna Project and areas within the Pioneer Dome and Acra Projects.

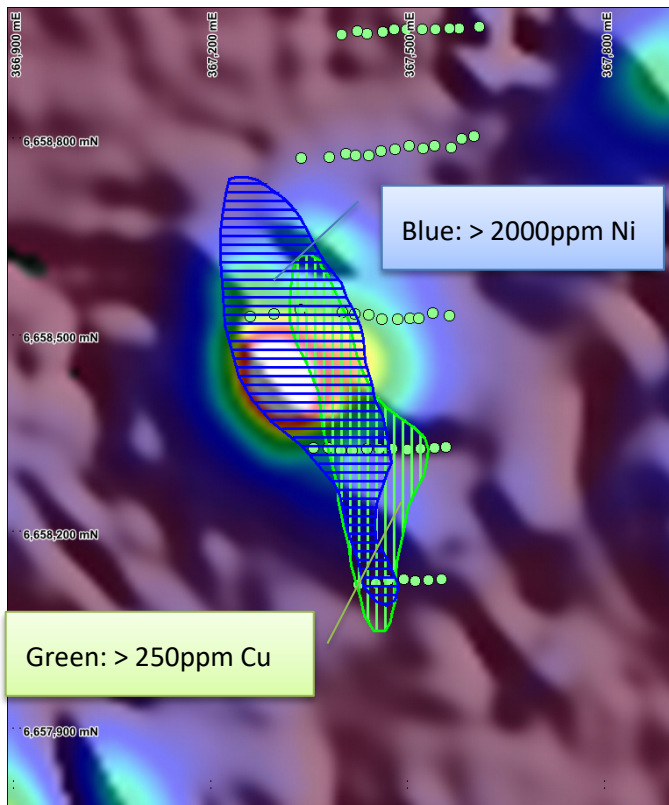
Planned work, in the second half of 2019, will include a test of the Cessna target using a deep penetrating ground EM system, with any conductors (which might include nickel sulphide mineralisation) then drilled.



**Figure 1:** Cessna Prospect is located between the Carr-Boyd and Silver Swan Nickel Mines, approximately 60km NE of Kalgoorlie, WA.

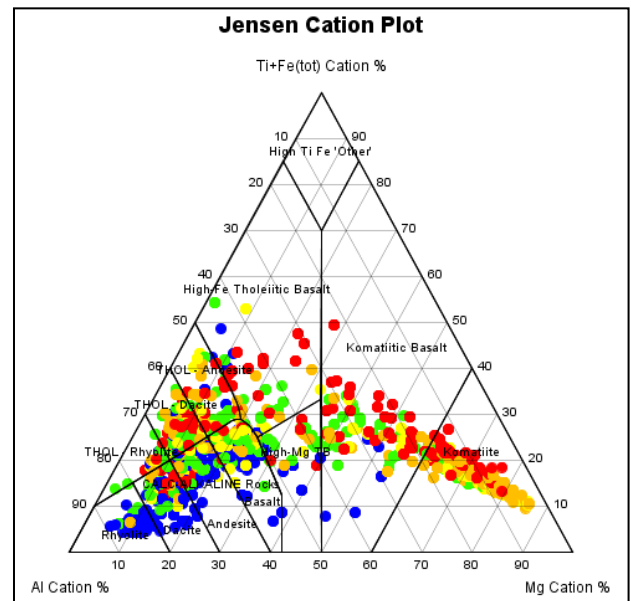


## Characteristics of the Cessna Nickel Sulphide Anomaly



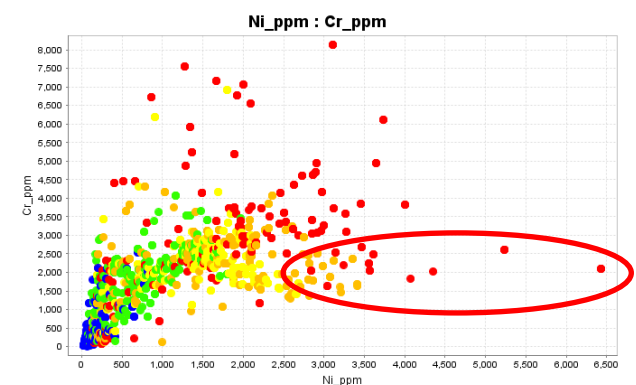
A 700m nickel and copper regolith anomaly, based on pXRF analysis of rotary air blast drill cuttings, is coincident with an intense magnetic spot anomaly – representing the presence of highly magnesian and ferruginous (mafic or ultramafic) rocks, that may host nickel sulphide (“NiS”) mineralisation.

The Silver Swan Mine, located approximately 20km south, is also associated with intense ‘spot’ magnetic anomalies.



The Jensen Cation Plot is useful to show the presence ultramafic (komatiite) rocks, which are the most common host for NiS in Western Australian.

Red komatiitic basalt data points, which are spectrally coloured by copper assay – a vector element for NiS mineralisation, are anomalous.



Plotting Ni against Cr (with points coloured as above by Cu) is used to indicate where the host rock composition is consistent with a NiS host environment. A positive result – within the oval - is: Low Cr, elevated Ni and Cu.

Pioneer Managing Director David Crook said;

*“The Company now holds a highly prospective portfolio of early stage and advanced nickel sulphide projects, including the suspended Blair Nickel mine, positioning the Company for an upturn in the nickel price.”*

Managing Director  
**Pioneer Resources Limited**

## About Pioneer Resources Limited

Pioneer is an active exploration company focused on key global demand-driven commodities. The Company operates a portfolio of strategically located lithium, caesium, nickel, cobalt and gold projects in mining regions in Western Australia, plus a high-quality lithium asset in Canada.

**Pioneer Dome Project and the Sinclair Caesium Mine:** In late 2016 Pioneer reported the discovery of Australia's first caesium (in the mineral 'pollucite') deposit. With mining complete, priority will move to the next caesium discovery.

Pollucite is a high value mineral and global supply is very constrained. It is a rare caesium bearing mineral that forms in extremely differentiated LCT pegmatite systems. The primary use of pollucite is in the manufacture of Caesium Formate brine used in high temperature/high pressure oil and gas drilling.

### Golden Ridge/Blair Dome Nickel Sulphide Project, WA

The Company also owns the closed Blair Nickel Sulphide Mine located between Kalgoorlie and Kambalda, WA, and surrounding ground.

At present, the Blair Dome Project, when compared to the other major nickel camps listed, has not been exhaustively explored. Results to date are very encouraging however, with a number of areas highlighted either by previous drilling that has intersected nickel sulphides, or positive litho-geochemistry, demonstrating strong nickel endowment potential along areas of the 12 kilometres strike

### Mavis Lake Lithium Project, Canada; Pioneer Dome Project, WA

Lithium has been classed as a 'critical metal' meaning it has a number of important uses across various parts of the modern, globalised economy including communication, electronic, digital, mobile and battery technologies; and transportation, particularly aerospace and automotive emissions reduction. Critical metals seem likely to play an important role in the nascent green economy, particularly solar and wind power; electric vehicle and rechargeable batteries; and energy-efficient lighting.

### Golden Ridge Cobalt Project, WA

Cobalt is a global demand-driven commodity, with demand expanding in response to its requirement in the manufacture of cobalt-based batteries in certain electric vehicles and electricity stabilisation systems (powerwalls). Other uses for cobalt include in the manufacture of super-alloys, including jet engine turbine blades, and for corrosion resistant metal applications.

#### Notes

1. Blair: Refer Company's announcements to ASX dated 18 November 2013 (Blair Resource Estimate), May 2014, 27 January 2015, 18 May 2015, 20 July 2015, 13 April 2017, 23 January 2018, 25 January 2018.
2. Further information is included in quarterly activity reports commencing in September 2008.

## Competent Person

*The information above that relates to the Company's Resources and Exploration Results is extracted from various ASX Announcements as listed in the References when Competent Persons consents were obtained. The Competent Persons' consents remain in place for subsequent releases by the Company of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent. The reports are available to review on the ASX website and on the Company's website at [www.PIOresources.com.au](http://www.PIOresources.com.au). The Company confirms that it is not aware of any new information or data that materially effects the information included in the original market announcement, and, in the case of estimates of Mineral Resources, that all market assumptions and technical assumptions underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.*

### **Caution Regarding Forward Looking Information**

This Announcement may contain forward looking statements concerning the projects owned or being earned in by the Company. Statements concerning mining reserves and resources may also be deemed to be forward looking statements in that they involve estimates based on specific assumptions.

Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward-looking statements as a result of a variety of risks, uncertainties and other factors. Forward-looking statements are inherently subject to business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause the Company's actual results to differ materially from those expressed or implied in any forward-looking information provided by the Company, or on behalf of, the Company. Such factors include, among other things, risks relating to additional funding requirements, metal prices, exploration, development and operating risks, competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes.

Forward looking statements in this document are based on the Company's beliefs, opinions and estimates of the Company as of the dates the forward-looking statements are made, and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

There can be no assurance that the Company's plans for development of its mineral properties will proceed as currently expected. There can also be no assurance that the Company will be able to confirm the presence of additional mineral deposits, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of the Company's mineral properties. Circumstances or management's estimates or opinions could change. The reader is cautioned not to place undue reliance on forward-looking statements.