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# **AUSTRALIA'S FIRST POLLUCITE EXTRACTION COMMENCES**

**Perth, Western Australia: 12 December 2018:** Pioneer Resources Limited ("Pioneer" or the "Company") (ASX: PIO) is pleased to provide an update for its 100%-owned Sinclair Mine, an operation to extract the caesium mineral pollucite, located 40km north of Norseman, Western Australia.

## **Mining Update**

- ➤ The first block of pollucite has been extracted and stockpiled. Approximately 600t¹ of pollucite was extracted from the 297.5m RL flitch, (with a height of 2.5m (refer photograph 1 below));
- ➤ The pollucite model has mineralisation occurring between the 297.5m RL and the 282.5m RL floor (a vertical height of 15m below the current flitch crest);
- ➤ Over 450,000 BCM² or 95% of the planned Stage 1 Sinclair Mine volume has now been moved.



**Photograph 1 - 11<sup>th</sup> December 2018**: looking north at the 297.5 flitch face, with pollucite (POL) marked out for excavation.

Pioneer Managing Director, Dave Crook, said:

"Mining is at a crucial and exciting stage as we start to unearth Australia's first deposit of pollucite, which will take approximately 3 more weeks."

Progress at the Sinclair Mine remains on time and on budget, with the first pollucite due to leave site during January 2019.



**Photograph 2 – Pollucite in the 297.5m RL Face:** The translucent grey pollucite is commonly cross-cut with ribbons of the purple lithium-rubidium mineral lepidolite.

**Pioneer Dome Project and the Sinclair Zone Caesium Deposit:** In late 2016 Pioneer reported the discovery of Australia's first caesium (in the mineral 'pollucite') deposit. Pollucite is a high value rare caesium mineral that forms in extremely differentiated LCT pegmatite systems. Global supply is very constrained. The primary use of caesium is in Caesium Formate brine used in high temperature/high pressure oil and gas drilling.

The pollucite is overlain by thicknesses of microcline, a potassium feldspar, and co-exists with the lithium minerals petalite and lepidolite.

The Company recently provided a revised Mineral Resource Estimate (ASX 8 November 2018). The Mineral Resource Estimate is **7,110t of the caesium ore 'pollucite' with a grade of 16.4% Cs₂O,** as summarised by category in Table 1 below.

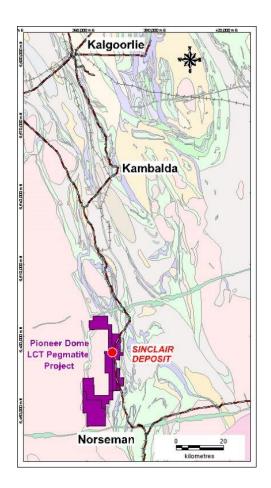
Table 1. Mineral Resource Summary by Category: Sinclair Caesium Deposit

Classification	Tonnes (t)	Cs <sub>2</sub> O (%)
Measured	6,340	17.5
Indicated	490	5.3
Inferred	280	11.4
Total	7,110	16.4

Note: Appropriate rounding applied

### Notes:

- 1. The stockpile tonnage is estimated by multiplying the BCM by the specific gravity of the rock.
- 2. BCM means bank cubic metres and is an estimate of the in-situ volume of rock moved. The estimate is made by multiplying the count of truck loads by the truck's estimated carrying capacity. The estimated volume is corroborated by a monthly survey of the mine.



**Figure 1**. Location diagram for the Pioneer Dome Project, and Sinclair Deposit, located approximately 40km north of Norseman, WA.

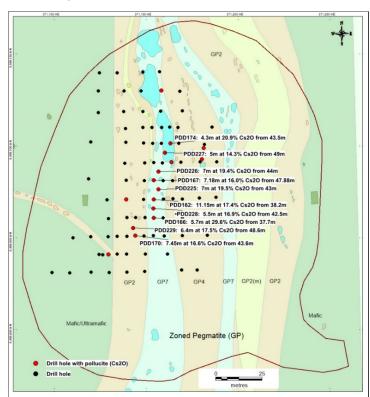


Figure 2. Drill hole Plan and interpreted geology of the Sinclair Caesium Deposit

#### **About Pioneer Resources Limited**

Pioneer is a new miner and active explorer focused on key global demand-driven commodities. The Company operates a portfolio of strategically located lithium, caesium, potassium ("alkali metals"), nickel, cobalt and gold projects in mining regions in Western Australia, plus a high-quality lithium asset in Canada. Drilling is in progress, or has been recently completed, at each of these Projects.



Core from PDD225. Significant pollucite Intersected over 7m at 19.5% Cs₂O from 43m

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**Cobalt: Golden Ridge Project, WA:** Cobalt demand is expanding in response to its requirement in the manufacture of cobalt-based lithium batteries in certain electric vehicles and electricity stabilisation systems (powerwalls). Other uses include in super-alloys, including jet engine turbine blades, and for corrosion resistant metal applications.

**Nickel: Blair Dome/Golden Ridge Project:** The price for nickel is steadily improving. The Company owns the closed Blair Nickel Sulphide Mine located between Kalgoorlie and Kambalda, WA, where near-mine target generation is continuing. The Company recently announced a significant new nickel sulphide drilling intersection at the Leo's Dam Prospect, highlighting the prospectivity of the greater project area.

Lithium: Mavis Lake 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.

### References

Pioneer Dome: Refer Company's announcements to ASX dated 19 May 2016, 27 July 2016, 28 August 2016, 1 September 2016, 4 October 2016, 17 October 2016, 14 November 2016, 2 December 2016, 13 December 2016, 13 January 2017, 24 January 2017, 23 February 2017, 20 March 2017, 22 March 2017, 20 May 2017, 21 February 2018, 19 April 2018, 20 May 2018, 25 July 2018, 26 July 2018, 30 July 2018, 30 August 2018, 8 November 2018 (Mineral Resource update), 28 November 2018.

## Competent Person' Statement

The information above that relates to the Company's Resources and Exploration Results is extracted from various ASX Announcements as listed in the References, including released on 8 November 2018 entitled "Mineral Resource Update for the Sinclair Caesium Zone" and for which 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 <a href="https://www.PlOresources.com.au">www.PlOresources.com.au</a>. 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 document may contain forward looking statements concerning the projects owned 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.