

## Pioneer Resources Limited (ASX: PIO)

### QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDED 31 MARCH 2017

28 April 2017, Pioneer Resources Limited ("Pioneer" or the "Company" (ASX: PIO)) is pleased to update the market with a summary of activities undertaken during the March Quarter of 2017.

#### HIGHLIGHTS

##### **PIONEER DOME Lithium Caesium Tantalum Project – Eastern Goldfields, WA**

- 22 RC holes for 1,447m drilling completed;
- Pollucite Mineral Resource Statement for Sinclair Zone: 10,500t of pollucite at 17.1% Cs<sub>2</sub>O;
- Mine plan and Project Management Plan commenced;
- Metallurgical testing successful - caesium formate brine produced without difficulty;
- Extraction of a 5,000t pollucite bulk sample planned for second half of 2017;
- Battery grade lithium carbonate produced from Pioneer Dome lepidolite using the L-Max® process;
- Project very prospective for further caesium discoveries and significant spodumene mineralisation; and
- Further caesium-focused drilling to resume in early May, 2017

##### **MAVIS LAKE Lithium Project – Ontario, Canada**

Fairservice (PEG006) drilling intersected multiple thick zones of spodumene – the best to date - including:

- MF17-39: 17.90m at 1.47% Li<sub>2</sub>O from 80.00m;
- MF17-40: 12.85m at 1.16% Li<sub>2</sub>O from 80.05m;
- MF17-49: 26.30m at 1.70% Li<sub>2</sub>O from 111.9m;  
including 7.70m at 2.97% Li<sub>2</sub>O from 130.5m;
- MF17-50: 16.55m at 1.45% Li<sub>2</sub>O from 74.55m;  
and 23.10m at 1.36% Li<sub>2</sub>O from 122.00m.
- Planning for the next phase of drilling underway, likely during the September quarter.

##### **BLAIR DOME Nickel and Cobalt Project (Includes Blair Nickel Mine) – Eastern Goldfields, WA Nickel Sulphide Strategy**

- Drilling to test new nickel sulphide targets adjacent to the closed Blair Nickel Mine with pre-collared diamond drill holes is underway.

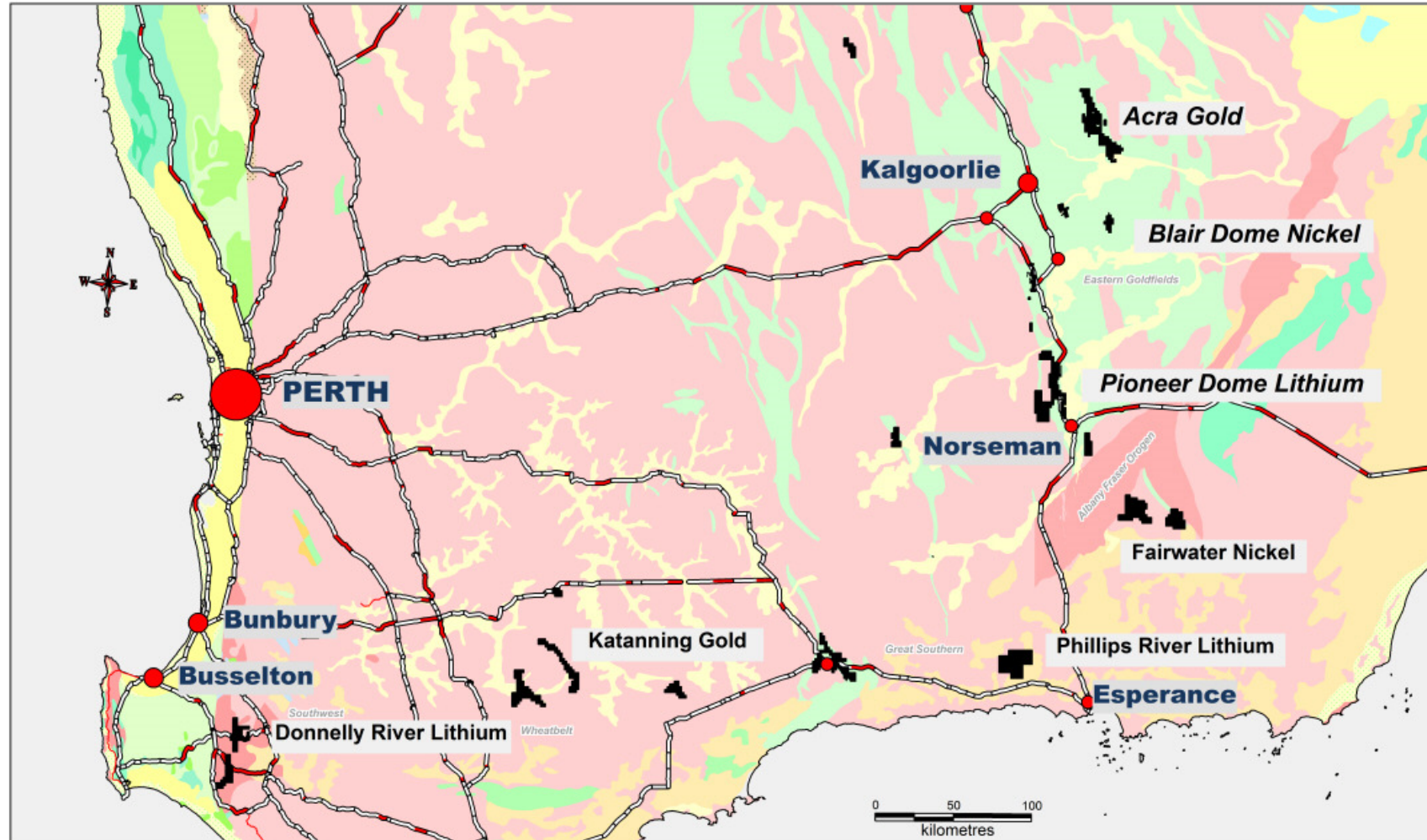
##### **Cobalt Strategy**

- Review of the Project's drilling database identified multiple, broad zones of high grade cobalt mineralisation; and
- The Company will release details of its strategy to maximise value from this asset during the June quarter.

#### CORPORATE

At 31 March 2017 the Company had cash reserves of \$3.43 million and no debt.

## Pioneer Resources Limited Western Australian Tenement Location Map



**Figure 1:** Pioneer Resources Limited Western Australian Tenement Location Plan. Further tenement information is listed in Appendix 1.

## EXPLORATION REVIEW: MARCH 2017.

### *Pioneer Dome Project (Including the Sinclair Caesium Deposit).*

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*Pioneer 100%, Lithium, Caesium, Tantalum, Nickel Sulphide.*

**The Pioneer Dome** lithium-caesium-tantalum (“LCT”) Project is located approximately 130km south of Kalgoorlie, and 200km north of Esperance, in WA. The project is close to relevant infrastructure, with the Goldfields-Esperance Highway, rail, gas and water passing through the tenements. The Project consists of approximately 341km<sup>2</sup> of tenements, comprising six exploration licences. One mining lease, covering the Sinclair Caesium Zone, was pegged during the quarter.

#### **WORK COMPLETED: TARGET GENERATION & EXPLORATION DRILLING**

- 1,102 infill soil samples taken over PEG008 South, the Hook, PEG003 and PEG004 highlight prospectivity of targeted pegmatites;
- 22 RC holes for 1,446m of drilling completed to test the margins of the Sinclair Zone;
- Detailed fact mapping demonstrates the PEG008 system (which includes the Sinclair Zone) is over 2.4 km long - drilling has tested 30% of the strike length, intersecting lithium and caesium minerals; and
- With mapping complete at PEG004 and PEG008, the next target to be mapped is PEG003.

Caesium intersections >10% Cs<sub>2</sub>O from the southern flank of the Sinclair Zone (shown on figure 3) included:

- **PDR093: 2m at 10.4% Cs<sub>2</sub>O from 48m**
- **PDR094: 3m at 11.53% Cs<sub>2</sub>O from 49m**

Pollucite intersections and strong mineralisation vectors remain open or untested both north and south of the Sinclair Zone. Drilling is scheduled to re-commence within the first week of May 2017.

#### **SINCLAIR ZONE: THE WORLD’S THIRD LARGEST KNOWN POLLUCITE DEPOSIT**

In October 2016, the Company discovered a new pollucite deposit. Pollucite is a rare caesium mineral that forms in extremely differentiated LCT pegmatite systems. The world’s largest pollucite deposit is the Bernic Lake/Tanco Mine in Canada (where pollucite mining for caesium formate production commenced in 1997 - mining is reported to have been suspended since 2015). The second significant deposit is the Bikita Mine in Zimbabwe, where small volumes of pollucite are sporadically sold into the caesium chemicals business. Supply of pollucite is very constrained, and therefore the announcement of the discovery of the Sinclair Pollucite Zone has prompted interest from a number of international parties interested in offtake.

#### **Mineral Resource and Mine Planning**

A Mineral Resource estimation was announced on 22 March 2017. The Resource estimate was completed by mining consultant Trepanier Pty Ltd.

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

Classification	Tonnes (t)	Cs <sub>2</sub> O (%)
Measured	10,500	17.1
Total	10,500	17.1

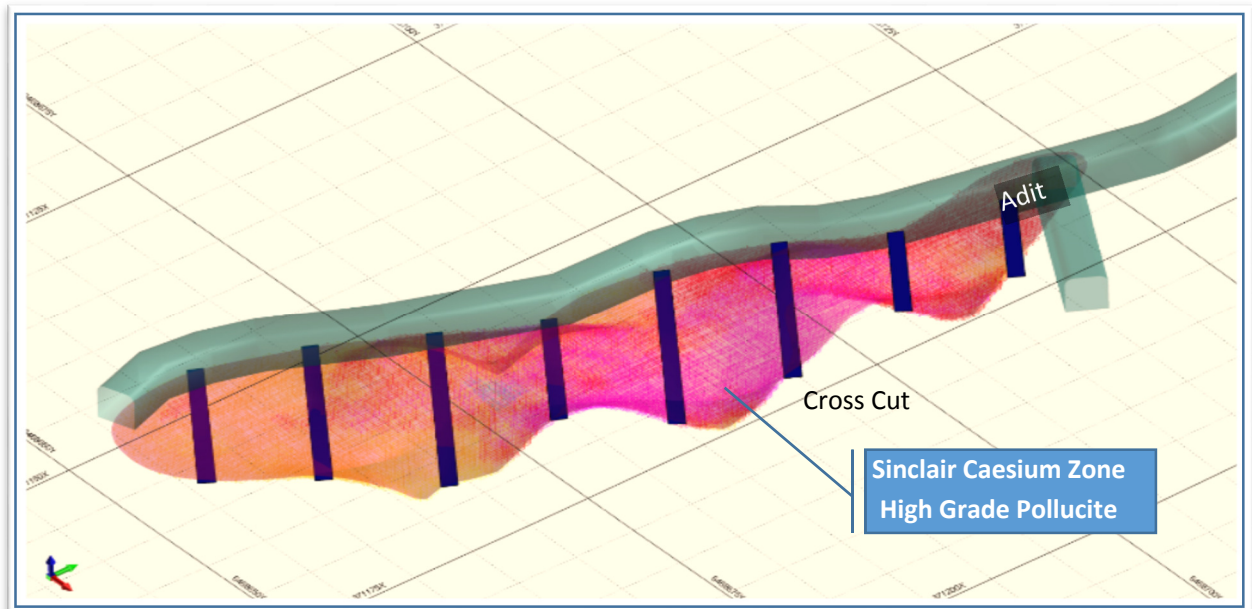
Note: Appropriate rounding applied

Other key steps in progress include:

- Mining Lease M26/665 application pegged;
- Mining Studies commenced. Consulting group **Mining Plus** engaged to develop Mine Plan to extract the the bulk sample, including a project management plan and safety management system (refer Figure 2);

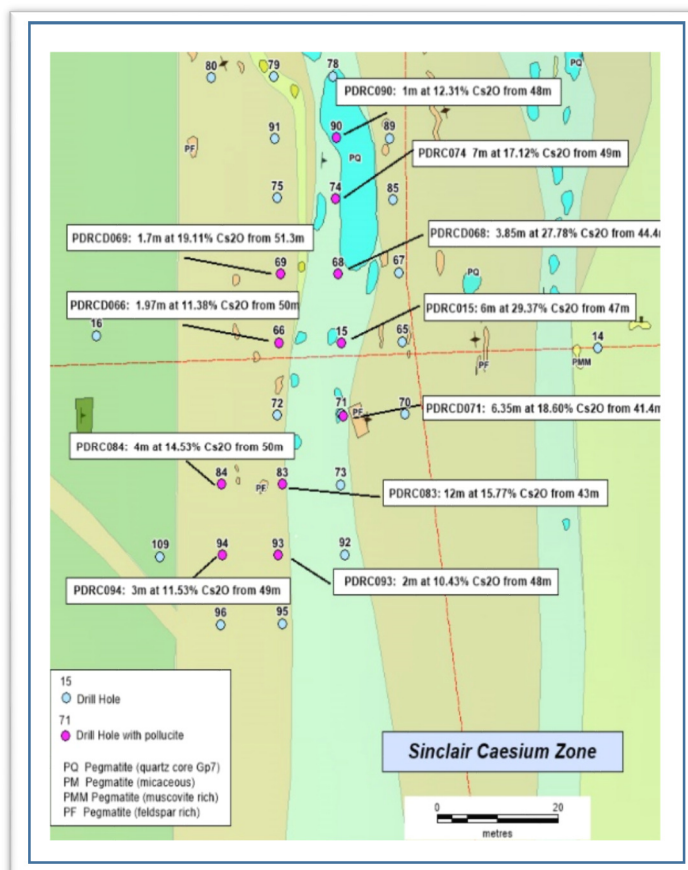
- Metallurgical R&D on-going: Consulting group **Strategic Metallurgy** engaged to study caesium extraction from pollucite and the manufacture of Caesium Formate brine;
- Baseline studies including a botanical survey completed;
- Excess Tonnage approval received – this approval permits up to 15,000t to be excavated subject to the approval of the Mine Plan by the DMP; and
- Discussions with potential off-take parties is progressing satisfactorily.

Initially, the Company is planning to extract a bulk sample of 5,000t of high grade pollucite for metallurgical test work during the second half of 2017.



**Figure 2 (above). Mine Design Version 1.**

Pioneer has engaged Mining Plus to design a method to extract the high value pollucite mineralisation from the Sinclair Zone. The proposal shown illustrates the mineralisation (oranges (medium grade) and pinks (high grade)), the proposed adit (green) and initial cross-cuts (blue) from which stops will be developed.



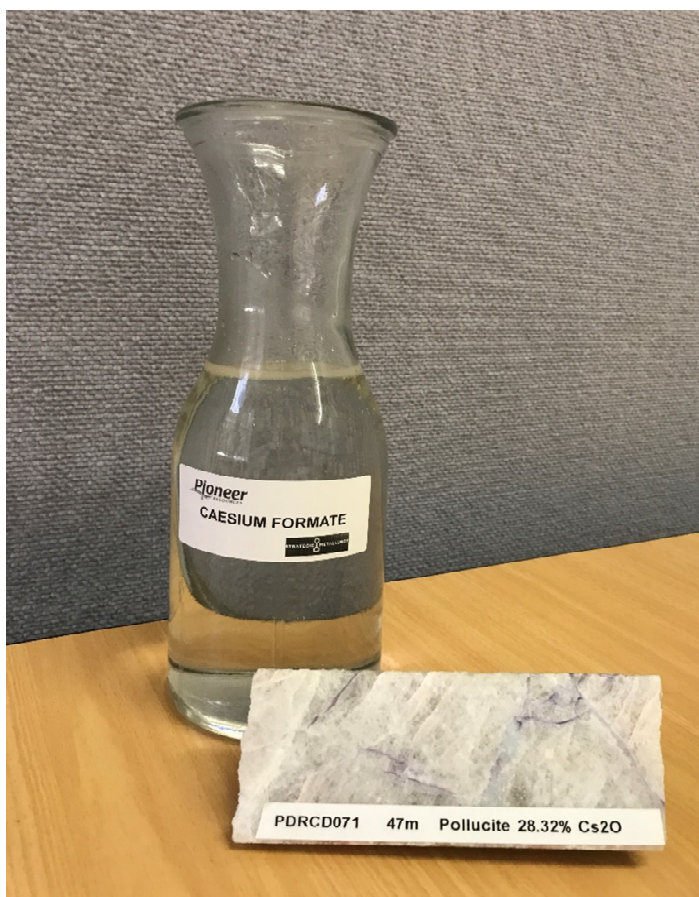
**Figure 3 (left). Drill Hole Collar Locations at the Sinclair Caesium Zone.** Pollucite has been intersected in marked holes. Drilling, commencing in late April, will test for extensions in both a northerly and southerly direction.



### ***Pollucite Metallurgy and Caesium Formate Research and Development***

The metallurgical programme is assessing the amenability of pollucite from the Sinclair Zone to have caesium extracted and, initially, for the production of Caesium Formate brine.

The principal use for pollucite is in the manufacture of Caesium Formate brine, a high density fluid used in high temperature/high pressure oil and gas drilling. The dominant Caesium Formate manufacturer and dealer is Cabot Corporation (NYSE: CBT), owner of the Bernic Lake/Tanco Mine. Caesium Formate helps deliver higher production rates (acting as a lubricant), is non-corrosive and is an environmentally-friendly, benign chemical when compared to alternatives. Caesium in pollucite is not radioactive. (Refer to Downs, J., et al)



**Photo 1.** HQ diamond core sample of high grade pollucite beside approximately 1 litre of caesium formate brine, manufactured from Sinclair Zone pollucite, with a specific gravity of 2.12g/cc.

### **LITHIUM-FOCUSED EXPLORATION**

#### ***Spodumene Strategy***

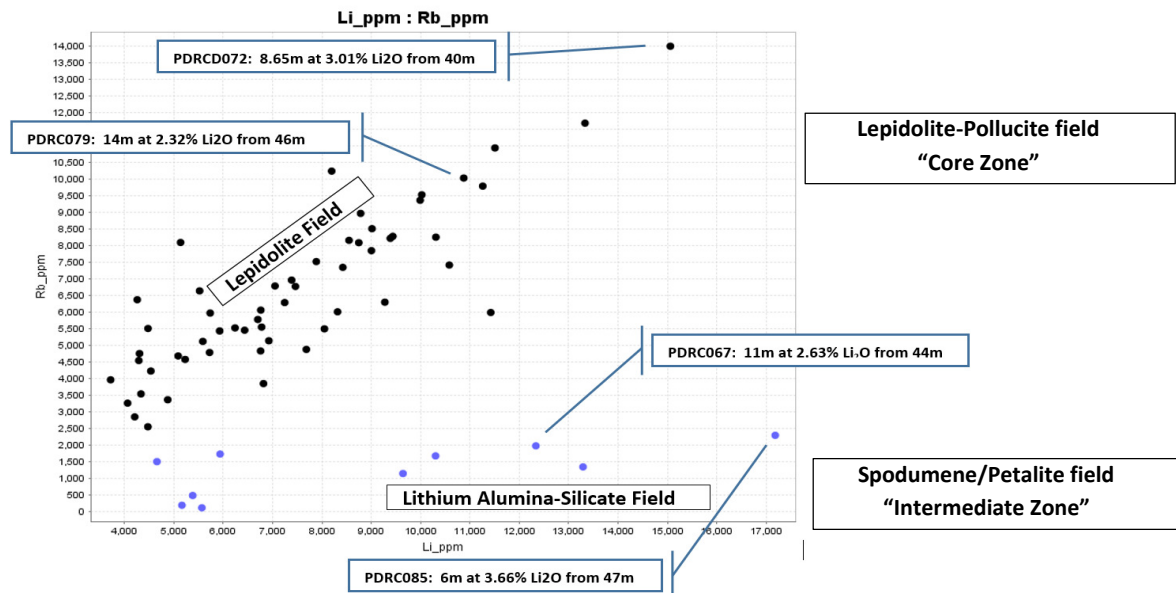
Because of the mineralogy intersected to date, the Company believes the Pioneer Dome Project is very prospective for the discovery of a significant spodumene deposit. According to the well-documented geological model for differentiated LCT pegmatites, spodumene occurs within the “Intermediate Zone”. The discovery of the spodumene system is seen as the major value driver for the project, and will be a focus for future drilling. Lithium-bearing alumina-silicates, which include spodumene and/or petalite, are evident in two areas adjacent to the Sinclair Zone. To date, the thickest intersection is 11m at 2.63% Li<sub>2</sub>O.

Lithium Alumina-Silicate (includes spodumene and/or petalite) drilling intersections include:

- **PDRC067: 11m at 2.63% Li<sub>2</sub>O from 44m**
- PDRC085: 6m at 3.66% Li<sub>2</sub>O from 47m
- PDRC102: 6m at 1.16% Li<sub>2</sub>O from 30m
- PDRC059: 3m at 2.85% Li<sub>2</sub>O from 38m
- PDRC076: 5m at 2.22% Li<sub>2</sub>O from 47m

Geochemically, the different lithium mineralisation styles (spodumene-dominated vs lepidolite-dominated) are readily distinguishable, as shown in graph 1 below. Geologically, the different styles of lithium mineralisation occur within different zones of the LCT pegmatite system.

The geological model for LCT pegmatites recognises 9 zones using nomenclature developed at the Bernic Lake Mine. Mapping the zones geologically and geochemically will enable future drilling to hone into the more likely spodumene zones.



**Graph 1:** A simple plot of Pioneer Dome drilling data showing the geochemical segregation of lithium bearing alumina-silicates (spodumene/petalite) from lithium-bearing lepidolite. This is being used to vector drilling into areas that are more prospective for spodumene mineralisation.

### Lepidolite Development Strategy

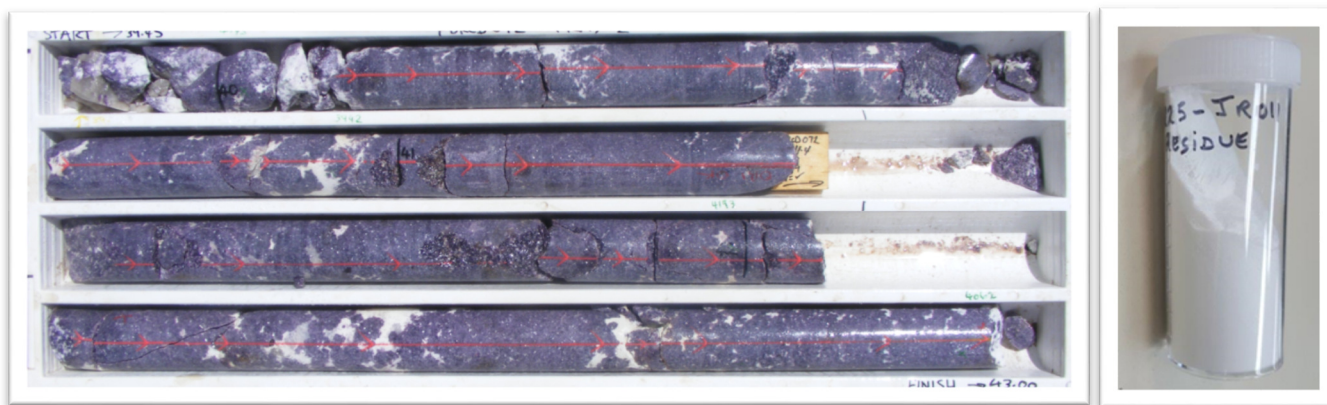
Lepidolite mineralisation from the Pioneer Dome Project was studied for suitability for the L-Max® process. Highlights of this study included:

- **High specification battery grade lithium carbonate grading 99.7% produced using L-Max® technology;**
- **L-Max® reached 93.9% lithium extraction and 93.3% caesium extraction from the flotation concentrate, with estimated lithium recovery to the final lithium carbonate product of 90%;**

The Company's decision to participate in the L-Max® business follows drilling that returned very strong zones of high-grade lepidolite (\* and mixed lepidolite with petalite/pollucite) intersections adjacent to the Sinclair Caesium Zone, including:

- |  |  |
|--|--|
| • PDRCD015: 7m at 1.52% Li <sub>2</sub> O from 52m         | • <b>PDRCD079: 14m at 2.32% Li<sub>2</sub>O from 46m</b> |
| • <b>PDRCD070: 12m at 2.22% Li<sub>2</sub>O from 44m</b>   | • PDRCD082: 11m at 1.88% Li <sub>2</sub> O from 53m*     |
| • <b>PDRCD073: 13m at 2.13% Li<sub>2</sub>O from 39m</b>   | • PDRCD090: 8m at 2.62% Li <sub>2</sub> O from 51m       |
| • PDRCD077: 13m at 1.89% Li <sub>2</sub> O from 52m        | • <b>PDRCD091: 13m at 2.03% Li<sub>2</sub>O from 55m</b> |
| • PDRCD069: 13.00m at 1.57% Li <sub>2</sub> O from 45.25m* | • PDRCD093: 11m at 1.62% Li <sub>2</sub> O from 43m      |
| • PDRCD071: 12.95m at 1.81% Li <sub>2</sub> O from 43.4m*  | • PDRCD095: 6m at 2.95% Li <sub>2</sub> O from 49m       |
| • <b>PDRCD072: 8.65m at 3.01% Li<sub>2</sub>O from 40m</b> | • PDRCD109: 10m at 1.24% Li <sub>2</sub> O from 40m*     |

NB. These samples are not from areas subject to the Lepidico Joint Venture Agreement.



**Photograph 2 and 2a: High grade lepidolite** in drill core from PDRCD072, which assayed 8.65m at 3.01%  $\text{Li}_2\text{O}$  from 40m, and Lithium Carbonate in the phial extracted from Pioneer Dome lepidolite by the L-Max® process.

### **Lepidico and the L-Max® Process**

The Company entered in to a Farm-in Agreement with Lepidico Ltd (ASX:LPD) (“**Lepidico**”) to advance the PEG009 Lepidolite target in February (ASX announcement 22 February 2017). The Farm-in provides Pioneer with a solution to unlock the significant potential Lepidolite value at Pioneer Dome, a mineral that occurs in the “Core Zone” of differentiated LCT pegmatites.

Key terms of the Farm-in Agreement include;

- Farm-in agreement for Lepidico to earn a 75% interest into the PEG009 Lepidolite Prospect only;
- Lepidico to drill outcropping PEG009 lepidolite targets defining at least 500,000t grading 1.2%  $\text{Li}_2\text{O}$  in lepidolite within 2 years, sufficient to feed Lepidico’s proposed Phase 1 L-Max® Plant for 5 years.

The initial joint venture area is approximately 2% of the total Pioneer Dome LCT Project area of 338  $\text{km}^2$ .

The joint venture is restricted to lepidolite and minerals able to be treated by the L-Max® process, sourced from the PEG009 Prospect. The agreement provides for the addition of other lepidolite targets at Pioneer’s discretion as the joint venture advances successfully.

Under the JV terms Pioneer specifically retains 100% of pollucite and spodumene mineralisation. Lepidico is advancing an extractive hydrometallurgical research and development project referred to as the L-Max® process, which produces lithium carbonate and various chemical co-products directly from lepidolite. Lepidolite is an important raw material used in the manufacture of lithium chemicals in China.

### **Work Completed at the PEG009 Lepidolite Prospect**

Mapping at PEG009 has identified two lepidolite-mineralised pegmatites, and rock chips have returned:

- at PEG009A - values up to 3.94%  $\text{Li}_2\text{O}$ ; and
- at PEG009B - values up to 3.84%  $\text{Li}_2\text{O}$ .

Rock chips are also anomalous with caesium.

## Mavis Lake and Raleigh Projects

*Pioneer Option to earn up to 80%. Lithium.*

The Mavis and Raleigh Lithium Projects are situated 19 and 80 kilometres respectively east from the town of Dryden, Ontario, Canada (Figure 4).

A C\$1 million budget has been allocated across the Mavis and Raleigh spodumene projects.

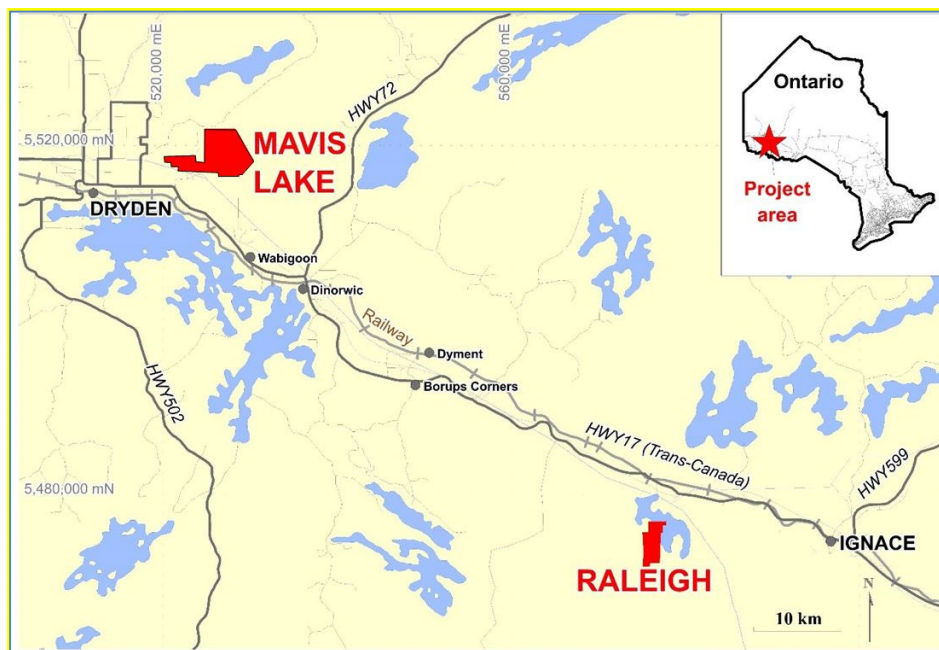
### HIGH GRADE SPODUMENE INTERSECTED AT THE FAIRSERVICE (PEG006) PEGMATITE INCLUDED:

- MF17-39: 17.90m at 1.47%  $\text{Li}_2\text{O}$  from 80.00m;
- MF17-40: 12.85m at 1.16%  $\text{Li}_2\text{O}$  from 80.05m;
- **MF17-49: 26.30m at 1.70%  $\text{Li}_2\text{O}$  from 111.9m**  
including 7.70m at 2.97%  $\text{Li}_2\text{O}$  from 130.5m; and
- MF17-50: 16.55m at 1.45%  $\text{Li}_2\text{O}$  from 74.55m  
and 23.10m at 1.36%  $\text{Li}_2\text{O}$  from 122.00m.

### DETAILS OF THE DRILLING PROGRAMME

During the quarter Pioneer, in conjunction with its strategic partner International Lithium Corp. ("ILC") (TSX Venture: ILC.V), conducted its maiden drilling programme at the Mavis Lake Project, which consisted of;

- 4 holes for 698m at the Fairservice (PEG006) Prospect;
- 1 hole for 68m at PEG006.5; and
- 7 holes for 539m at PEG018.



**Figure 4.** Location of Raleigh and Mavis Lithium Projects, Northwest Ontario, Canada.

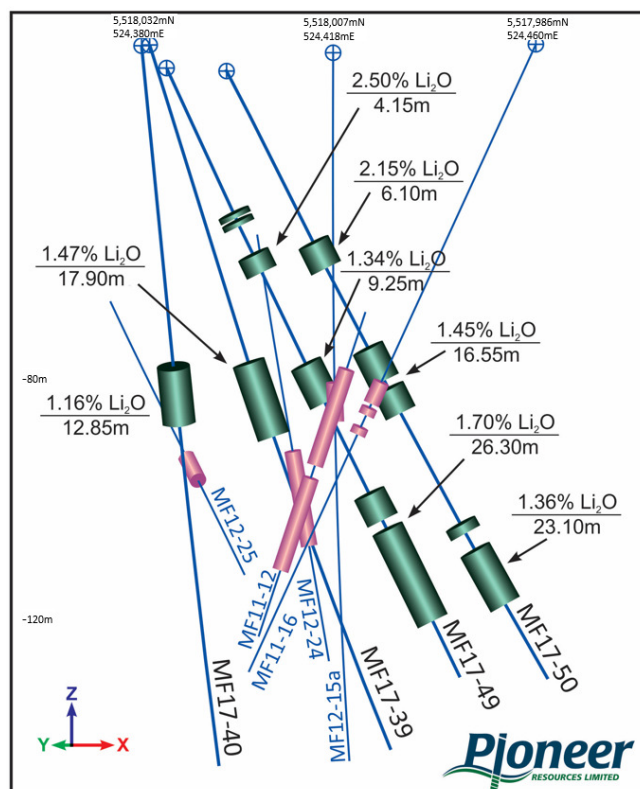
### Fairservice (Peg006) Target Area

Previous drilling completed in 2011 by ILC included the stand-out hole MF-11-12, which intersected two intervals of well-mineralised, spodumene-bearing pegmatite, and returned 16m at 1.53%  $\text{Li}_2\text{O}$  from 125m and a further 26.25m at 1.55%  $\text{Li}_2\text{O}$  from 152m down-hole (approximately 100m vertically below surface).

The 2017 drilling programme confirmed the presence of multiple, well mineralised spodumene-bearing pegmatite lenses. The four step-out holes completed tested the orientation of mineralisation previously

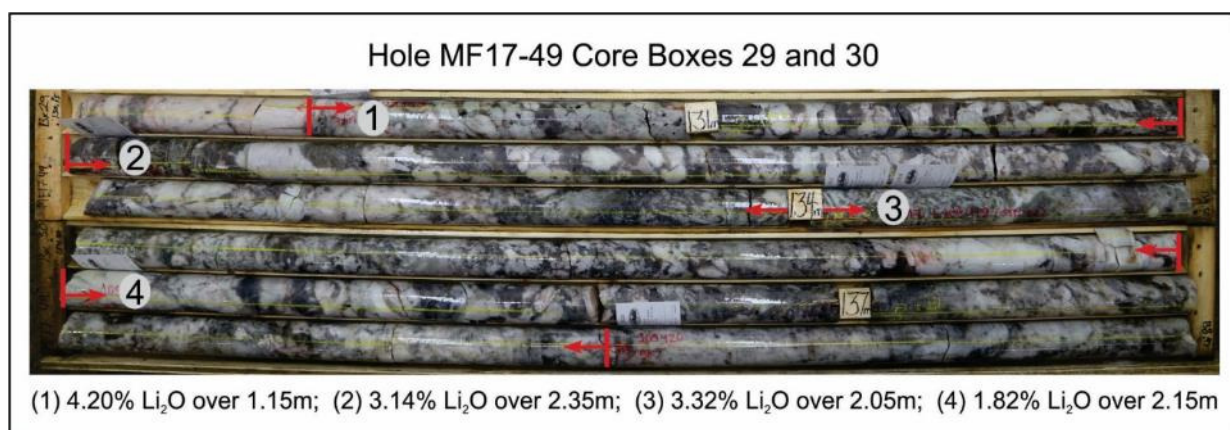


intersected in MF-11-12. All four holes intersected spodumene-bearing pegmatites of significant thickness, and demonstrated continuity with mineralisation in drill holes MF-11-12 and MF-12-24 from the 2011 and 2012 ILC drilling programmes. (Refer to Figure 5).



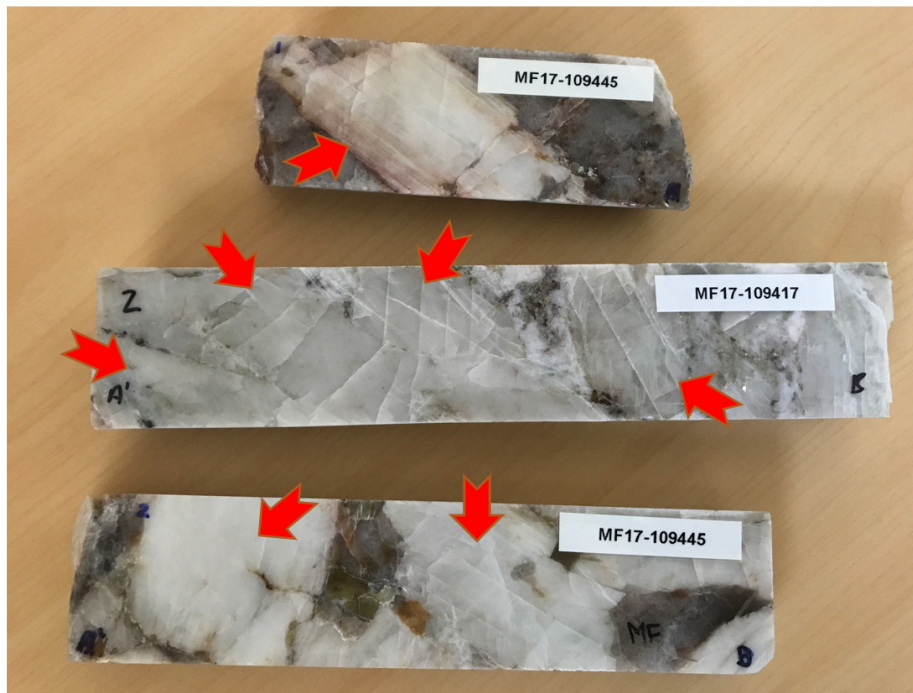
**Figure 5:** Oblique section looking NNE through the Fairservice (PEG006) Prospect. The Image shows the 2017 pegmatite intersections with assay results (green cylinders) and pre-existing intersections (pink cylinders).

NB. All intersections reported are measurements of the 'down-hole' length, which may be longer than the actual true width.



**Photograph 2:** High Grade Lithium Pegmatite in hole MF17-49. This intersection assayed 26.30m at 1.70%  $\text{Li}_2\text{O}$ .

The two intersections in MF17-49 and MF17-50 represent previously unrecognised pegmatites, and are amongst the widest and highest grade intersections encountered in the Project to date. Hole MF17-49 returned **26.30m of 1.70%  $\text{Li}_2\text{O}$  from 111.9m, including 7.70m of 2.97%  $\text{Li}_2\text{O}$** , which included a sample of 1.15m grading 4.20%  $\text{Li}_2\text{O}$ , or >50% spodumene content (Photograph 2.)



**Photograph 3:** Spodumene megacrysts from 2017 drill holes MF-17-49 and MF-17-50..

### **Pegmatite 18 Target Area**

Seven holes at PEG018 intersected spodumene pegmatites with thicknesses between 1.5m and 9.85m. The thickest intersection, at 9.85m, is present in the southern-most drill hole, located 115 metres down dip from the PEG018 outcrop and 46m vertically below surface.

Pegmatite 18 remains open to the East, West and at depth. Intersections included:

- MF-17-42: 5.4m at 1.04 % Li<sub>2</sub>O from 9.85m
- MF-17-43: 5.0m at 1.29 % Li<sub>2</sub>O from 10m
- MF-17-45: 4.7m at 1.50 % Li<sub>2</sub>O from 38.5m

\* all intersections reported are measurements of the 'down-hole' length, which may be longer than the actual true width.

### **OUTLOOK**

Following the receipt of the very encouraging assay results from the Fairservice Prospect the Joint Venture is preparing for further drilling at the Mavis Lake Prospect. Preparation for this programme include:

- modelling the pegmatites for orientation and drill hole planning;
- mapping of litho-geochemical anomalies and areas where the pegmatites are projected to approach the surface, and
- field checking proposed drill sites for access.

The next phase of drilling is anticipated to commence in the northern summer field season, when access tracks are dry.

## Other Western Australian Projects

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### **Blair Dome Project (Includes Blair Nickel Mine)**

#### **Pioneer 100%. Nickel Sulphides, Cobalt**

The Blair Dome Project covers an area of 29 km<sup>2</sup> and is located 35 kilometres south east of Kalgoorlie and 40 km by road north of the Kambalda nickel concentrator. The Blair Mine closed in 2008, being a time of depressed nickel price, having produced 1.26mt of nickel ore at 2.62% Ni.

#### **Nickel Sulphide Strategy**

Pioneer's recent work has suggested that the Blair Nickel Sulphide Mine occurs at the southern end of a structural dome. Mineralisation, anomalies and targets are evident along a semi-oval surface expression of the basal ultramafic contact, which has a strike length of 12km within Pioneer's tenure.

Drilling to test the Blair Dome interpretation with pre-collared diamond drill holes is scheduled to be undertaken in the June 2017 quarter. Drilling will be partially funded by the Exploration Incentive Scheme, a WA State Government initiative.

#### **Cobalt Strategy**

Subsequent to the quarter, Pioneer announced it had conducted a detailed review of the cobalt potential of the Golden Ridge Project – the Golden Ridge project hosts the Blair Nickel Mine (ASX announcement 13 April 2017).

Previous drilling focused primarily on nickel sulphides and a significant number of exploration holes have been drilled historically. These were also assayed for a range of other elements, including cobalt.

To date the Company's review of the drilling database has identified six separate prospects with significant cobalt deposited in the weathered rock mantle (lateritic cobalt). Highlight results include:

- **At the Rocket Prospect**

- BLD053: (diamond core) 12m at 0.266% Co from 106m
- GRAC949: (aircore) 14m at 0.211% Co from 43m
- GRAC906: (aircore) 10m at 0.257% Co from 34m

- **Anomaly 14 Prospect**

- GOR0388: (RAB) 12m at 0.139% Co from 36m
- GOR0404: (RAB) 30m at 0.147% Co from 36m (to EOH)
- GOR0409: (RAB) 6m at 0.275% Co from 18m
- GOR0413: (RAB) 6m at 0.308% Co from 18m (to EOH)
- GOR0418: (RAB) 18m at 0.191% Co from 42m (to EOH)

- **Skidman Trend**

- AMBR0059: (RAB) 5m at 0.305% Co from 15m
- GOD0290: (aircore) 8m at 0.25% Co from 16m

- **Leo Dam Trend**

- GOR1107: (RAB) 8m at 0.198% Co ppm from 48m
- GRA0233: (aircore) 10m at 0.153% Co from 38m

## **OUTLOOK**

The Company will update shareholders on its cobalt strategy and its progress at the Project in the September quarter.

Cobalt is a global demand-driven commodity, with an anticipated compound average growth rate (“CAGR”) of at least 30% in response to the growth in manufacture of electric vehicle batteries 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. The level of consumption for these applications is expected to be maintained, however it is the increase in consumption driven by the battery industry, anticipated to rise from 53,043t in 2015 to 120,660t (i.e. 128%) by 2025, that is driving growth. At present 50% of the world’s cobalt is sourced from the Democratic Republic of Congo (USGS), with 94% coming as a by-product from copper and nickel mines. (Green Energy Metals Presentation).

### ***Phillips River Lithium Project***

*Pioneer 100%. Lithium.*

The Phillips River Lithium Project is located mid-way between Ravensthorpe and Esperance in the Great Southern of Western Australia, and 100km east of the Mt Cattlin Lithium Mine. Tenements are readily accessible through a network of main and regional roads with water, power, and a skilled work force available close-by. The Port of Esperance is approximately 60km away.

178 samples of water catchment dam walls were taken to assist with assessing the geology beneath the sand plane, with litho-geochemistry indicating priority areas for soil geochemistry sampling.

## **OUTLOOK**

Approximately 1,800 soil samples remain to be taken. The spring and summer has endured very heavy rain, delaying the progress of soil geochemistry sampling.

### ***Acra Gold Project***

***Pioneer 80%, reducing to 25%. Gold Joint Venture with Northern Star Minerals Limited 20% increasing to 75%.***

Previously, the Company had announced that it had finalised an agreement with gold miner Northern Star Resources Limited (“NST”) by which NST may earn up to a 75% Project Interest in the Acra Gold Project (ASX announcement 21 October 2016).

## **EXPLORATION ACTIVITY**

### ***Deep River***

A 5 hole RC drilling programme was completed targeting shallow mineralisation intersected in earlier drilling, with 600 samples sent to the lab for analysis. The holes intersected predominantly volcanic derived wackes and sandstones interbedded with fine-grained siltstone and shale sedimentary units.

All holes intersected minor quantities of quartz veining but no apparent trend or significant mineralisation was intersected by the drilling.

### ***Kalpini South***

A 9 RC hole drilling programme was completed to follow up on historical work undertaken by Pioneer in the area delineating significant mineralisation. The aim of this drill program was to test both a previously interpreted high grade shoot trend theory, whilst also testing any further strike potential for the mineralisation.

All holes drilled were logged and sampled with 1,104 samples sent to the lab for analysis. All results have been received and processed with no QAQC issues.



The drilling results have closed off several areas with potential for additional mineralisation resulting in a smaller target size with limited upside potential. The mineralisation appears to be all but closed off down-dip, up-dip and along strike.

## **OUTLOOK**

Target generation for the JV tenements is advancing along several fronts including:

- ongoing compilation and analysis of current and historic exploration data;
- ranking of target areas based on stratigraphic position;
- continuing fieldwork and evolution of mineralisation hypotheses from the different mineralisation styles observed within the JV area.

The area north of Kalpini, known as North Brilliant, is an area of extensive historic underground workings that has not been effectively drill tested. These workings will form the core target of a small drilling programme aimed at establishing the potential for down-dip and along strike extensions of the historically mined mineralised lodes.

A recent mapping project has highlighted several other areas that contain significant historic underground workings that have not been effectively drill tested. These will also be targeted with drilling programs aimed at extending the historically worked mineralised lodes.

Subject to the completion of heritage protection surveys, Acra South, Jubilee Gift and Jubilee East prospects will become the main focus of the advanced stage gold exploration strategy in addition to a simultaneous early stage, intensive regional exploration campaign on E27/548.

Yours faithfully



Managing Director

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## **Competent Person**

The information in this report that relates to Exploration Results is based on information supplied to and compiled by Mr David Crook and Mr Paul Dunbar. Mr Crook is a full time employee of Pioneer Resources Limited and Mr Dunbar is a consultant to Pioneer Resources Limited. Both Mr Crook and Mr Dunbar are members of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists and have sufficient experience which is relevant to the exploration processes undertaken to qualify as a Competent Person as defined in the 2012 Editions of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

Mr Crook and Mr Dunbar consent to the inclusion of the matters presented in the announcement in the form and context in which they appear.

## **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.

## **Glossary**

For descriptions of any technical terms that are not described within the report, the reader is directed to various internet sources such as Wikipedia ([www.wikipedia.org](http://www.wikipedia.org)) or Mindat ([www.mindat.org](http://www.mindat.org))

## References

- Acra: Refer Company's announcements to ASX dated 16 April 2014, 22 October 2014, 26 June 2015, 6 October, 2015, 18 December, 2105, 15 February 2016, 21 October 2016
- 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.
- Mavis Lake and Raleigh: Refer Company's announcements to ASX dated 15 March 2016, 20 April 2016, 13 July 2016, 26 July 2016, 12 October 2016, 2 December 2016, 7, 8 February 2017, 10 March 2017, 11 April 2017
- Phillips River: Refer Company's announcements to ASX dated 6 April 2016
- Donnelly: Refer Company's announcements to ASX dated 26 April 2016
- Pioneer Dome: Refer Company's announcements to ASX 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

The Company it is not aware of any new information or data that materially affects the information included in this Report

**Tenement Schedule**  
(Consolidated Basis)

**Golden Ridge Nickel Project Located 30km SE of Kalgoorlie, WA**

M26/220	Golden Ridge North Kambalda Pty Ltd	1
M26/222	Golden Ridge North Kambalda Pty Ltd	1, 11
M26/284	Golden Ridge North Kambalda Pty Ltd	1, 11
M26/285	Golden Ridge North Kambalda Pty Ltd	1, 11
L26/272	Golden Ridge North Kambalda Pty Ltd	1

**Juglah Dome Gold/VMS Project Located 58km SE of Kalgoorlie, WA**

E25/381	Western Copper Pty Ltd	4
E25/514	Pioneer Resources Limited	
E25/523	Western Copper Pty Ltd	4, 13

**Fairwater Nickel Project Located 220km SE of Kalgoorlie, WA**

E63/1244	Pioneer Resources Limited / National Minerals Pty Ltd	10
E63/1665	Pioneer Resources Limited / National Minerals Pty Ltd	10
E63/1714	Pioneer Resources Limited / National Minerals Pty Ltd	10

**Pioneer Dome Project Located 133km SSE of Kalgoorlie, WA**

E15/1515	Pioneer Resources Limited	
E15/1522	Pioneer Resources Limited	
E63/1669	Pioneer Resources Limited	
E63/1782	Pioneer Resources Limited	
E63/1783	Pioneer Resources Limited	
E63/1785	Pioneer Resources Limited	
E63/1825	Pioneer Resources Limited	
M63/665	Pioneer Resources Limited	

**Katanning Gold Project Located 260km SE of Perth, WA**

E70/4827	Pioneer Resources Limited	
E70/4828	Pioneer Resources Limited	
E70/4835	Pioneer Resources Limited	
E70/4836	Pioneer Resources Limited	

**Phillips River Lithium Project Located 50km NW of Esperance, WA.**

E74/581	Pioneer Resources Limited	
E63/1776	Pioneer Resources Limited	

**Bogadi Lithium Project Located 240km SE of Carnarvon, WA**

E09/2180	Pioneer Resources Limited / Milford Resources Pty Ltd	12

**Donnelly Lithium Project Located 15km SW of Greenbushes, WA**

E70/4826	Paul Winston Askins	14
E70/4829	Paul Winston Askins	14

**Lithium Regional Projects, Located in WA**

E30/487	Pioneer Resources Limited	
E63/1796	Pioneer Resources Limited	



<b>Mavis Lake and Raleigh Lithium Projects, Located 10km and 60km East of Dryden, Ontario, Canada</b>		
4208712	International Lithium Corporation	15
4208713	International Lithium Corporation	15
4208714	International Lithium Corporation	15
4218370	International Lithium Corporation	15
4218371	International Lithium Corporation	15
4242501	International Lithium Corporation	15
4242502	International Lithium Corporation	15
4242505	International Lithium Corporation	15
4245250	International Lithium Corporation	15
4274924	International Lithium Corporation	15
4274925	International Lithium Corporation	15
4274926	International Lithium Corporation	15
4274927	International Lithium Corporation	15
4251131	International Lithium Corporation	15
4251132	International Lithium Corporation	15
4251133	International Lithium Corporation	15
4251134	International Lithium Corporation	15
4251135	International Lithium Corporation	15
4251136	International Lithium Corporation	15
4251137	International Lithium Corporation	15
4251138	International Lithium Corporation	15
4251139	International Lithium Corporation	15
4251140	International Lithium Corporation	15
K489140	International Lithium Corporation	15
K498288	International Lithium Corporation	15
K498289	International Lithium Corporation	15
K498290	International Lithium Corporation	15
K498292	International Lithium Corporation	15
<b>Acra Gold Project Located 60km NE of Kalgoorlie, WA</b>		
E27/278	Pioneer Resources Limited	2, 8
E27/438	Pioneer Resources Limited	8
E27/491	Pioneer Resources Limited	8
E27/520	Pioneer Resources Limited	2, 8
E27/548	Pioneer Resources Limited	8
E27/579	Pioneer Resources Limited	8
E28/1746	Pioneer Resources Limited	2, 8
E28/2483	Pioneer Resources Limited	8
<b>Wattle Dam Nickel Project Located 65km S of Kalgoorlie, WA</b>		
M15/1101	Maximus Resources Limited	3, 5
M15/1263	Maximus Resources Limited	3, 5
M15/1264	Maximus Resources Limited	3, 5
M15/1323	Maximus Resources Limited	3, 5
M15/1338	Maximus Resources Limited	3, 5
M15/1769	Maximus Resources Limited	3, 5
M15/1770	Maximus Resources Limited	3, 5
M15/1771	Maximus Resources Limited	3, 5
M15/1772	Maximus Resources Limited	3, 5
M15/1773	Maximus Resources Limited	3, 5

<b>Larkinville Lithium, Nickel Project Located 75km S of Kalgoorlie, WA</b>		
M15/1449	Maximus Resources Limited / Pioneer Resources Limited	6, 7
P15/5912	Maximus Resources Limited / Pioneer Resources Limited	6, 7
<b>Maggie Hays Hill JV, Located 140km SE of Southern Cross</b>		
E63/1784	Poseidon Nickel Limited / Pioneer Resources Ltd	16
<b>Ravensthorpe Copper-Gold Project Located 340km SW of Kalgoorlie, WA</b>		
E74/311	ACH Minerals Pty Limited	9
E74/379-1	ACH Minerals Pty Limited	9
E74/392	ACH Minerals Pty Limited	9
E74/399	ACH Minerals Pty Limited	9
E74/406	ACH Minerals Pty Limited	9
E74/486	ACH Minerals Pty Limited	9
E74/537	ACH Minerals Pty Limited	9
E74/558	ACH Minerals Pty Limited	9
E74/560	ACH Minerals Pty Limited	9
M74/163	ACH Minerals Pty Limited	9
P74/349	ACH Minerals Pty Limited	9

1	Golden Ridge North Kambalda P/L is a wholly-owned subsidiary of Pioneer
2	Heron Resources Limited retains nickel laterite ore
3	Heron Resources Limited retains pre-emptive right to purchase Nickel Laterite Ore
4	Western Copper Pty Limited is a wholly-owned subsidiary of Pioneer
5	Wattle Dam JV Agreement: Title, Mineral Rights held by Maximus Resources Limited, except nickel. Pioneer 20% free carried interest in NiS minerals
6	Larkinville JV Agreement: Maximus Resources Limited 75% in Gold and Tantalite, Pioneer 25% free carried interest
7	Larkinville JV Agreement: Maximus has an 80% interest in nickel rights, Pioneer 20% free carried interest
8	Acra JV Agreement Northern Star Resources Limited 20% interest and may earn additional 55%. Pioneer 25% free carried interest
9	Ravensthorpe: Title and rights to all minerals held by ACH Minerals Pty Limited. Pioneer 1.5% NSR
10	Fairwater JV Agreement: Pioneer 75% Interest, National Minerals P/L 25% free carried interest
11	Gold royalty held by Morgan Stanley Finance Pty Limited and Morgan Stanley Capital Group Inc.
12	Milford Resources Pty Limited 10% free carried interest
13	1% gross royalty held by Walter Scott Wilson
14	Subject to an Option Agreement with P Askins
15	Subject to an earn-in Joint Venture with International Lithium Corp.
16	Maggie Hays Lake JV Agreement: Poseidon Nickel Limited 80%, Pioneer 20% & free carried interest to commencement of mining.

## Appendix 5B

# Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

### Name of entity

**PIONEER RESOURCES LIMITED**

### ABN

**44 103 423 981**

### Quarter ended ("current quarter")

**31 March 2017**

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	(850)	(3,100)
(b) development	-	-
(c) production	-	-
(d) staff costs	(255)	(621)
(e) staff costs recharged to exploration	184	476
(f) administration and corporate costs	(81)	(724)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	25	82
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Research and development refunds	-	464
1.8 Other (provide details if material)	-	2
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(977)</b>	<b>(3,421)</b>

<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) property, plant and equipment	(1)	(38)
(b) tenements (see item 10)	-	-

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (9 months) \$A'000</b>
	(c) investments	-	-
	(d) other non-current assets	-	-
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment	-	-
	(b) tenements (see item 10) – from NST re sale of 20% interest of Acra Project	-	500
	(c) investments	-	-
	(d) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>(1)</b>	<b>462</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of shares	-	1,518
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	-
3.4	Transaction costs related to issues of shares, convertible notes or options	-	(222)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>-</b>	<b>1,296</b>
<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	4,413	5,098
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(977)	(3,421)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(1)	462
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	1,296



<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (9 months) \$A'000</b>
4.5	Effect of movement in exchange rates on cash held	(5)	(5)
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>3,430</b>	<b>3,430</b>

<b>5.</b>	<b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	216	133
5.2	Call deposits	3,214	4,280
5.3	Bank overdrafts		
5.4	Other (provide details)		
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>3,430</b>	<b>4,413</b>

**6. Payments to directors of the entity and their associates**

- 6.1 Aggregate amount of payments to these parties included in item 1.2
- 6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

**Current quarter  
\$A'000**

173

-

Managing Director and Non-Executive Directors' remuneration - \$173k

**7. Payments to related entities of the entity and their associates**

- 7.1 Aggregate amount of payments to these parties included in item 1.2
- 7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

**Current quarter  
\$A'000**

-

-

## Mining exploration entity and oil and gas exploration entity quarterly report

8.	<b>Financing facilities available</b> <i>Add notes as necessary for an understanding of the position</i>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
8.1	Loan facilities	-	-
8.2	Credit standby arrangements	-	-
8.3	Other (please specify)	-	-
8.4	Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		

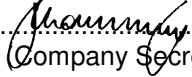
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9.	<b>Estimated cash outflows for next quarter</b>	<b>\$A'000</b>
9.1	Exploration and evaluation	1,500
9.2	Development	-
9.3	Production	-
9.4	Staff costs	200
9.5	Administration and corporate costs	275
9.6	Other (provide details if material)	-
9.7	<b>Total estimated cash outflows</b>	<b>1,975</b>

10.	<b>Changes in tenements (items 2.1(b) and 2.2(b) above)</b>	<b>Tenement reference and location</b>	<b>Nature of interest</b>	<b>Interest at beginning of quarter</b>	<b>Interest at end of quarter</b>
10.1	Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced				
10.2	Interests in mining tenements and petroleum tenements acquired or increased	E15/1522	Registered holder	0%	100%
		E63/1782	Registered holder	0%	100%
		E63/1783	Registered holder	0%	100%
		E63/1825	Registered holder	0%	100%
		E30/487	Registered holder	0%	100%
		E63/1796	Registered holder	0%	100%

### **Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Sign here: .....  ..... Date: 21 April 2017  
(Company Secretary)

Print name: Julie Anne Wolseley

### **Notes**

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.