

3	28	79
Li	Ni	Au
6.941	58.693	196.97



## ANNUAL TECHNICAL REPORT 2016

### Chairman's Letter

# Craig McGown



#### DEAR SHAREHOLDER

The past year has been transforming for your Company with the diversification into lithium exploration while continuing to progress the Acra Gold project and Blair Dome Nickel project. The addition of lithium and caesium to the project portfolio has resulted in the Company's first overseas project with the execution of an option agreement with International Lithium Corporation whereby Pioneer can acquire up to 80% of the Mavis Lake and Raleigh spodumene pegmatite projects in Ontario, Canada. Further project generation work has identified several compelling projects in Western Australia including the Pioneer Dome, Phillips River and the Donnelly River projects. Initial exploration has been encouraging as is reflected by the recent drilling at Pioneer Dome with further exploration planned in the next two quarters. Brief summaries of the status for these projects are provided over the next few pages.

All of the projects, including the recently acquired lithium projects, have valuable existing datasets which through the past twelve months have been significantly advanced by your Company's technical team and its joint venturers. In all projects, important new targets have been developed and significant progress has been made to realise material value in these projects. Advances over the past year have included:

- Identification of multiple pegmatite clusters within the Pioneer Dome project along more than 14km of prospective stratigraphy, soil sampling and RC drilling the more compelling initial targets including the extremely differentiated pegmatite at PEG 08 which intersected the very rare, high grade caesium mineralisation.
- Identification of the spodumene pegmatite projects at Mavis Lake and Raleigh including several untested high priority pegmatite occurrences and additional strike extensions to the known pegmatite systems.
- Continuing progress on the Acra Gold project which has increased our knowledge of the region and provided a better basis to better consider the future strategic direction of this project.

- Further work on the Blair Dome concept which provides coherence to nickel targets along an 11 km strike.

Other than lithium projects, funding of early stage exploration projects remains challenging. For the new shareholders in our Company, welcome and to our existing shareholders, including the Board, who participated in the Company's fundraisings during and subsequent to the financial year which totalled \$7.49m (before issue costs), I thank you for your continuing support.

I would also like to thank my Board and Company Secretary for their positive input and contribution into the successful operation of your Company and acknowledge the significant and tireless contribution made by our Managing Director, David Crook. Given the increased activities of the Company the team has been expanded to increasingly include consultants Paul Dunbar and Nigel Brand whose input on the projects has been important.

The Pioneer Resources team and Board remain focused on delivering shareholder value through our targeted exploration activities, and I look forward to sharing news of our progress with you in the year ahead.

Yours faithfully

**Craig McGown**  
Non-executive Chairman  
Pioneer Resources Ltd

[www.pioresources.com.au](http://www.pioresources.com.au)



Code: **PIO**



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# Managing Director's Letter

## David Crook



### DEAR SHAREHOLDER

On behalf of the Directors of Pioneer Resources Limited, I am pleased to present this Annual Technical Summary for 2016.

This year was one of major growth and transformation for your Company, as it expanded its exploration strategy to focus on key demand-driven commodities. This resulted in the establishment of a portfolio of quality lithium projects in Canada and Western Australia, in addition to Pioneer's existing portfolio of strategically located gold, nickel and other commodity assets in WA.

The move into the lithium sector reflects the substantial growth in global lithium demand, underpinned by the commercialisation and adoption of lithium battery technologies and energy storage systems.

Via an introduction from Pioneer Director Wayne Spilsbury, the Company was able to enter into joint venture agreements with Canadian-listed company, International Lithium Corp. for the Mavis Lake and Raleigh Lithium Projects in Ontario, Canada.

In WA, the Company undertook a rigorous lithium project assessment and appraisal process, which resulted in it pegging and acquiring a portfolio of lithium-prospective projects. This included the identification of significant lithium prospectivity at one of our existing projects, the Pioneer Dome Project, in south eastern WA.

Pioneer recently completed a highly successful maiden drill program at Pioneer Dome, which comprised 64 reverse circulation (RC) drill holes across a total of 5,200 metres. The program intersected significant lithium and caesium mineralisation, and confirmed that the Pioneer Dome Project hosts a rare-metal Lithium-Caesium-Tantalum (LCT) Pegmatite system.

The Company remains committed to its Gold and Nickel Projects in the Goldfields region of WA.

Following successful drilling programs at the Acra Gold Project in late 2015, and with an improving Australian gold price, Pioneer has received approaches from multiple well credentialed gold companies. The goal is to secure an alternative funding model, which could accelerate drilling and provide a clear path to mine development while mitigating the Company's financial risk.

Nickel specialists working on our Blair Nickel Project have developed an innovative geological model. Following a review of key geological and geophysical data, the Company is preparing for the next phase of drilling at Blair, which will be partially funded by the WA government's Exploration Incentive Scheme.

Pioneer is an active and focused exploration company, and in the 2015-16 year conducted extensive drilling, soil geochemistry and geophysics programs at its projects, as follows:

- 14,512 metres of drilling at Pioneer Dome and Acra Projects; and
- 15,000 soil geochemistry samples from the Pioneer Dome Acra, Fairwater, Blair Dome and Juglah Dome Projects.

Over the coming months the Company will commence the first drill programs at our Canadian projects, with a total of approximately 3,000 metres of diamond drilling planned for the Mavis and Raleigh Projects. We will also plan for the next phase of drilling at Pioneer Dome, and for exploration programs to advance our other WA lithium assets.

I would like to acknowledge our valued and well regarded team: Melinda O'Ryan, George Burgess, Nigel Brand and Helen Sanders. I would also like to welcome Paul Dunbar, Stuart Kerr, Jess Booth and Anthony Jenkinson, and our Canadian technical partners headed by Mike Sieb, to the Pioneer team. Thank you also to our other consultants and contractors who have all contributed to the Company's operations during the year. The combined effort of all the Pioneer team is greatly appreciated.

Finally, I join with our Chairman to thank investors who have supported our Company during past years, and to welcome new shareholders. We look forward to conveying results of our exploration programs as they progress in the year ahead.

Yours faithfully

**David Crook**  
Managing Director

In addition to the project specific ASX announcements detailed below Exploration activities and updates have been announced in the Company's Quarterly Activities Reports, released 30 October 2015, 29 January 2016, 29 April 2016 and 29 July 2016.

Note 1 (Mavis Lake and Raleigh) Refer to company announcements to the ASX dated 15 March 2016, 20 April 2016, 22 June 2016, 13 July 2016, 26 July 2016 and 12 October 2016.

Note 2 (Pioneer Dome) Refer to the Company announcements to the ASX dated 29 April 2016, 17 May 2016, 27 July 2016, 23 August 2016, 1 September 2016, 4 October 2016 and 17 October 2016.

Note 3 (ACRA) Refer to the Company announcements to the ASX dated 27 November 2015, 18 December 2015, 15 February 2016.

Note 4 (Blair) Drill results from Marshal and Leo Dam and the Blair Resource Estimate released under JORC2004. Other information disclosed under the JORC Code 2012 in various ASX Quarterly Activities Reports.





## Canada

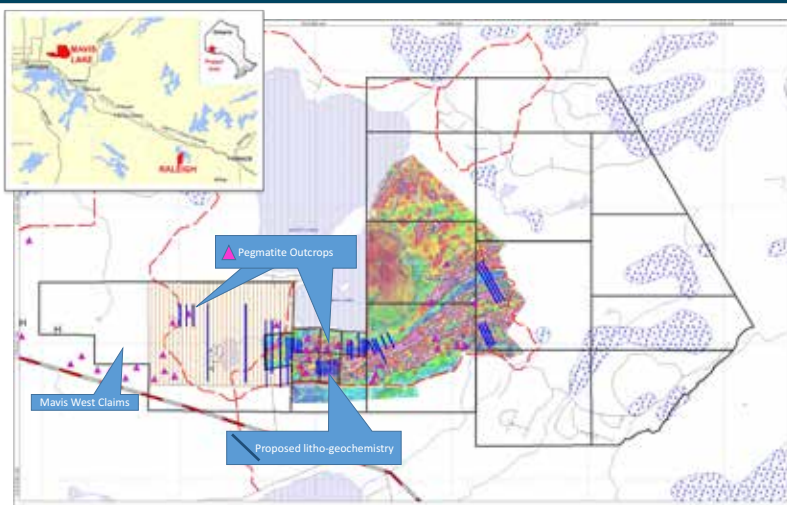
Pioneer has an option Agreement and Strategic Alliance with International Lithium Corp (TSX.V:ILC) to earn up to 80% interest in the Mavis and Raleigh projects.

The Mavis and Raleigh Lithium Projects are situated 19 and 80 km respectively east from the town of Dryden, Ontario. Both Projects are in close proximity to the Trans-Canada highway and railway, both major transportation arterials linking larger cities such as Thunder Bay, Ontario to the southeast and Winnipeg, Manitoba to the west.

Pioneer and International Lithium are actively reviewing additional Lithium projects within Ontario.



*Spodumene rich pegmatite outcrop*



### MAVIS LAKE

The project covering 3,133 hectares has several spodumene rich pegmatites, varying in strike length from 11m to >240m and range in thickness up to 12m within an initial 4.8km long target zone.

There are multiple additional undrilled lithium pegmatite targets. Diamond Drilling is planned to commence in the March quarter 2017.

#### Drilling Highlights

MF-11-08	7m at 1.83% Li <sub>2</sub> O from 4m
MF-11-09	7.8m at 1.86% Li <sub>2</sub> O from 18.85m
MF-11-12	16m at 1.53% Li <sub>2</sub> O from 125m
MF-11-12	26.25m at 1.55% Li <sub>2</sub> O from 152m
MF-11-13	5m at 1.44% Li <sub>2</sub> O from 19m
MF-11-14	3m at 2.15% Li <sub>2</sub> O from 24m
MF-11-15	5.35m at 1.51% Li <sub>2</sub> O from 78.4m
MF-12-24	16.4m at 1.86% Li <sub>2</sub> O from 161.9m
MF-12-25	5.15m at 1.75% Li <sub>2</sub> O from 130.7m
MF-12-28	6m at 2.53% Li <sub>2</sub> O from 6m
MF-12-30	6.95m at 1.45% Li <sub>2</sub> O from 32.25m
MF-12-33	3m at 2.26% Li <sub>2</sub> O from 22m
MF-12-34	5m at 1.5% Li <sub>2</sub> O from 24m
MF-12-36	6m at 1.48% Li <sub>2</sub> O from 31m

### RALEIGH

The project contains several spodumene rich pegmatites and covers 936 hectares.

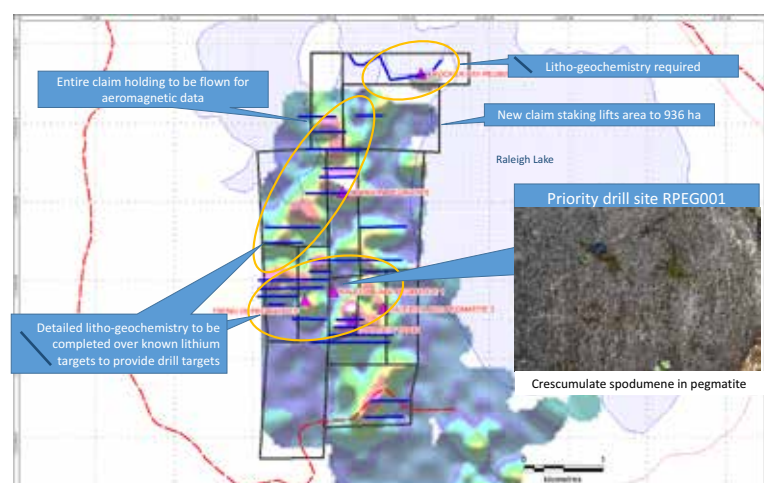
A detailed mapping and geochemical sampling programme is underway to infill large historical lithium geochemical anomalies generated in wide-spaced work. This is expected to generate additional drilling targets along strike from the existing spodumene rich pegmatites.

An airborne magnetic survey will be flown in the December 2016 quarter across the entire project to delineate pegmatites and enable drill targeting.

There are multiple additional undrilled lithium pegmatite targets. Diamond Drilling is planned to commence in the December quarter 2016.

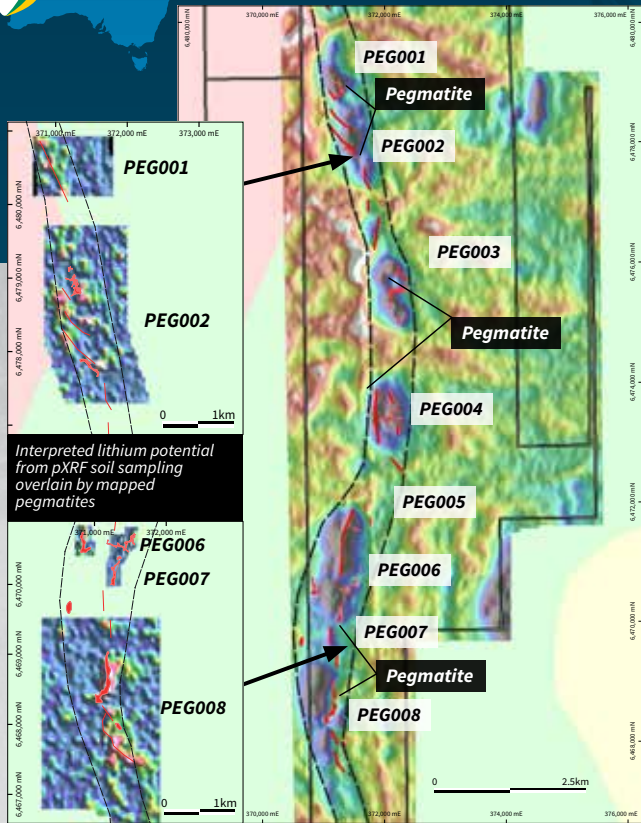
#### Drilling Highlights

RL10-1:	2.7m at 2.02% Li <sub>2</sub> O from 29.3m; and 7.8m at 1.49% Li <sub>2</sub> O from 153.2m
RL10-2:	8.5m at 2.38% Li <sub>2</sub> O from 84m, inc. 2.5m at 3.99% Li <sub>2</sub> O from 87.5m
RL10-3:	5.95m at 1.64% Li <sub>2</sub> O from 103.05m inc. 5m at 0.032% Ta <sub>2</sub> O <sub>5</sub> from 104m
RL10-5:	5m at 1.31% Li <sub>2</sub> O from 26m inc. 5m at 0.022% Ta <sub>2</sub> O <sub>5</sub> from 27m
RL10-6:	14.2m at 1.07% Li <sub>2</sub> O from 114m



## Western Australia

Pioneer has an extensive lithium project portfolio within Western Australia including traditional pegmatite projects adjacent to or within known lithium mineralised regions and non-traditional lithium targets.



### PIONEER DOME

The Pioneer Dome project is ideally located 130 km south of Kalgoorlie and 200km north of Esperance adjacent to the Goldfields highway and other infrastructure including water and gas pipelines.

Pioneer has discovered a 14km long pegmatite corridor of highly prospective LCT pegmatites.

Exploration has consisted of regional rock chip sampling, detailed and regional soil sampling and RC drilling.

Drilling has confirmed the presence of an extremely differentiated pegmatite body at PEG008 with highly anomalous drill intersections for lithium, caesium and tantalum.

Additional exploration is planned around the rare and highly unusual extremely high grade caesium drilling intersection.

#### Drilling Highlights

PDR0015	7m at 1.52% Li <sub>2</sub> O from 52m 6m at 27.7% Cs <sub>2</sub> O from 47m
PDR0020	3m @ 1.11% Li <sub>2</sub> O from 44m
PDR0021	12m @ 1.36% Li <sub>2</sub> O from 54m 10m at 408ppm Ta <sub>2</sub> O <sub>5</sub> from 54m
PDR0056	6m @ 1.79% Li <sub>2</sub> O from 48m
PDR0057	12m @ 1.41% Li <sub>2</sub> O from 60m
PDR0059	5m @ 2.07% Li <sub>2</sub> O from 37m



RC drilling at Pioneer Dome

### PHILLIPS RIVER

The Phillips River project, located approximately 50km north west of Esperance is a greenfield lithium project identified as a part of Pioneer's regional targeting.

One of the highest lithium in stream sediment samples in Australia is located within the project area.

Previous exploration within the tenements by a gold explorer consisted of auger sampling along access roads. These auger samples were assayed for a wide suite of elements including lithium and other LCT elements. There are multiple samples in four target areas that are highly anomalous; these will be the focus of exploration. Initial access negotiations with the various farmers in the area are encouraging with exploration expected to commence in late 2016.

### DONNELLY RIVER

One of the most significant hard rock lithium mines globally is the Greenbushes deposit, in the south west of Western Australia. Greenbushes is located approximately 20km to the north east of Pioneer's Donnelly River project which consists of two exploration leases. Pioneer has an ongoing option agreement to acquire both these tenements. The tenement applications are mainly within state forests therefore prior to grant and the commencement of exploration a Conservation Management Plan must be approved. Exploration activities are planned to commence in the first half of 2017.

### OTHER REGIONAL PROJECTS

Pioneer has 17 additional granted and tenement applications within Western Australia which are prospective for lithium, gold and nickel and other base metals. These are generally early stage exploration projects identified as having significant potential during regional project generation activities. Exploration within some of these tenements is planned to commence during 2017.



## ACRA

The Acra project is located 60km north east of Kalgoorlie, W.A, and covers an area of 289km<sup>2</sup>

The project hosts a 20km long target zone with potential for the discovery of significant gold deposits.

Pioneer’s drilling has consistently returned impressive gold results.

Pioneer is focussed on progressively drilling the high priority targets within the project.

Recent drilling has extended the lead Kalpini South target to 240m and has also generated additional new targets, highlighting the potential within the project.



## Drilling Results confirm Gold Endowment KALPINI SOUTH

KSRC004	10m at 6.38g/t from 61m
KSRC004	5m at 3.29g/t from 100m
KSRC004	8m at 1.45g/t from 85m
KSRC005	9m at 5.31g/t from 36m
KSRC007	13m at 3.31g/t from 94m
KSRC007	12m at 0.91g/t from 113m
KSRC010	3m at 5.44g/t from 128m
KSRC010	8m at 1.41g/t from 85m
KSRC018	18m at 1.98g/t from 97m
KSRC021	6m at 1.89g/t from 85m
KSRC031	9m at 6.17g/t from 60m
KSRC032	7m at 1.93g/t from 106m
KSRC024	0.22m at 116.5g/t from 131m
KSRC025	2.2m at 12.17g/t from 145.42m

## JUBILEE EAST

JERC002	13m at 2.84g/t from 27m
JERC003	2m at 12.42g/t from 57m
JERC007	4m at 8.1g/t from 34m
JERC010	7m at 2.6g/t from 101m
JERC038	8m at 2.14g/t from 52m



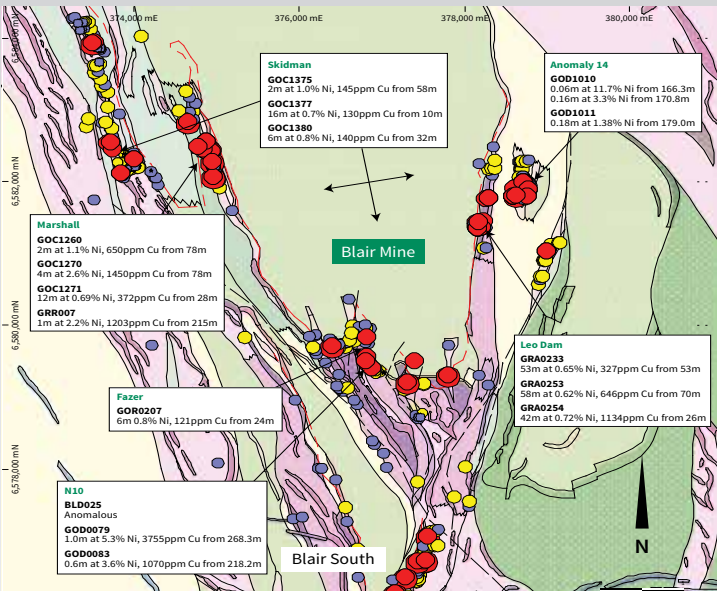
## BLAIR DOME

The Blair Dome Nickel Project covers an area of 29km<sup>2</sup> and is located 35km south east of Kalgoorlie W.A., or 40km by road north of the Kambalda nickel concentrator.

The geology of the project has been recently reinterpreted which suggests the Blair nickel deposit occurs on the edge of a regional dome. This is similar in both size and geology to several other ultramafic domes in the region including the Kambalda, Tramways and Widgiemooltha domes, which all host major nickel sulphide mines.

Exploration incentive scheme (EIS) funding has been secured to drill test the geological interpretation which if correct provides over 12km of prospective basal ultramafic contact that has had minimal exploration.

Exploration, consisting of diamond drilling is planned for late 2016 once the interpretation is validated and integrated with all available geophysical and geochemical data to provide the best drilling locations.



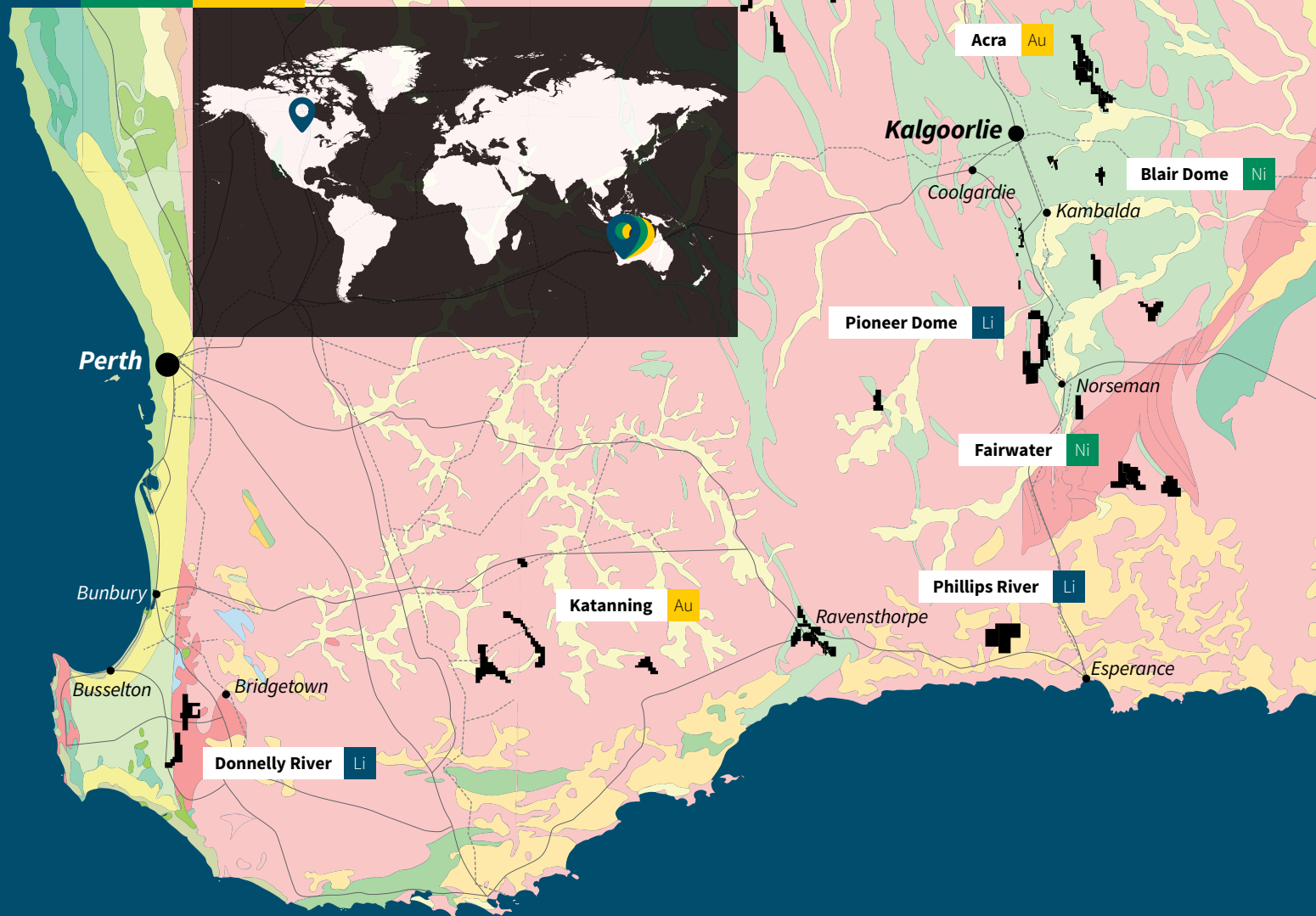
Interpretive Geology of the Blair Dome

## Mineral Resource Summary by Category: Blair Nickel Mine

The Mineral Resource estimate is: 222,710t of nickel sulphide ore with a grade of 2.92% Ni, as summarised by category below:

Class	Tonnes (t)	Ni (%)	Ni Metal (t)
Indicated	75,560	4.37	3,300
Inferred	147,150	2.18	3,210
Total	222,710	2.92	6,510

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**Pioneer Resources (ASX: PIO) is a active junior exploration company with a portfolio of strategically located lithium, gold, nickel and base metal projects in sought after mining regions in Western Australia and Canada.**

The Company aims to discover and develop high value mineral resources from within its project areas, to create value for shareholders.

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- PO Box 1787, West Perth WA 6872
- pioneer@pioresources.com.au

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## FINANCIAL

Share Price (29 September 2016)	\$0.025
Shares (PIO)	1,037.7 million
Quoted Options (PIOO)	44.3 million
Unquoted Options	55.3 million
12 month range - Share price	\$0.01-\$0.10
Cash (30 June 2016)	\$5.1 million
Market capitalisation	\$25.9 million

## CORPORATE

Non-Executive Chairman  
Managing Director  
Non-Executive Director  
Non-Executive Director  
Company Secretary

Craig McGown  
David Crook  
Wayne Spilsbury  
Allan Trench  
Julie Wolseley



ASX

Code: PIO

**Pioneer**  
RESOURCES LIMITED