

3	28	79	55	27
Li	Ni	Au	Cs	Co
6.941	58.69	196.967	132.905	58.933



Targeting Key Global Demand-driven Commodities

Investor Presentation
November 2017

David Crook
Managing Director

ASX: PIO



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Lithium-Caesium-Tantalum

“You won’t be able to afford it”

Mine Executive on buying caesium formate

***Everyone’s talking about Lithium... and they should be
“It’s the next gasoline.”***

Brian Colwell


Lithium-Caesium-Tantalum

PIONEER DOME

- Develop Sinclair Zone Pollucite (Caesium) Resource*
- Next Value Driver will be the Discovery of Spodumene*
- And/or the discovery of additional Caesium Resources*

CANADA

- Mavis Lake, Raleigh, Canada (Spodumene): - Drilling in January*



Kalgoorlie Cobalt - Nickel Pilbara Gold

Corporate Overview



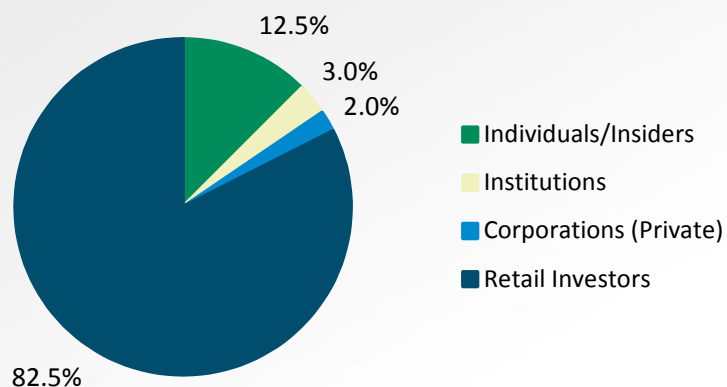
Capital Structure

Share Price (30 August 2017)	\$0.035
Shares Outstanding (m)	1,430
Market Capitalisation (\$m)	\$50.0
Cash (\$m) (approx. 15/11/2017)	\$6.5
Debt (\$m)	0.0
Options Outstanding (listed/unlisted(m))	44.3/32

Board of Directors

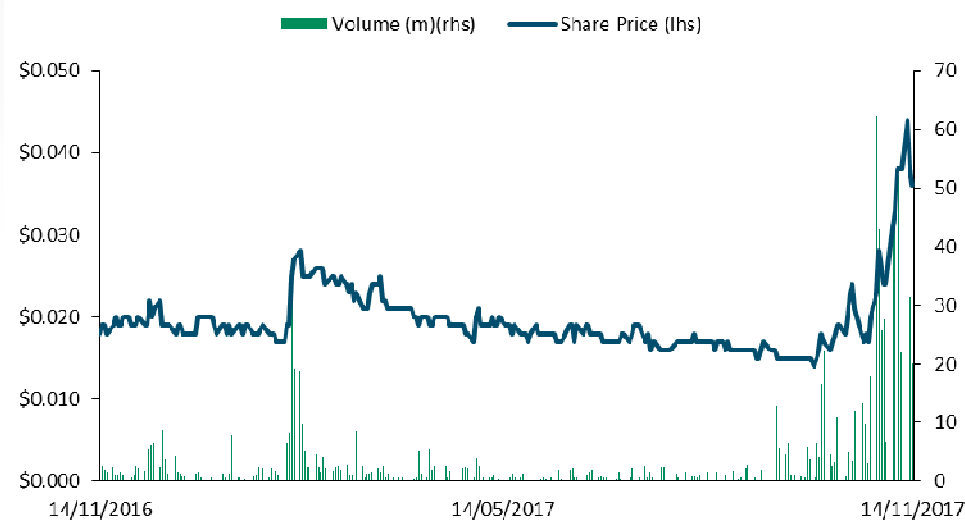
Craig McGown	Non-Executive Chairman
David Crook	Managing Director
Allan Trench	Non-Executive Director
Wayne Spilsbury	Non-Executive Director

Shareholder Analysis



Top 20 Ownership: 16.5%

12 Month Share Price chart



Sinclair Caesium Zone Timetable



Timetable – Aiming for Q1 2018 startup:

- Mining Lease granted 13 November 2017
- Project Plan and Safety Management System: Mid January 2017
- Detailed heritage surveys: December 2017
- Detailed resource drilling and update: December 2017-January 2018
- Mine design update: further refinement with mining contractor January
- Offtake: Following updates – finalise agreement
- Final Approvals from DMIRS (Mines Department):

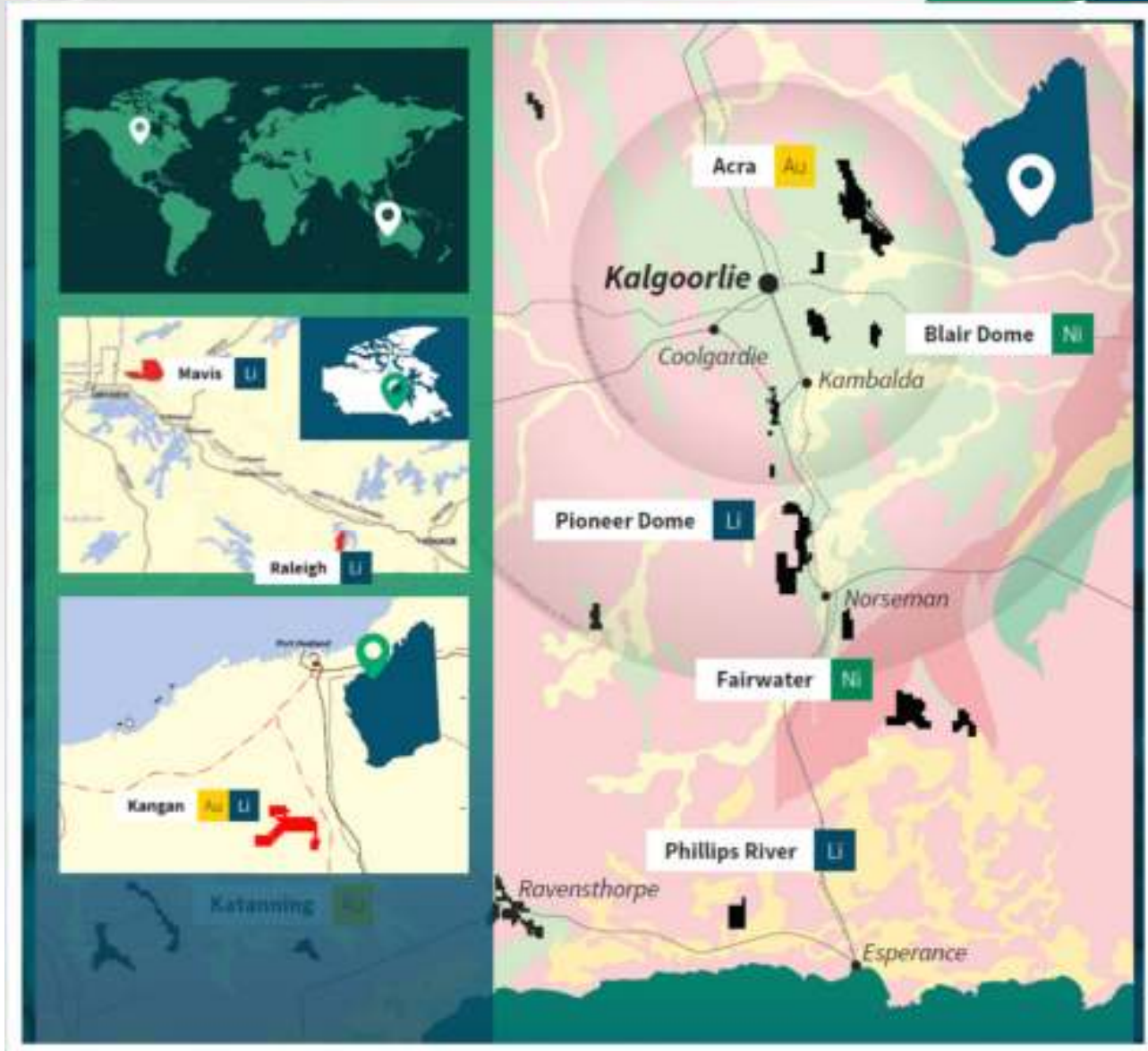
Operations

Key Assets Along Infrastructure Corridors in WA and Ontario



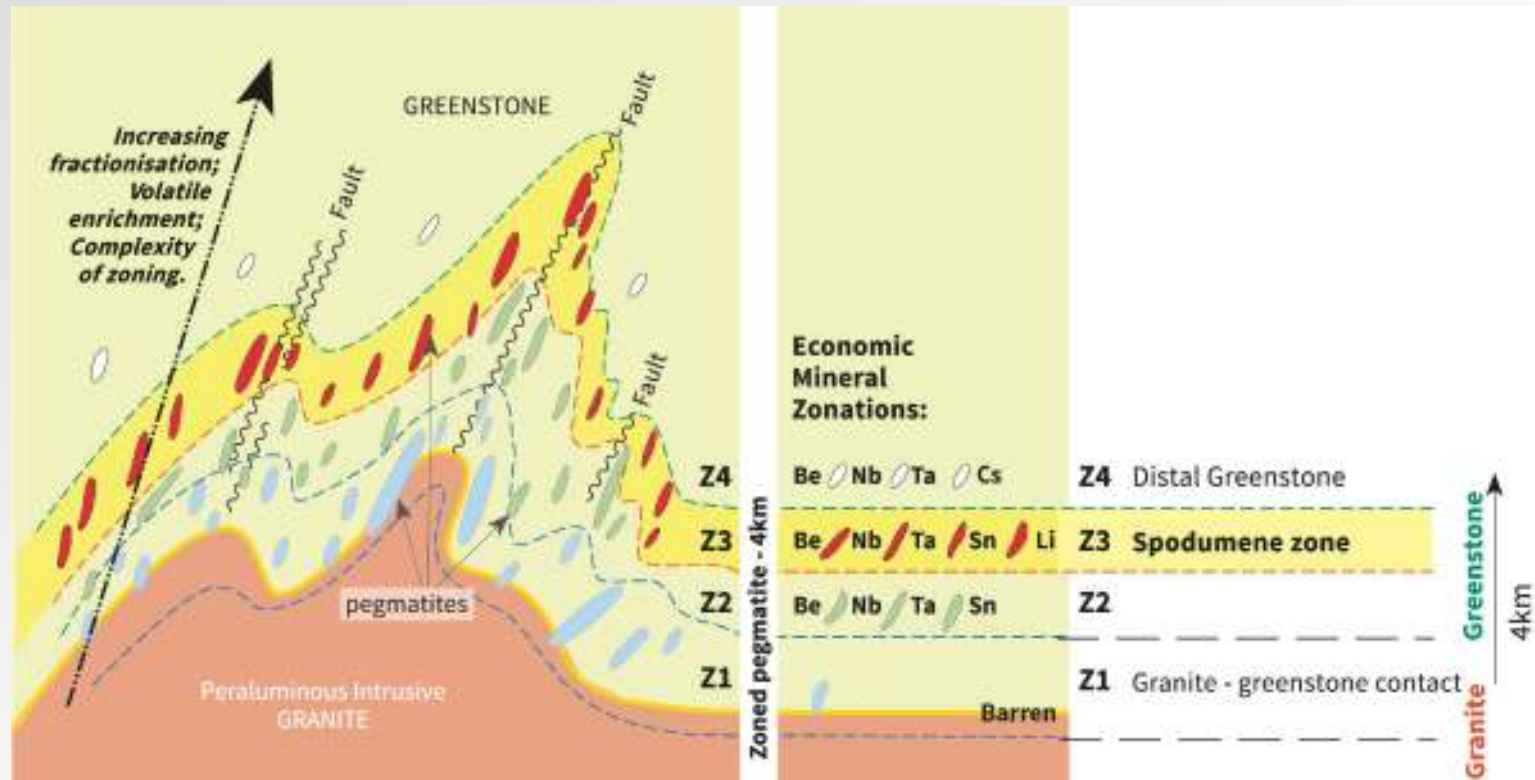
Pioneer Dome
Mavis Lake
Blair Dome
Kangan

Norseman
Ontario
Kalgoorlie
Pilbara



Pioneer Dome: Zonation of Complex LCT Pegmatites

Group	1
Period 1	1 H
2	3 Li
3	11 Na
4	19 K
5	37 Rb
6	55 Cs
7	87 Fr





GP2:

Wall zone
Plag - quartz



GP4:

Lower

Lithium



GP5:

Li-Al silicates

Intermediate Zones



GP6:

K-Feldspar



GP7:

Quartz



Caesium

GP8:

Pollucite



Lithium
Rubidium

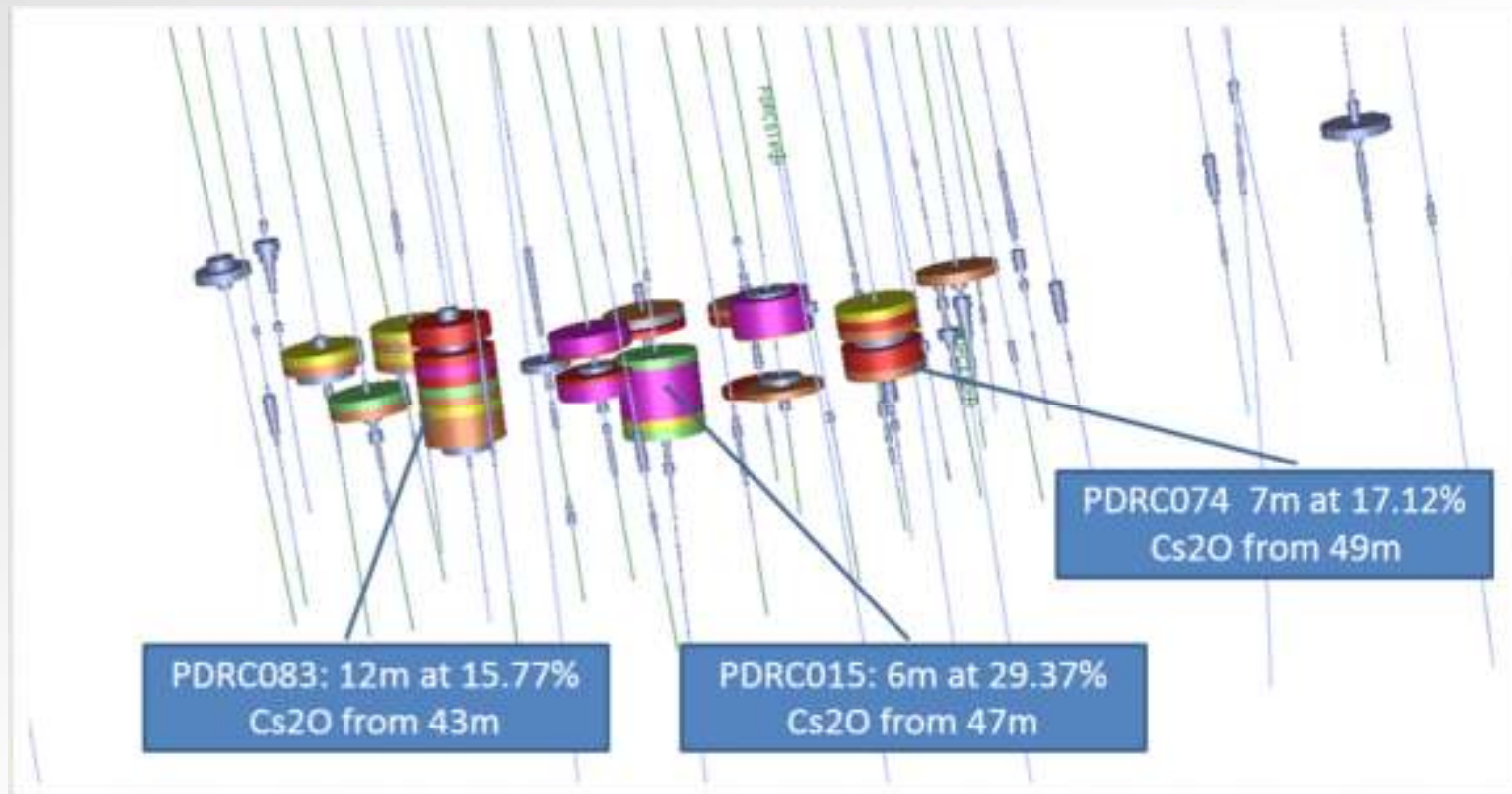
GP9:

Lepidolite

Highly Fractionated Core

Sinclair Caesium Zone

- **Discovery in October 2016,**
- Measured Mineral Resource of **10,500t pollucite grading 17.1% Cs₂O**
- **The World's 3rd largest known pollucite deposit (pre depletion of others)**
- Mining Studies advancing
- Mining Lease granted 13/11/2017
- Offtaker(s) identified



Pollucite – what is it

- Very rare
- forms in highly evolved LCT pegmatite core zone
- one of the last primary igneous minerals to crystallise
- range from fist-size to small pods
- co-exists with petalite, silica (and lepidolite)
- Known at approximately 110 localities worldwide
 - Two locations, Tanco Manitoba and Bikita, Zimbabwe represent ‘commercial-sized’ pollucite deposits
 - The remaining locations contain only a few grams of the mineral (Teertstra & Černý, 1997).

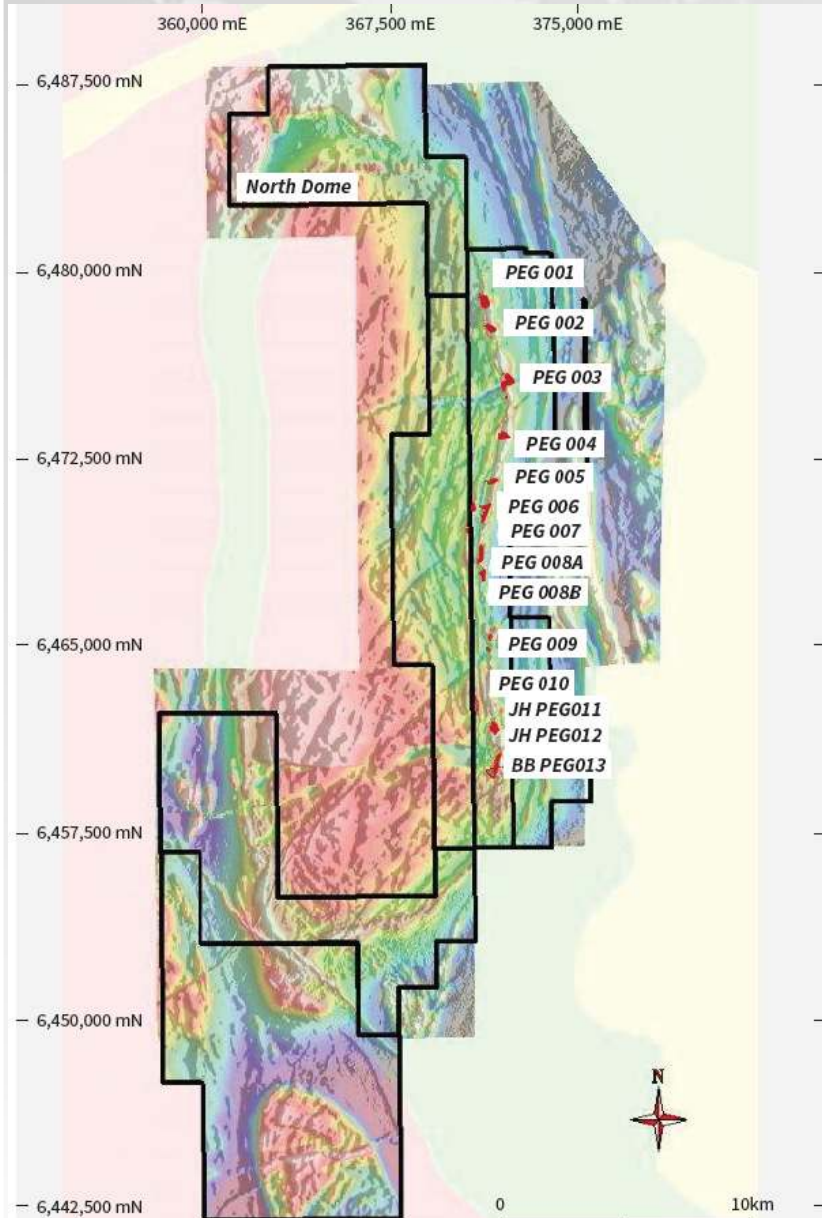
Caesium Formate

- Lubricant in high temperature/high pressure oil and gas drilling,
 - Ensures faster completion times and
 - higher production rates
- The two main producers of Pollucite:
 - TANCO mine, CABOT Canada, produces sufficient ore to generate approximately 8,400bbl CsFm and a lesser amount of Cs chemicals
 - Bikita Mine in Zimbabwe (sporadic, and supplies the Cs chemical market)
- CABOT Specialty Fluids:
 - 2010-2014 (5 years) EBITDA averages US\$37 million, or \$312 million between 2004 and 2016
 - CsFm rented to oil companies including Shell, Total, Statoil, ExxonMobil and BP, used in 30 wells per year (2008-2009)



Pioneer Lithium

- 19 LCT targets identified
- Only 1 drilled to date

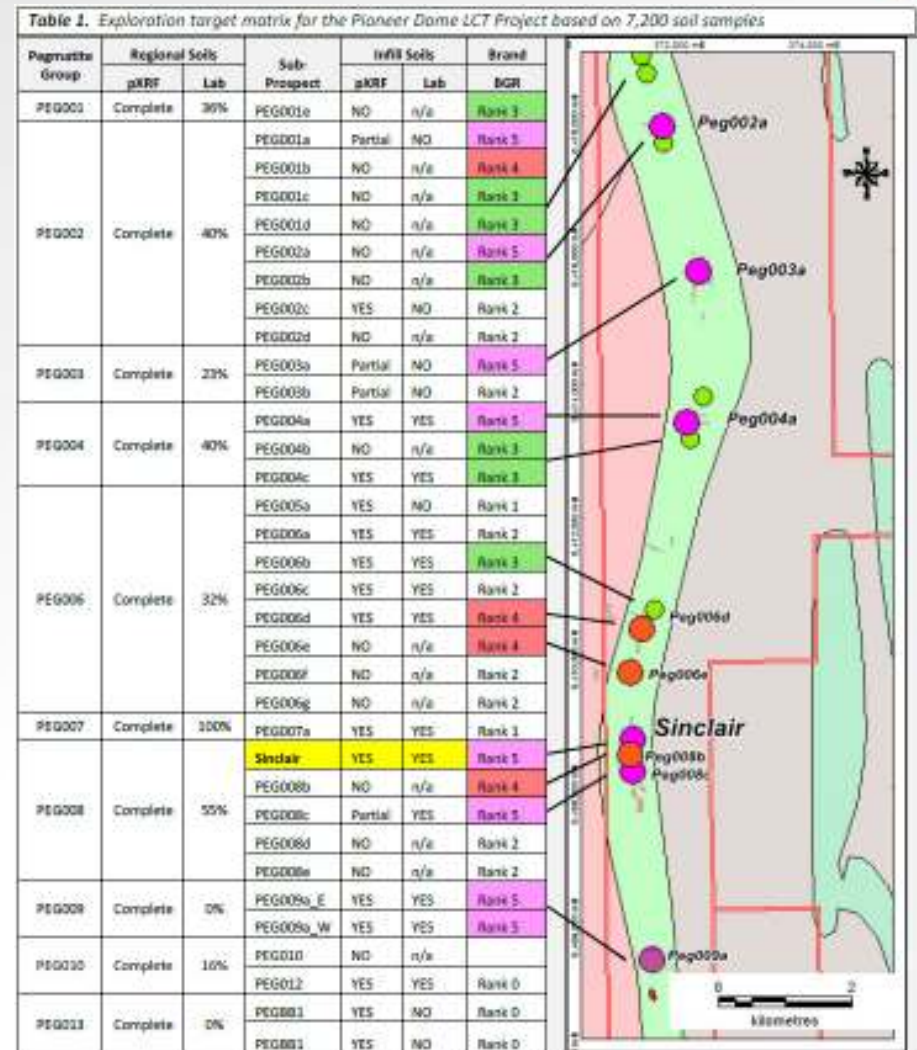


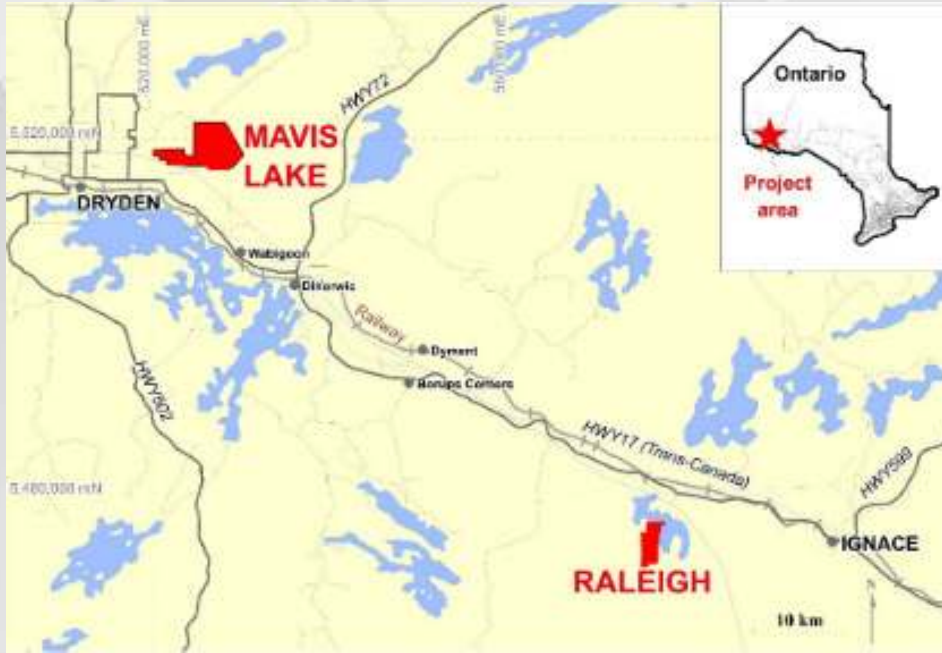
- Fully differentiated LCT Pegmatites recognised mid 2016.
- **Contains a globally significant pollucite deposit**
- Lithium (**Petalite, lepidolite, minor spodumene**) intersected in drilling. Future focus on **spodumene** targets.
- **Lepidolite** widespread
 - PEG009 Farm-in agreement with Lepidico (ASX: LPD)
Gives L-Max® exposure
 - Much Chinese lithium derived from lepidolite
- **Petalite** with minor spodumene is evident at the Sinclair Caesium Zone.
- Key drilling intersections include:
 - PDRC067: 11m at 2.63% Li₂O from 44m
 - PDRC085: 6m at 3.66% Li₂O from 47m
 - PDRC114: 19m at 1.77% Li₂O from 39m
 - PDRC115: 17m at 1.48% Li₂O from 35m
 - PDRC116: 20m at 2.48% Li₂O from 36m

Are we going to find anything more?

- An initial \$3.0m drilling campaign planned.
- EIS (State Funding) award of \$112,050
- Drill ready targets include:
 - PEG003 (1.5km long)
 - PEG004
 - PEG008 (2.5km long)
 - PEG009 (Lepidico funds drilling/exposure to L-Max®)
- Due to target size – drill directly for spodumene; and look for caesium vectors
 - The world’s only two other producing caesium mines (Tanco and Bikita) each have multiple caesium zones
- Proprietary geochemical work + geological mapping provides vectors for caesium
 - Rank 5 targets indicate distal environment – most prospective for caesium deposits
 - Rank 3-4 targets – more proximal - prospective for lithium

Caesium and Lithium Targets





Canada Spodumene

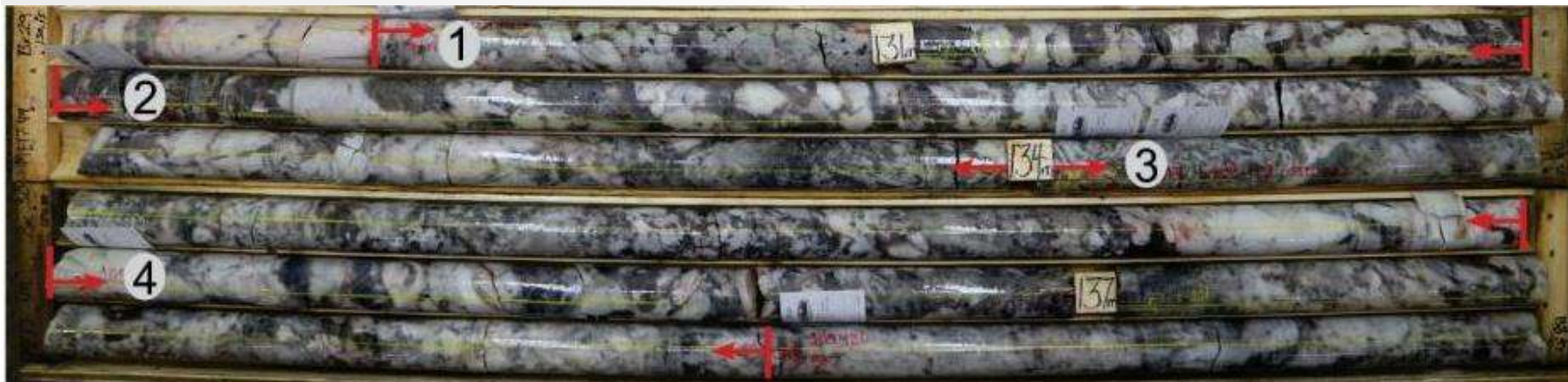
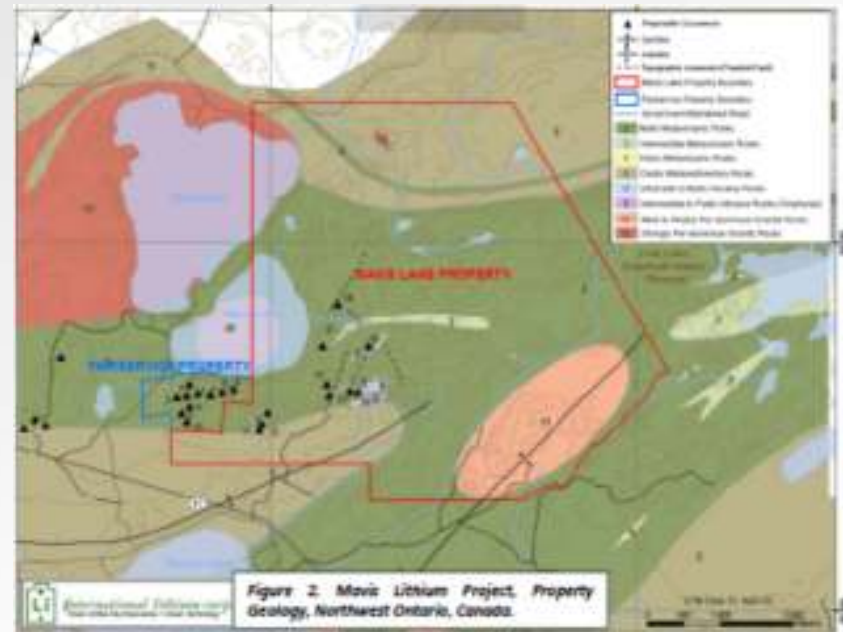
Canada Spodumene

Mavis Lake Project, Canada..



Project Details

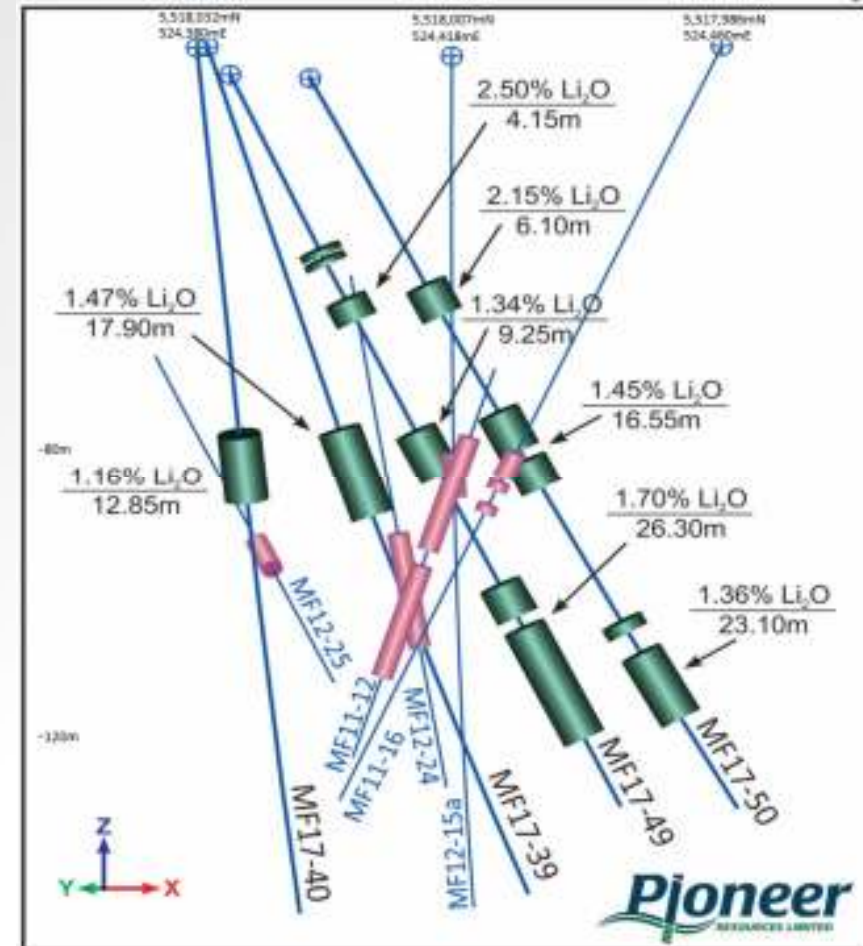
- PIO earning up to 80% ownership in the project from International Lithium Corp. (TSXV: ILC)
- Low geological risk – most pegmatites have spodumene mineralisation
- Project tenements are adjacent to the Trans Canadian highway and rail



Canada Lithium: Spodumene

2017 Drilling Results: 3 sheets of pegmatite identified

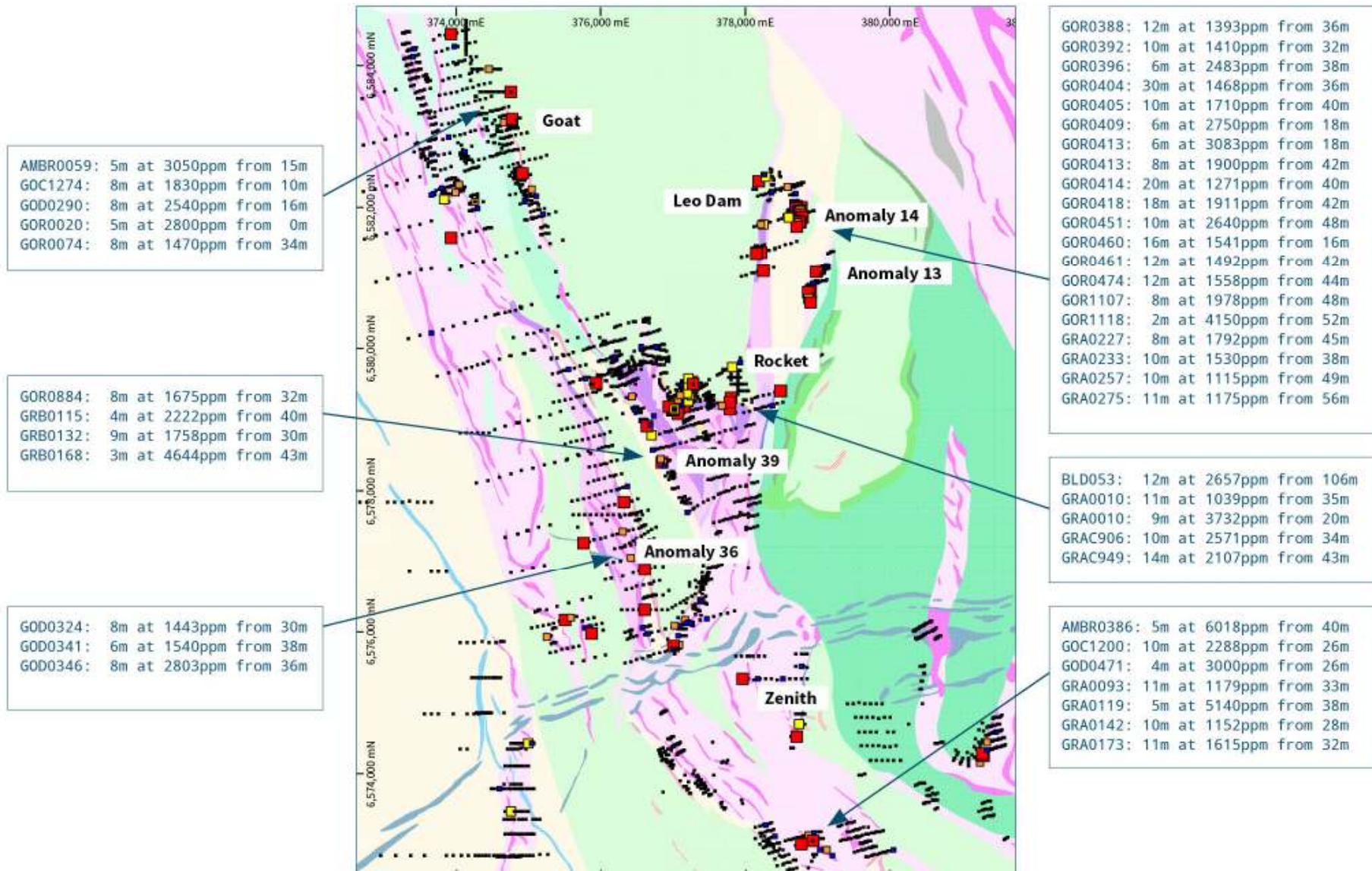
- MF17-39: 17.90m at 1.47% from 80.00m
- MF17-40: 12.85m at 1.16% from 80.05m;
- MF17-49: 26.30m at 1.70% from 111.9m including 7.70m at 2.97% from 130.5m
- MF17-50: 16.55m at 1.45% from 74.55m and 23.10m at 1.36% from 122.00m



Blair Dome Cobalt

Cobalt – Blair Dome

Prospective for cobalt which has been detected in previous drilling



Drilling to Commence This Week



Rocket Prospect

BLD053: 12m at 2657ppm Co from 106m
 GRAC949: 14m at 2107ppm Co from 43m
 GRAC906: 10m at 2571ppm Co from 34m

Anomaly 14 Prospect

GOR0451: 10m at 2640ppm Co from 48m
 GOR0404: 30m at 1468ppm Co from 36m*
 GOR0409: 6m at 2750ppm Co from 18m
 GOR0413: 6m at 3083ppm Co from 18m*
 GOR0418: 18m at 1911ppm Co from 42m*

Skidman Trend

AMBR0059: 5m at 3050ppm Co from 15m
 GOD0290: 8m at 2540ppm Co from 16m

Regional

GOD0346: 8m at 2803ppm Co from 36m
 AMBR0386: 5m at 6018ppm Co from 40m
 GRA0118: 5m at 5140ppm Co from 38m

Comparable Cobalt Projects

Reported Lateritic Cobalt Deposit Size

Company	Tonnes	Grade*	Location
	(mt)	Co	
Ardea	805	500 ppm	Kalgoorlie, WA
includes	64	1300 ppm	
CleanTeq	109	1000 ppm	Syerston, NSW
GME	108	600 ppm	Leonora, WA
Conico	32	1200 ppm	Norseman, WA
Platina	9	1500 ppm	Owendale, NSW
Augur	16	500 ppm	Homeville, NSW
Cougar	10	700 ppm	Leonora, WA

Grades appropriately rounded from reported Co %

Kangan Gold

Kangan Gold



Pioneer's Geological Consultants are on site

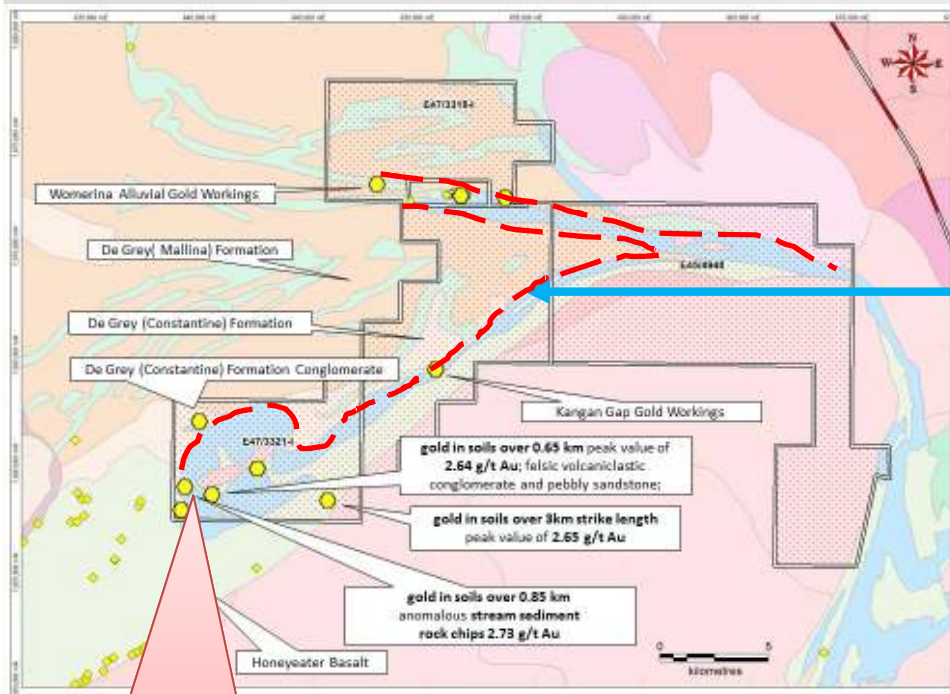
Visited a small outcrop of Mt Roe Basalt mapped by GSWA. Initial observations include:

- polymictic conglomerate identified in the field at this location over an 800m strike length
- Adjacent anomalous soil geochemistry and rock chips recorded in Technical Reports by previous explorers.

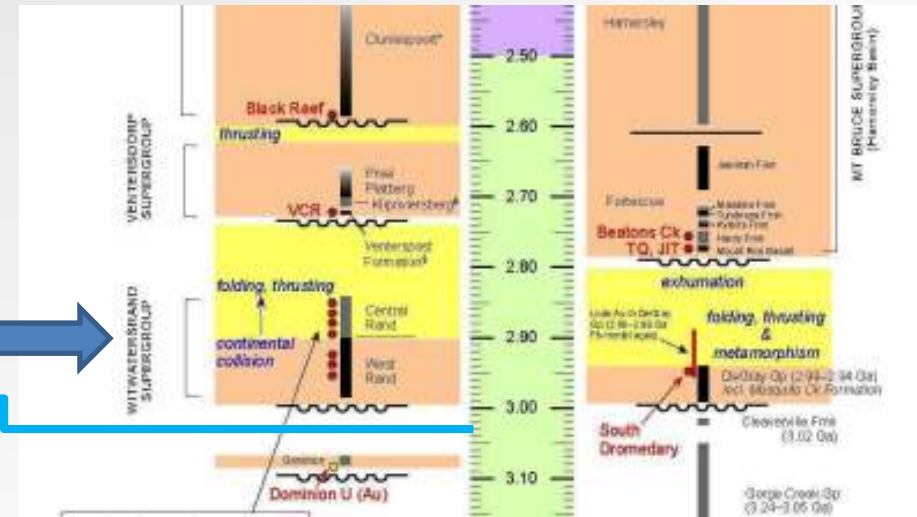


Kangan Gold

Exploration Concept



Prior photographs from here



Comparison between Hammersley Basin and Witwatersrand Basin tectono-stratigraphy

(after Nelson et al., 1992, 1999; Martin et al., 1998; Thorne and Trendall, 2001); From NI 43-101 Technical Resource Report Beaton's Creek Gold Project Pilbara Region Australia (Novo Resources Corp, 31 August 2015)

To Finish

Value Proposition

- ❑ ***Develop Sinclair Zone Pollucite (Caesium) Resource***
- ❑ ***Next Value Driver will be the Discovery of Spodumene***
 - ❑ Pioneer Dome WA: - Drill Lithium (Spodumene and Lepidolite) Targets
 - ❑ Watch for Caesium vectors and drill for Pollucite

- ❑ ***In Addition.....***
 - ❑ Mavis Lake, Raleigh, Canada: - Drill Lithium (Spodumene) targets in winter
 - ❑ Blair Dome / Golden Ridge: - Drilling this week
 - ❑ The Kangan Gold Project, and exposure to the Pilbara (Wits2) concept.

References

- **References**
- Blair Dome: 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
- 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, 20 June 2017, 9 October 2017, 30 October 2017, 2 November 2017
- Kangan: 6 October 2017, 24 October 2017

- Černý, P. and Ercit, T.S. (2005): The Classification of Granitic Pegmatites Revisited. *The Canadian Mineralogist Vol. 43, pp. 2005-2026.*
- Selway, J.B., Breaks, F.W. and Tindle, A.G. (2005): A Review Of Rare-Element (Li-Cs-Ta) Pegmatite Exploration Techniques For The Superior Province, Canada And Large Worldwide Tantalum Deposits. *Exploration and Mining Geology, Vol 14, Nos 1-4 pp, 1-30.*
- London, D. (2008): Pegmatites. *The Canadian Mineralogist Special Publication 10.*

- Plus Company quarterly reports.

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

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