

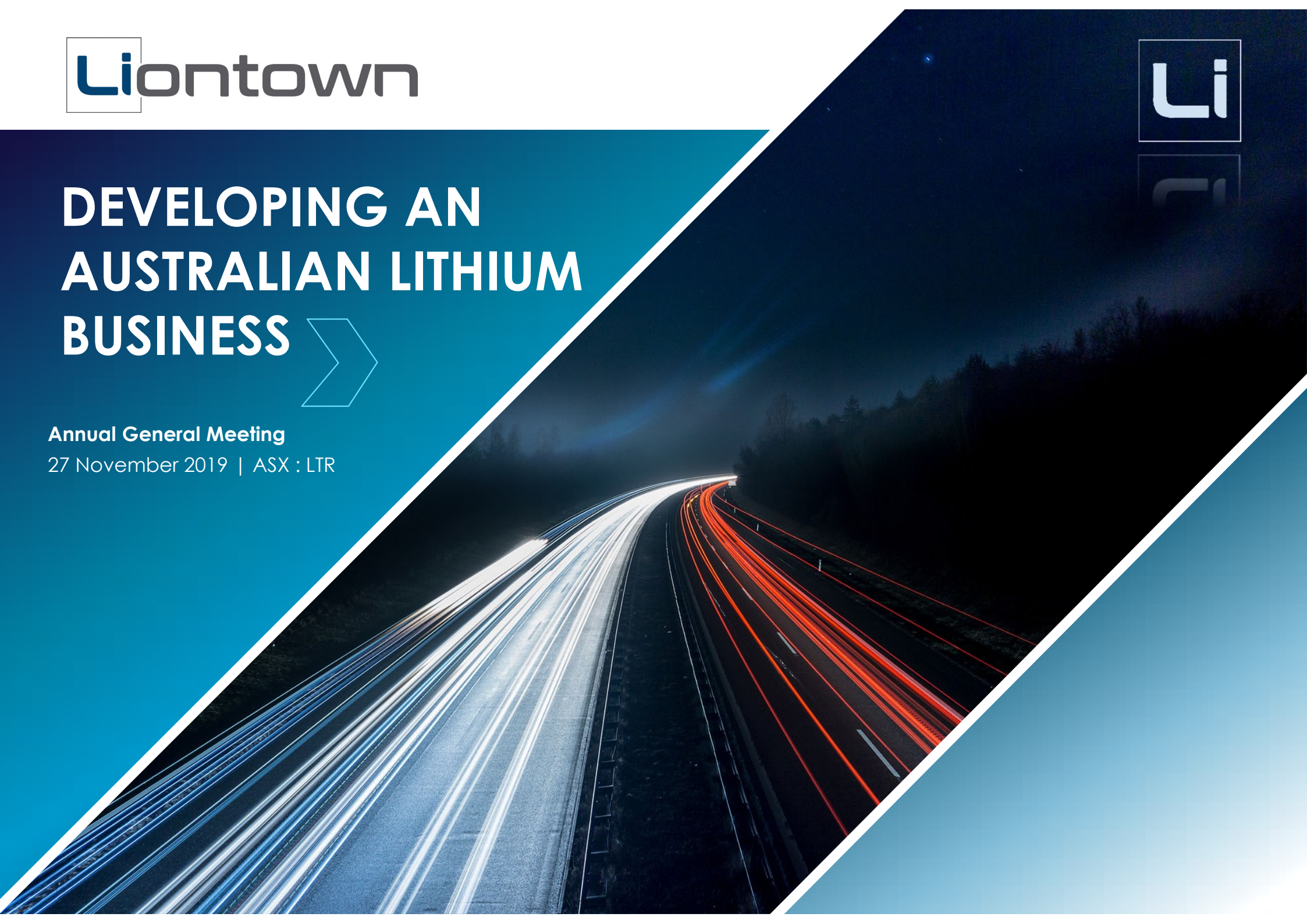


# DEVELOPING AN AUSTRALIAN LITHIUM BUSINESS



**Annual General Meeting**

27 November 2019 | ASX : LTR







# Important Information

## Forward Looking Statements

This Presentation may include statements that could be deemed "forward-looking statements". Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those expected in the forward-looking statements or not take place at all.

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## Competent Person Statement

The Information in this report that relates to Mineral Resources for the Kathleen Valley Project is extracted from the ASX announcement "Kathleen Valley Lithium Resource jumps 353% to 74.9Mt @ 1.3% Li<sub>2</sub>O" released on the 9<sup>th</sup> July 2019 which is available on [www.ltresources.com.au](http://www.ltresources.com.au).

The Information in this report that relates to Metallurgy for the Kathleen Valley Project is extracted from the ASX announcement "Highly encouraging results from initial metallurgical test work at the Kathleen Valley Lithium-Tantalum Project, WA" and "Kathleen Valley Lithium Resource jumps 353% to 74.9Mt @ 1.3% Li<sub>2</sub>O" released on the 12<sup>th</sup> November 2018 and 9<sup>th</sup> July 2019 respectively which are available on [www.ltresources.com.au](http://www.ltresources.com.au).

The Information in this report that relates to the Scoping Study for the Kathleen Valley Project is extracted from the ASX announcement "Kathleen Valley Scoping Study confirms potential for robust new WA lithium mine development" released on the 29<sup>th</sup> January 2019 which is available on [www.ltresources.com.au](http://www.ltresources.com.au).

The Information in this report that relates to Exploration Results for the Kathleen Valley Project is extracted from the ASX announcements "Latest drilling extends thick, high-grade zone at Kathleen Valley further north as strong assay results continue",



"Spectacular intercept of 90m @ 1.3% Li<sub>2</sub>O at Kathleen Valley" and "Work commences on Kathleen Valley Resource update as drilling continues to deliver wide, high grade lithium results", "Further spectacular drill intercepts returned from Kathleen Valley", "Exceptional new thick, high-grade drill results confirm potential for substantial resource growth at Kathleen Valley" released on the 9<sup>th</sup> May 2019, 20<sup>th</sup> May 2019, 3<sup>rd</sup> June 2019, 24<sup>th</sup> June 2019 and 5<sup>th</sup> November respectively which are available on [www.ltresources.com.au](http://www.ltresources.com.au).

The Information in this report that relates to Exploration Targets is based on and fairly represents information and supporting documentation prepared by Mr David Richards, who is a Competent Person and a member of the Australasian Institute of Geoscientists (AIG). Mr Richards is a full-time employee of the company. Mr Richards has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Richards consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Information in this report that relates to Mineral Resources for the Buldania Project is extracted from the ASX announcement "Liontown announces maiden Mineral Resource Estimate for its 100%-owned Buldania Lithium Project, WA" released on the 8<sup>th</sup> November 2019 which is available on [www.ltresources.com.au](http://www.ltresources.com.au).

The Information in this presentation that relates to the Exploration Results for the Buldania Project is extracted from the ASX announcements entitled "More strong assays confirm significant lithium discovery at Buldania Project in WA", "Liontown confirms second significant lithium discovery in WA with new thick, high-grade hits at Buldania", "Outstanding new drilling results continue to expand lithium mineralisation at Buldania", "Liontown further expands prospective lithium footprint at Buldania in WA's South-Eastern Goldfields", "Latest assays confirm lithium mineralisation over >1.3km strike length at the Buldania Lithium Project in WA", "Liontown expands lithium footprint at Buldania in WA's South-Eastern Goldfields", "Initial assays extend mineralised trend at Buldania", "Further thick lithium intercepts from drilling at Buldania" and "Liontown on track for maiden Resource at Buldania following receipt of further high-grade lithium assays" released on the 26<sup>th</sup> March 2018, 19<sup>th</sup> September 2018, 1<sup>st</sup> November 2018, 13<sup>th</sup> November 2018, 20<sup>th</sup> November 2018, 14<sup>th</sup> March 2019, 22<sup>nd</sup> July 2019, 29<sup>th</sup> July 2019 and 17<sup>th</sup> September 2019 respectively which are available on [www.ltresources.com.au](http://www.ltresources.com.au).

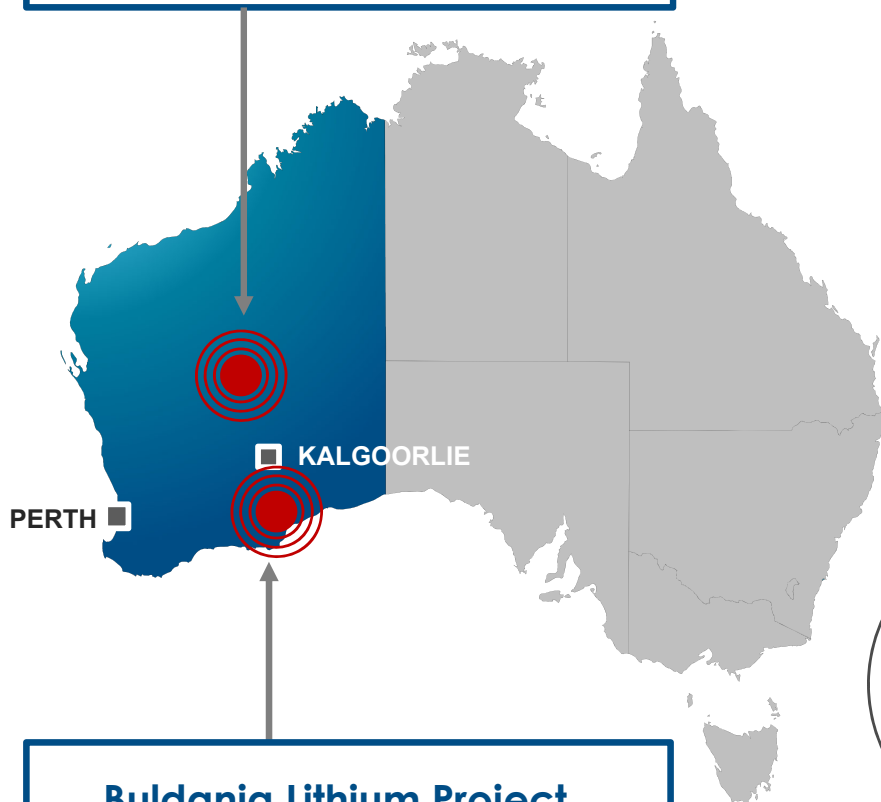
The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.



# A Next Generation Lithium Producer



## Kathleen Valley Lithium Project



## Buldania Lithium Project

### Low Risk

- Western Australia
- Granted Mining Leases
- Well funded



### Location

- Established mining region
- Modern infrastructure



### Quality

- Kathleen Valley – 5<sup>th</sup> biggest resource in Australia
- 83% M&I



### Ownership

- 100%
- No third party obligations (excluding royalties)



### Going Forward

- Kathleen Valley PFS due early Dec 2019
- Resource expansion drilling
- Kathleen Valley DFS commences 2020





# 2019 achievements have positioned Lontown well for the future



## 1 Kathleen Valley Lithium Project

Updated Mineral Resource:

**74.9Mt @ 1.3%  $\text{Li}_2\text{O}$  and 140ppm  $\text{Ta}_2\text{O}_5$**

- 353% increase from the maiden MRE
- Thick, high-grade mineralisation intersected over ~1.4km strike length with the system open to north and at depth
- Latest results highlight the potential to substantially increase the Kathleen Valley MRE
- Resource extension drilling to continue into 2020
- Metallurgical test work delivers +6%  $\text{Li}_2\text{O}$  concentrate
- A Scoping Study based on the maiden MRE confirmed the potential viability of a standalone mining and processing operation
- Pre-Feasibility Study imminent
- Multiple opportunities to enhance financial metrics

## 2 Buldania Lithium Project

Maiden Mineral Resource:

**14.9Mt @ 0.97%  $\text{Li}_2\text{O}$  and 44ppm  $\text{Ta}_2\text{O}_5$**

- 60% classified as Indicated.
- The Mineral Resource remains open along strike and at depth.
- Large, prospective land holding

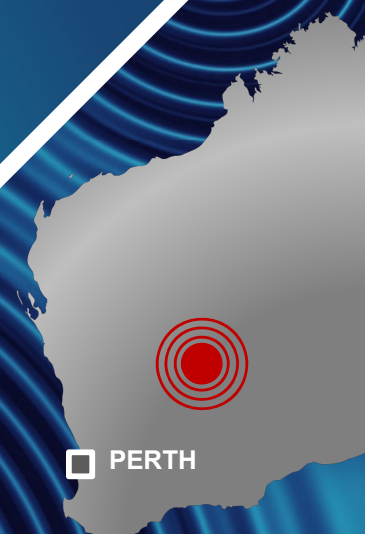






# KATHLEEN VALLEY LITHIUM PROJECT

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# Project Overview



JULY 2019 RESOURCE

1

**74.9Mt @ 1.3%  $\text{Li}_2\text{O}$  and 140ppm  $\text{Ta}_2\text{O}_5$**

83% Measured and Indicated

353% increase on maiden 2018 MRE



2

PFS scheduled for release in Dec 2019

3

Conventional mining and processing

4

Test work confirms ~6% DMS spodumene concentrate – feasibility-level test work ongoing

5

Scoping Study (January 2019) on maiden MRE confirms potential for standalone mining operation

6

Exploration Target of **25 – 50Mt @ 1.2-1.5%  $\text{Li}_2\text{O}^*$**  in addition to current MRE

\*The potential grade and tonnage of the Exploration Target referred to above is conceptual in nature and there has been insufficient exploration to estimate a Mineral Resource. It is uncertain if further exploration will result in the estimation of a Mineral Resource. See Appendix (slide 36) for full explanation of assumptions used to estimate ranges.

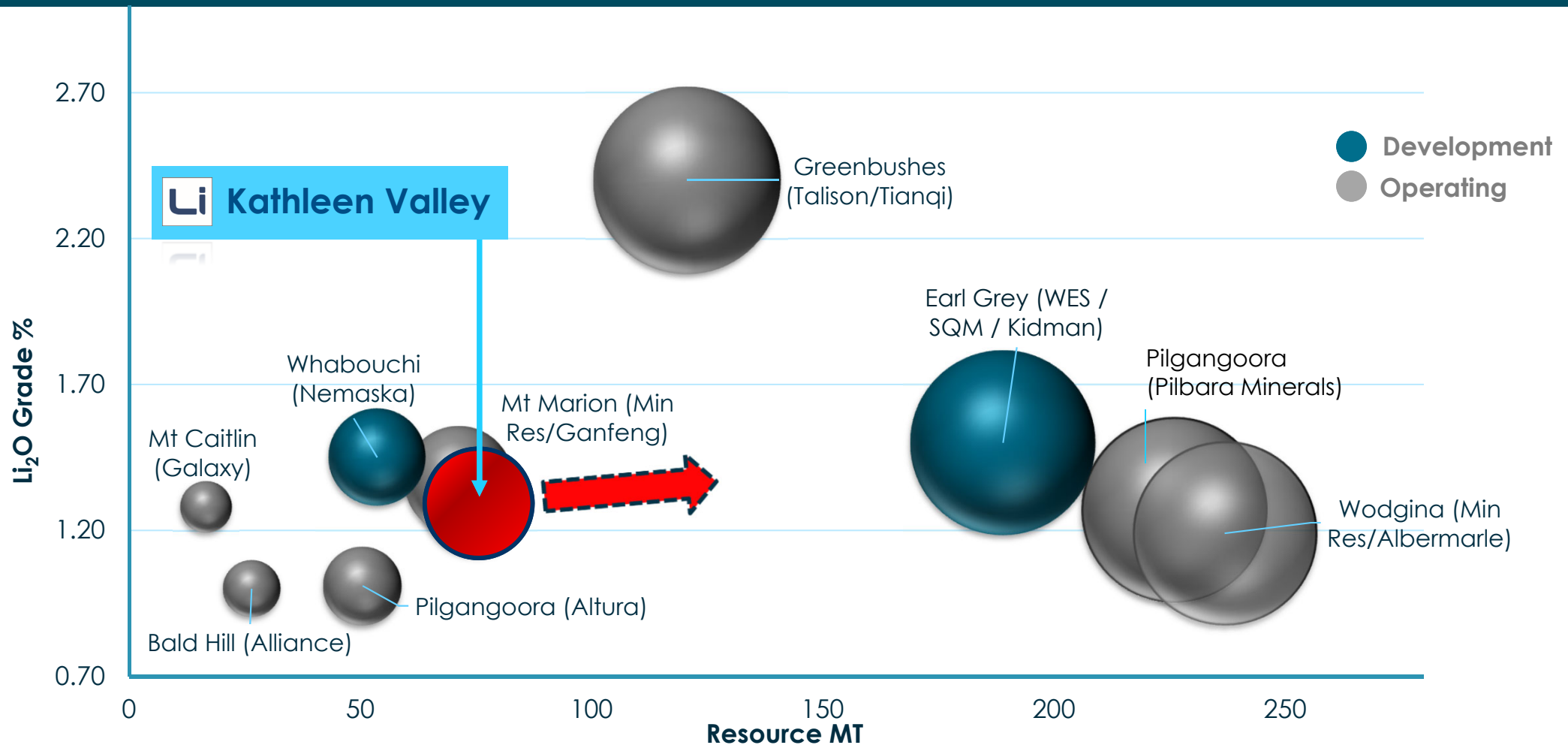




# A Globally Significant Lithium Deposit

## Hard Rock Lithium Operations and Advanced Projects

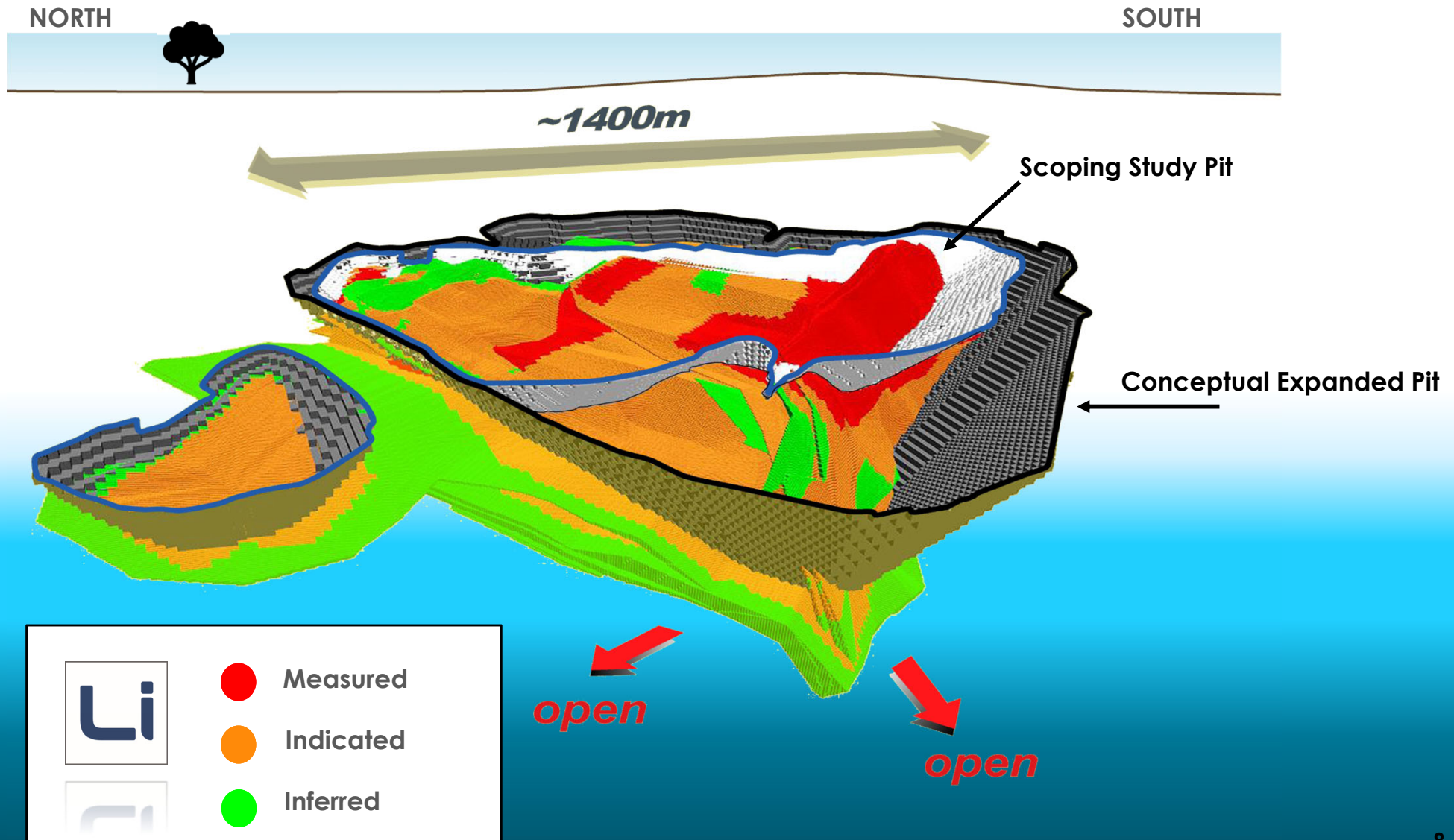
Western World | Spodumene Dominant | Tonnes x Grade | Li<sub>2</sub>O Only



Refer to Appendix on Slide 34 for Peer Comparison Information including Resource Classifications

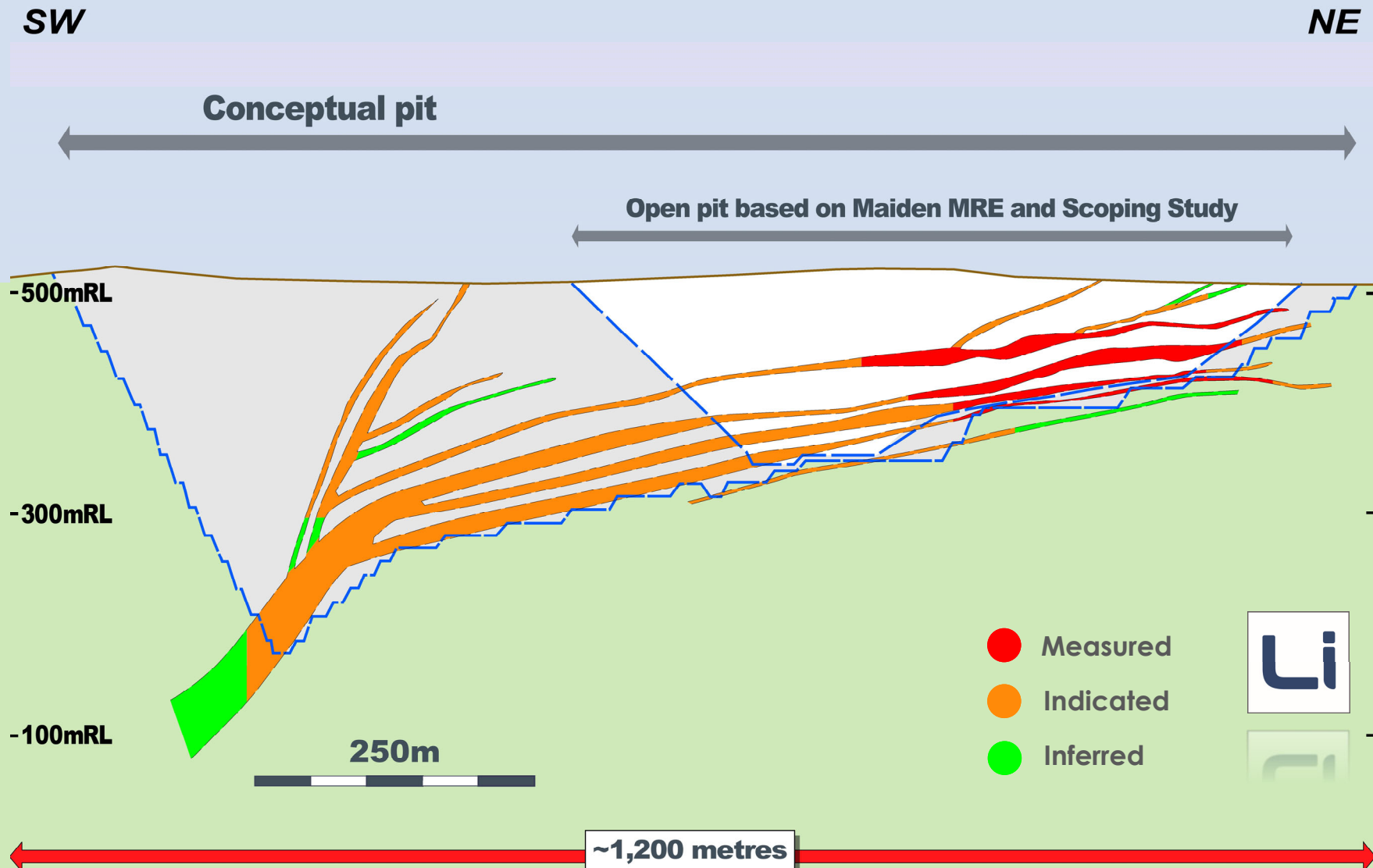


>3x Increase in MRE supports  
potential for larger pit





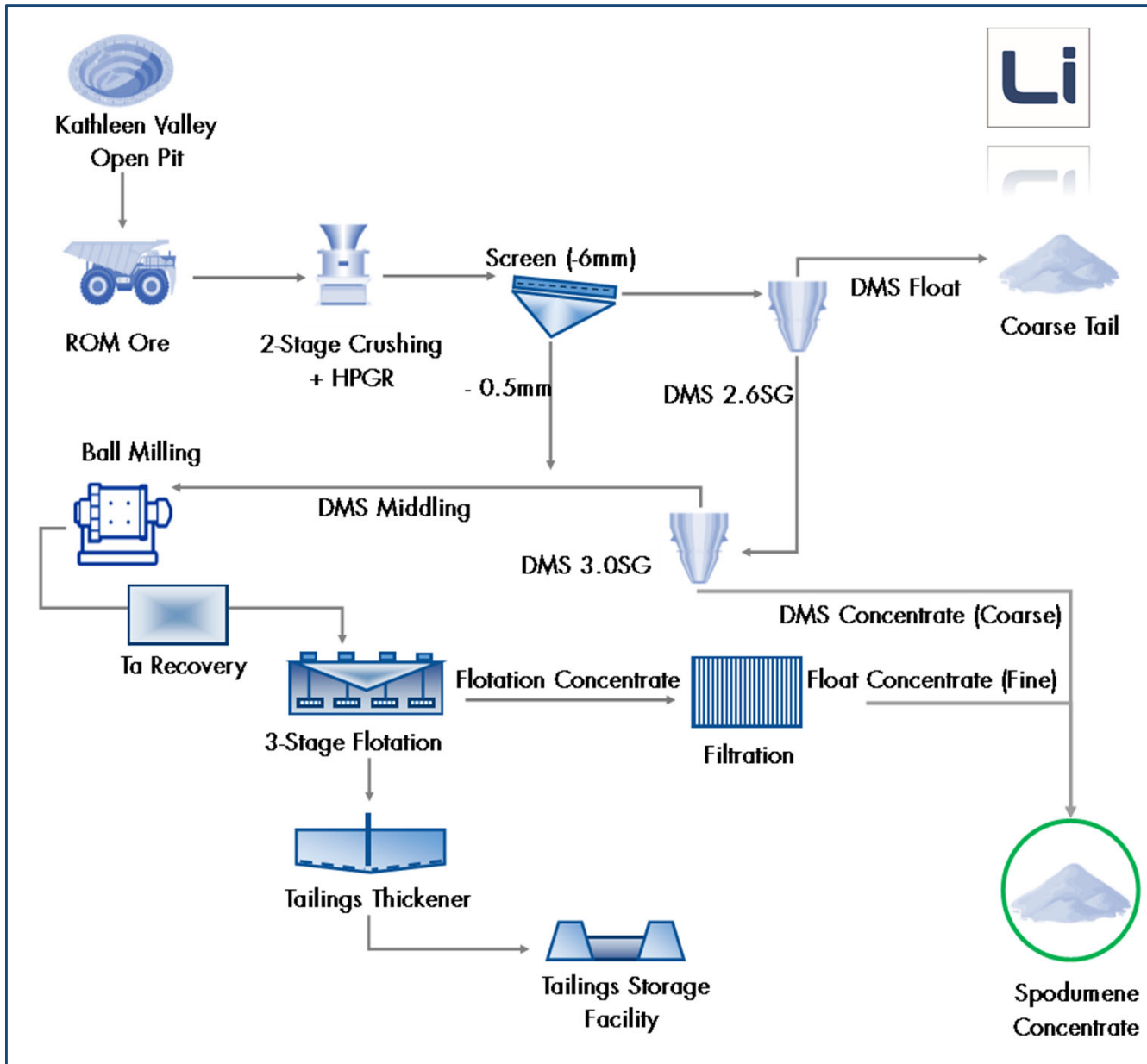
>3x Increase in MRE supports potential for larger pit







# Metallurgy and Flowsheet



Scoping Study confirms saleable concentrate

High priority on getting metallurgy and processing right



Results to be updated in Pre-Feasibility Study



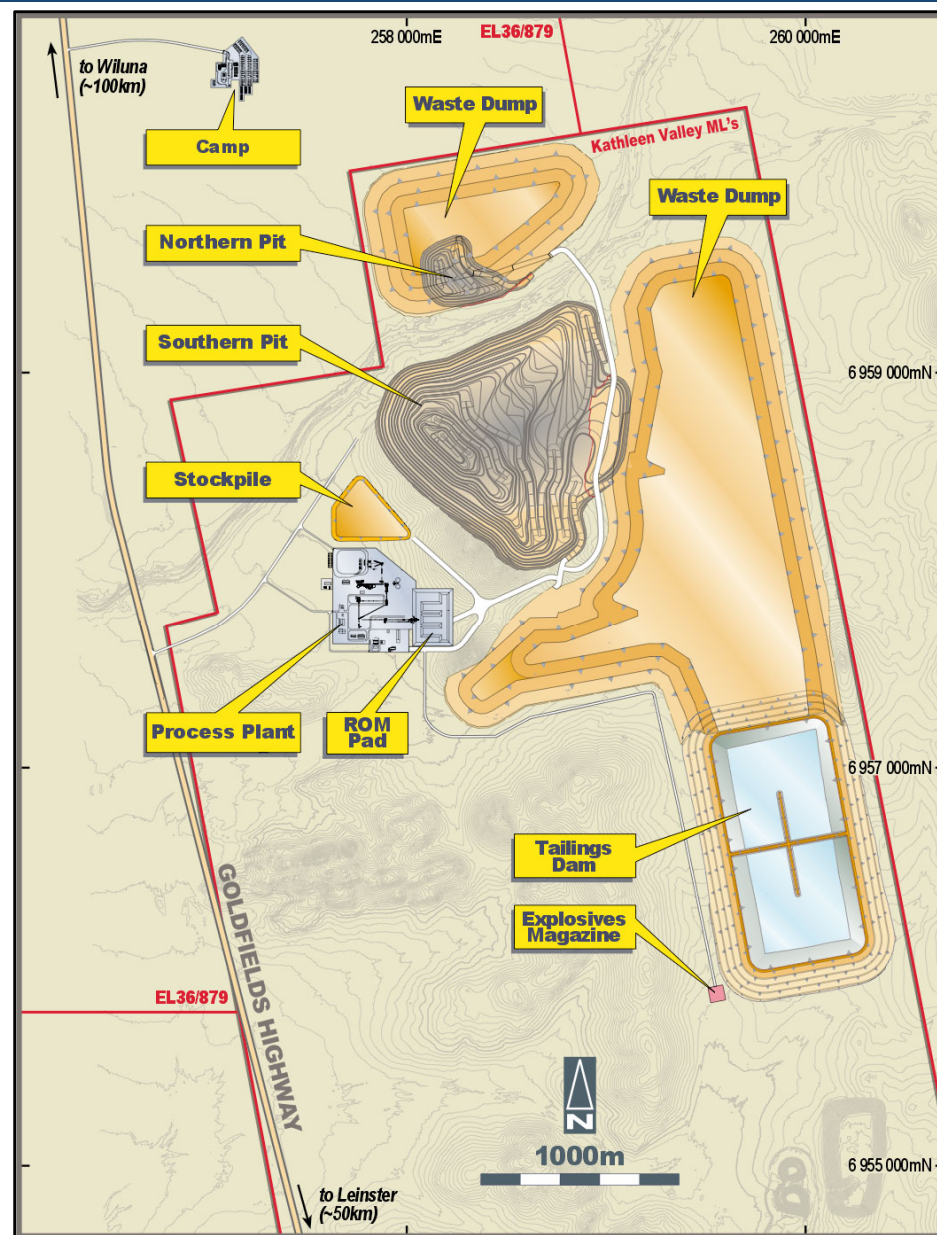


# Scoping Study on maiden MRE supports potential to develop a standalone Lithium Mining and Processing Operation

## January 2019 Study – Headline Metrics

NPV <sub>(8%, real, post tax)</sub>	A\$421M (Range of A\$316 to A\$526M)
IRR	38%
Payback	<3 years
Free Cash Flow	A\$762M
Average Cash Flow	~A\$100M per annum
Plant Capacity	2Mtpa (Li & Ta)
Annual Production	~360kt SC6
LOM SC6 PRICE	A\$900 (US\$650/t) FOB
LOM Opex	~A\$428/t SC6
Capex	~A\$232M

Scoping study prepared by Lycopodium Minerals Pty Ltd



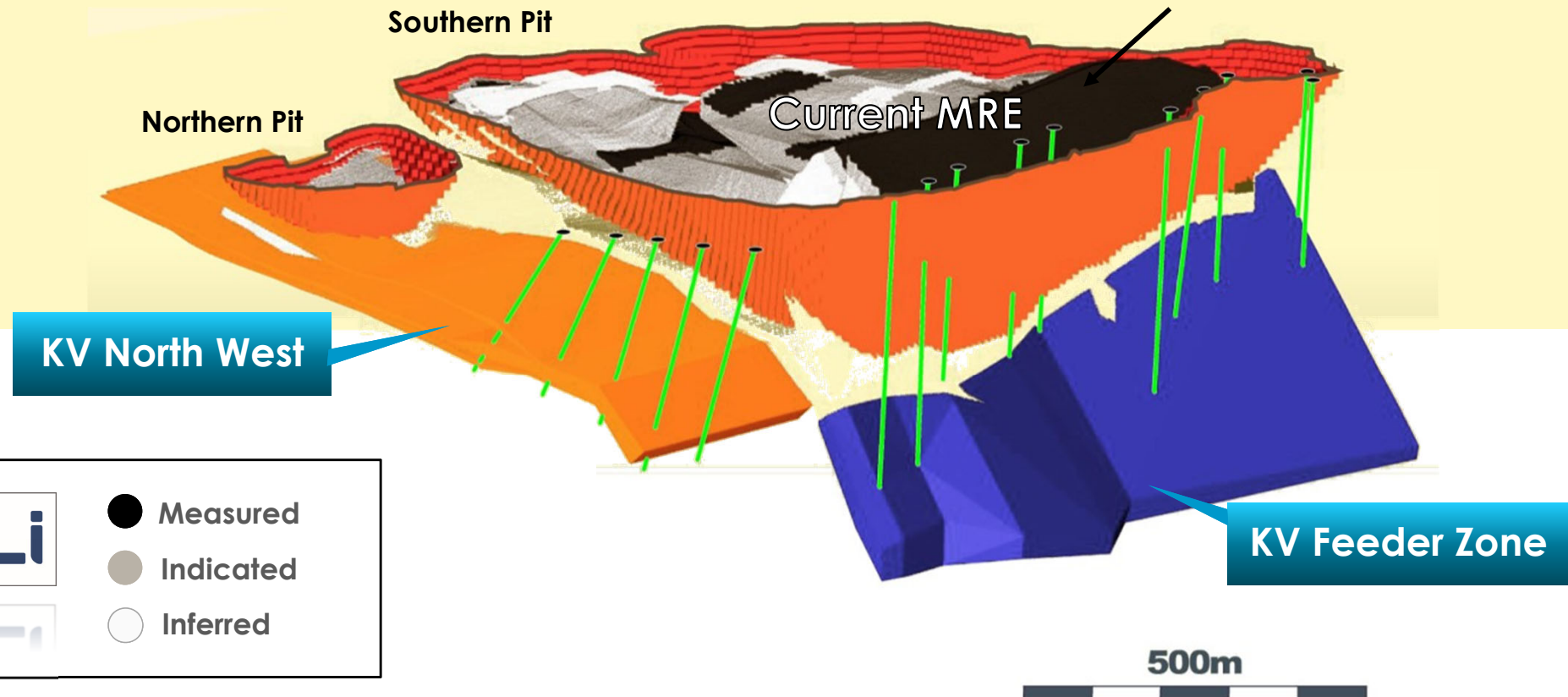


# Exploration target 25 – 50Mt @ 1.2 – 1.5% Li<sub>2</sub>O\* (15,000-25,000m drilling program in progress)

NORTH

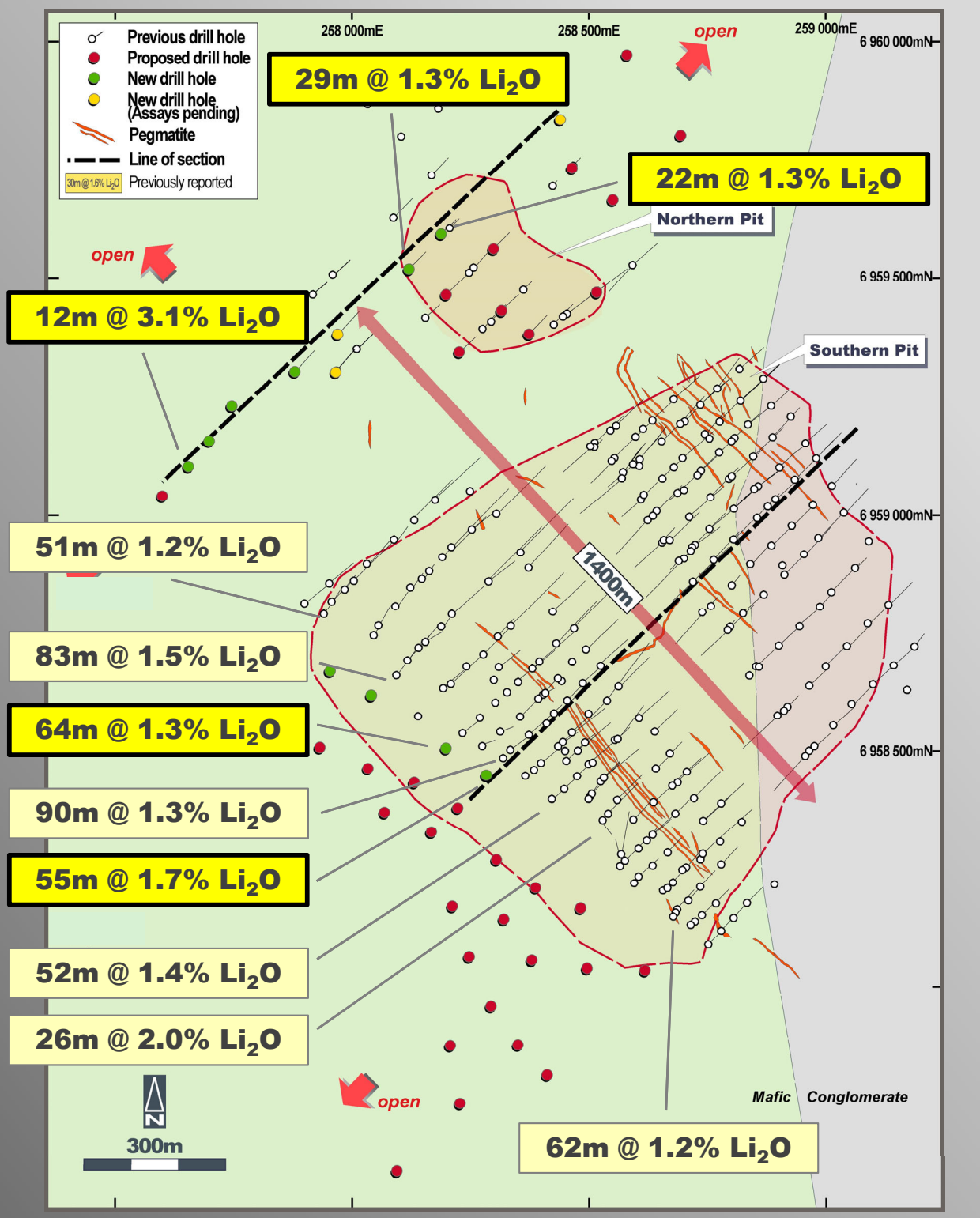
SOUTH

## Conceptual Open Pit



\*The potential grade and tonnage of the Exploration Target referred to above is conceptual in nature and there has been insufficient exploration to estimate an Mineral Resource. It is uncertain if further exploration will result in the estimation of a Mineral Resource. See Appendix (slide 36) for full explanation of assumptions used to estimate ranges.



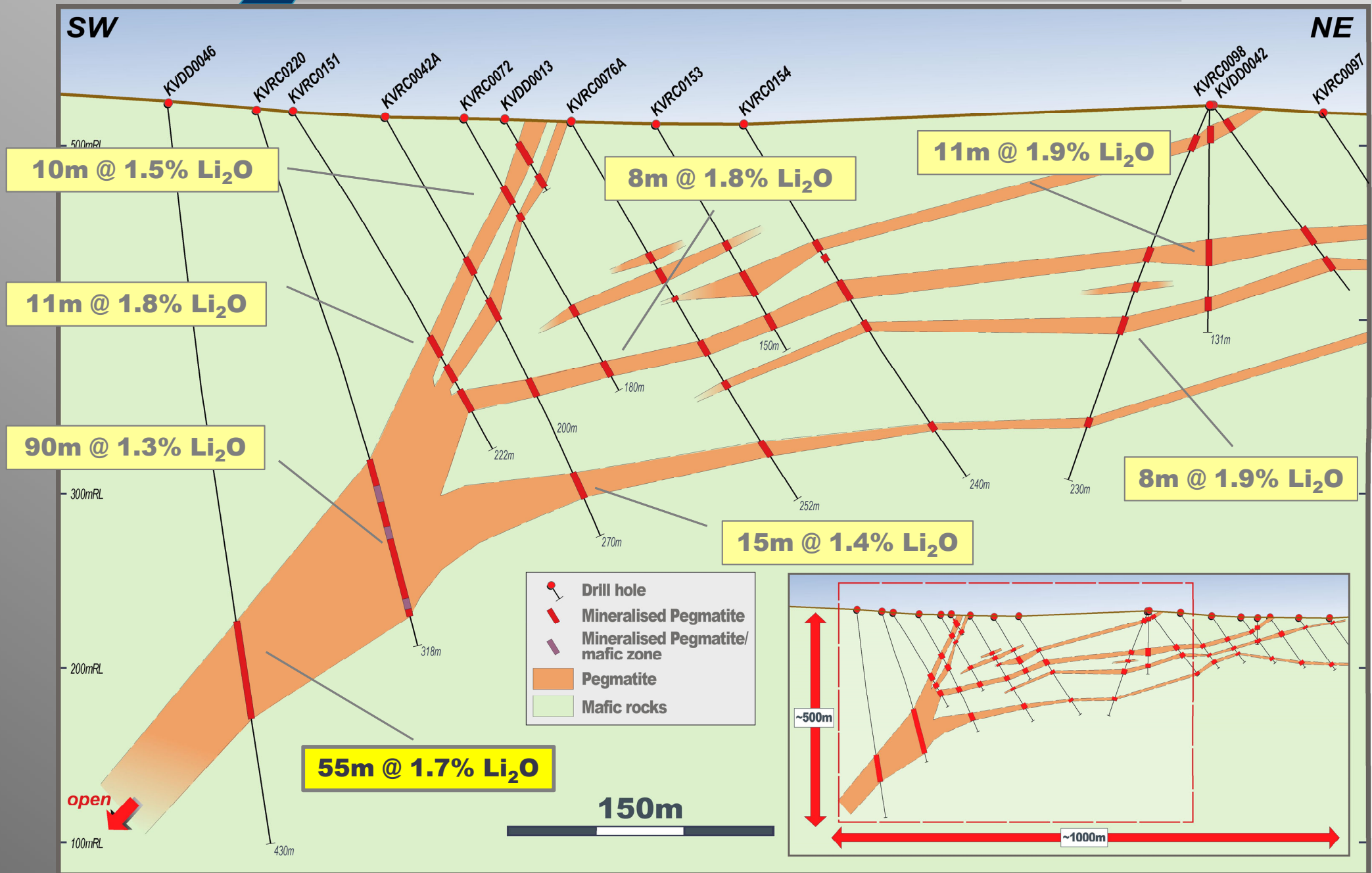


# Resource Upside

- 1 15,000-25,000m resource extension drill program in progress (3 rigs)
- 2 Targeting extension of thick (>45m), high grade, "feeder" zone.....
- 3 ...and along strike to northwest
- 4 Initial results confirm thick, high grade mineralisation extends down dip and along strike; e.g.
  - 55m @ 1.7% Li<sub>2</sub>O from 301m inc. 13m @ 2.2% Li<sub>2</sub>O from 312m
  - 12m @ 3.1% Li<sub>2</sub>O from 218m inc. 9m @ 3.8% Li<sub>2</sub>O from 219m
- 5 Drilling program to be expanded

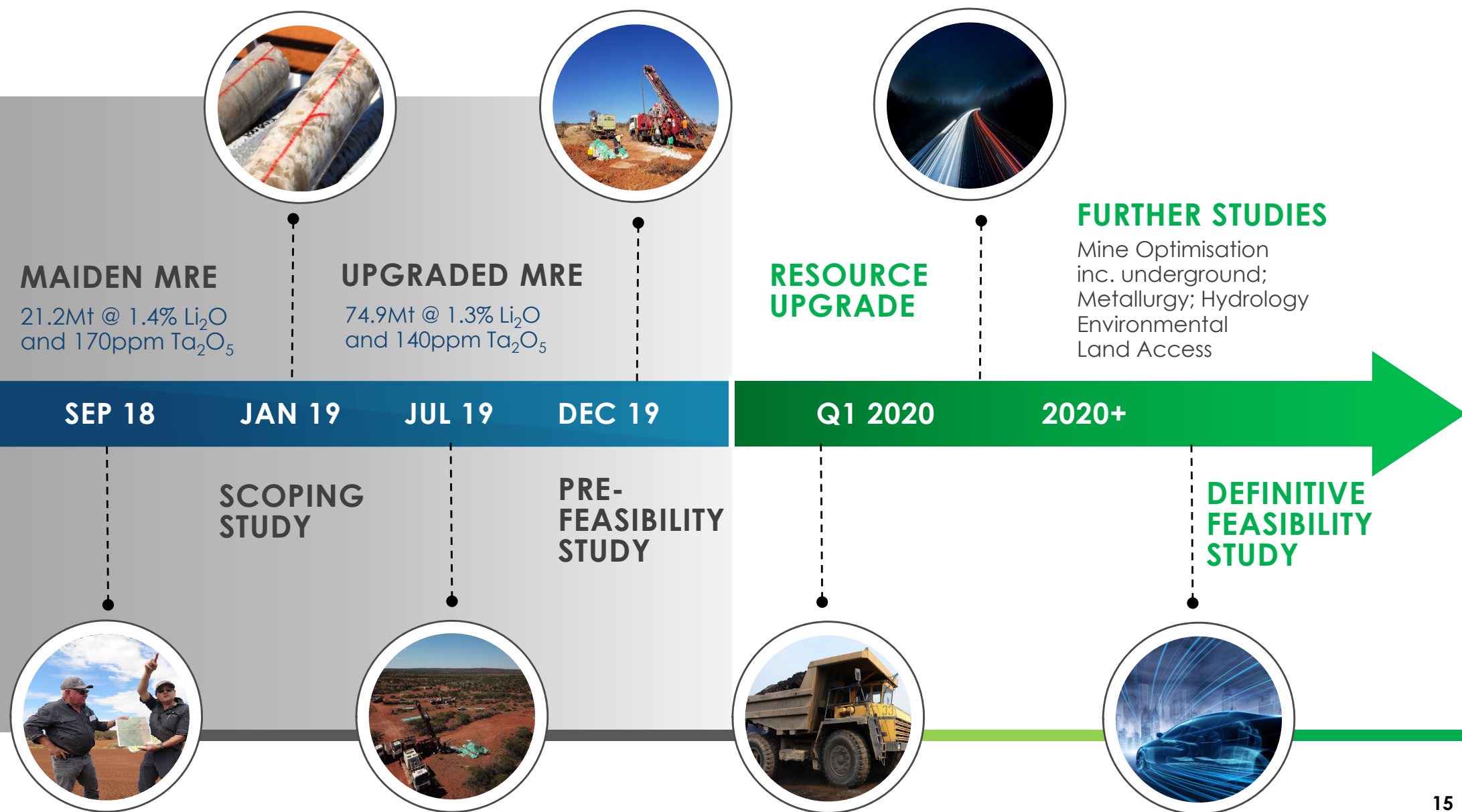


# Mineralisation open down dip





# Achievements in the last 12 months pave the way for future opportunities

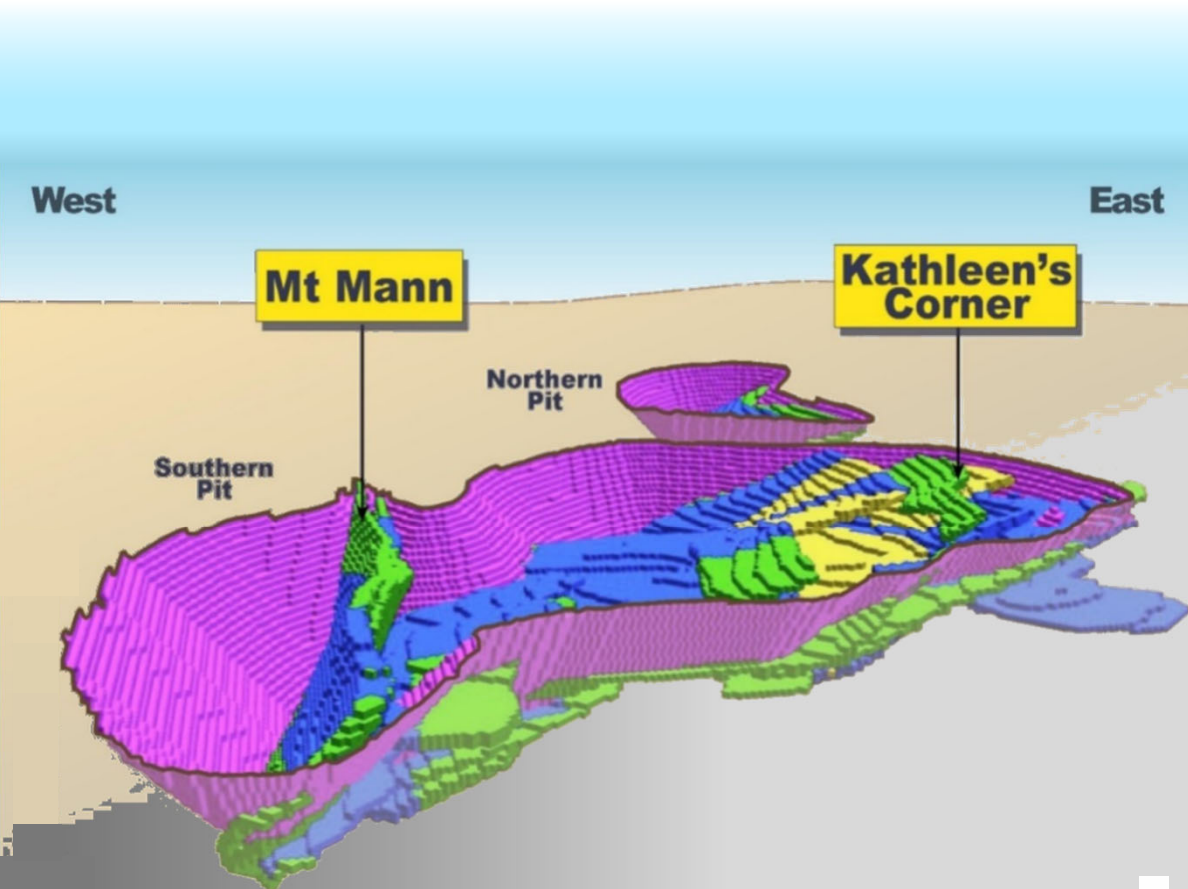




# Kathleen Valley Investment Case



**The only non-committed  
spodumene resource  
in Australia**



- ~75Mt @ 1.3% Li<sub>2</sub>O and 140ppm Ta<sub>2</sub>O<sub>5</sub>
- Conventional mining and processing
- Positive Scoping Study – PFS imminent
- Probable long life mine
- First world location and expertise
- Active, well serviced mining region
- Strong medium to long term outlook for lithium
- Expanded drilling in progress testing for additional Exploration Target of 25-50Mt @ 1.2 – 1.5% Li<sub>2</sub>O\*



**Experienced, well-credentialed  
management team**





# BULDANIA LITHIUM PROJECT

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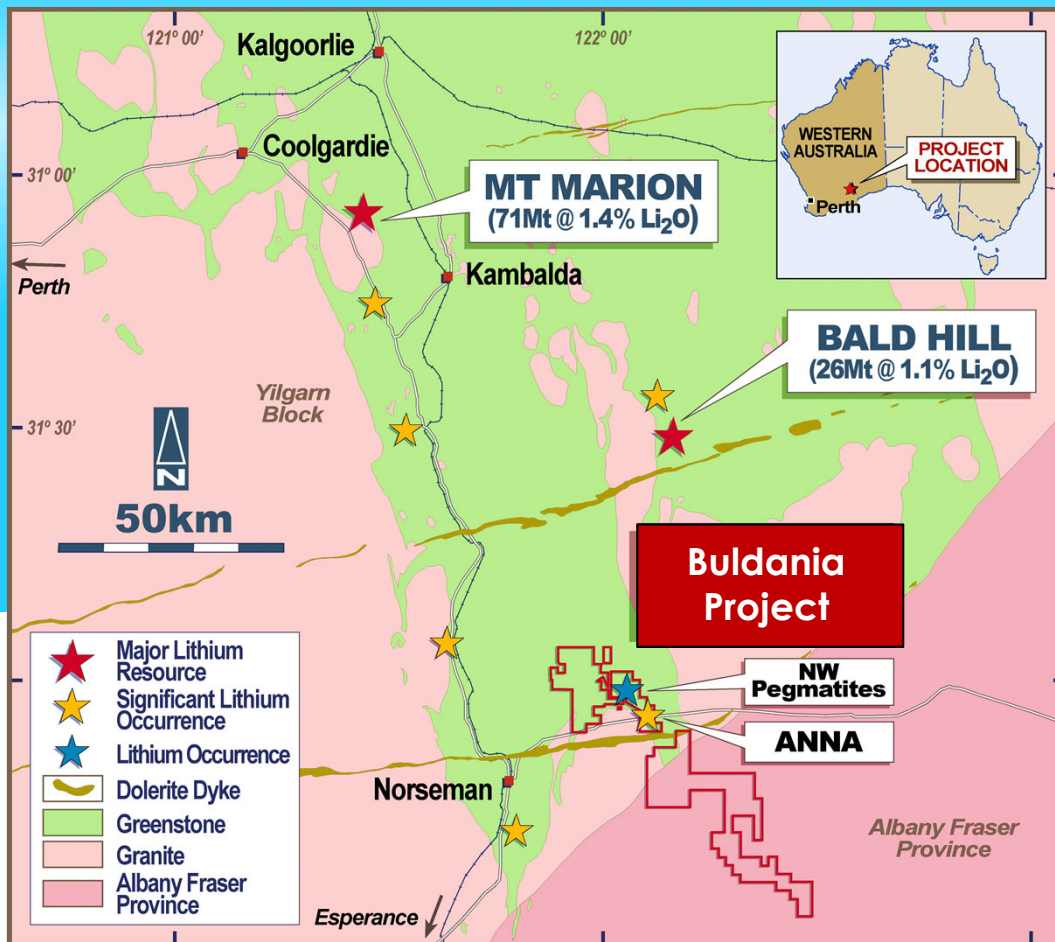




# Project Overview



Buldania is Located in a Lithium-Rich Mineral Province



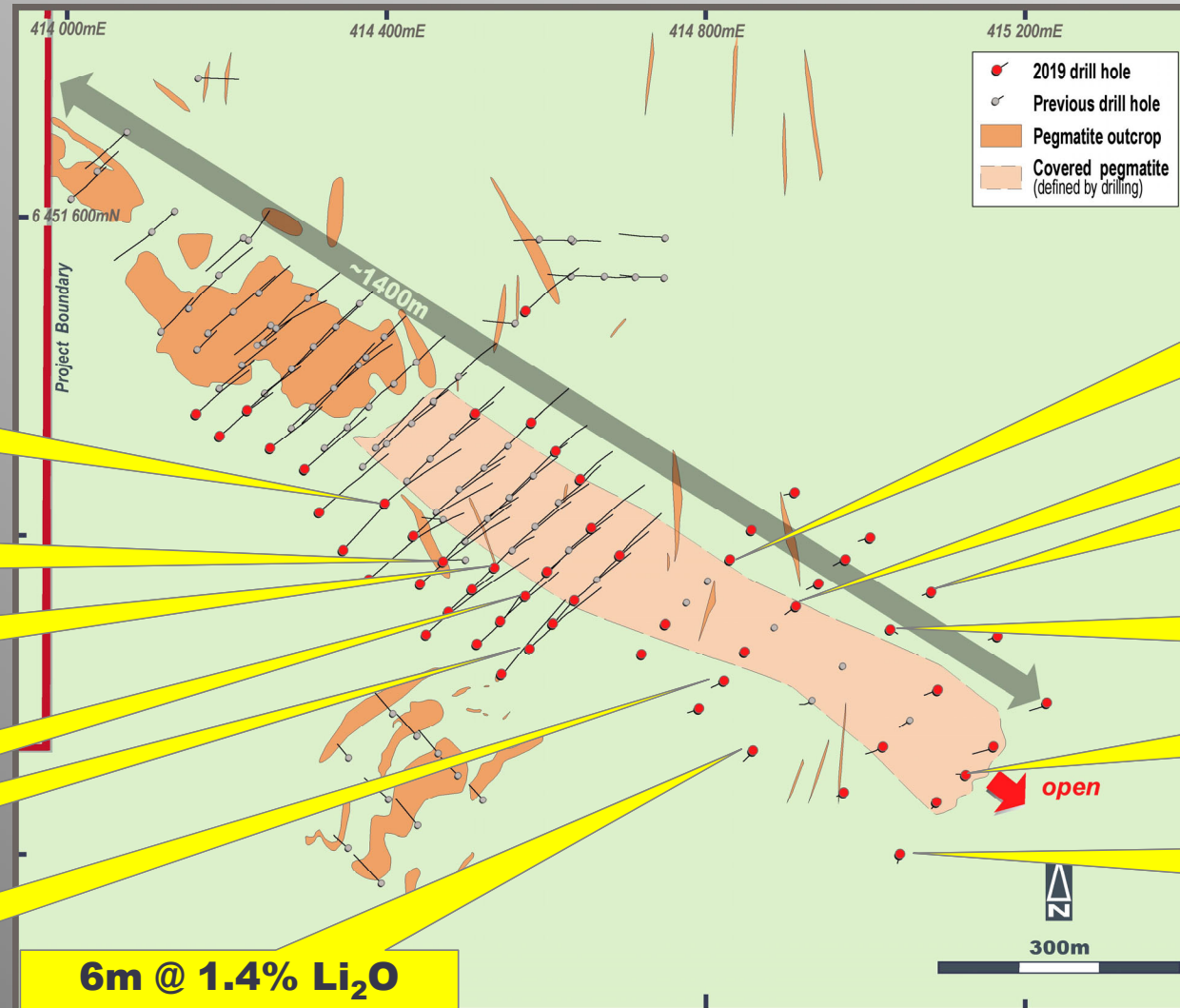
## Significant lithium discovery

- 1 Outcropping, fresh, spodumene-related mineralisation
- 2 Mineralisation at Anna extended to the SE under shallow cover – strike length >1.4km and open
- 3 Similar geology to the Mt Marion and Bald Hill lithium deposits (71Mt and 26Mt respectively)
- 4 Good infrastructure – located on Eyre Highway ~30km east of Kalgoorlie- Esperance railway
- 5 Liontown has 100% of the lithium and related metal rights
- 6 Part of larger, 330km<sup>2</sup> strategic land holding



# Large Lithium (Spodumene) Mineralised Pegmatite Defined at the Anna Prospect

Mineralisation fresh from surface  
and open along strike and at depth



**42m @ 1.0%  $\text{Li}_2\text{O}$**   
incl. **14m @ 1.4%  $\text{Li}_2\text{O}$**

**25m @ 1.1%  $\text{Li}_2\text{O}$**   
incl. **9m @ 1.8%  $\text{Li}_2\text{O}$**

**20m @ 1.1%  $\text{Li}_2\text{O}$**   
incl. **14m @ 1.3%  $\text{Li}_2\text{O}$**

**23m @ 1.0%  $\text{Li}_2\text{O}$**   
incl. **6m @ 1.4%  $\text{Li}_2\text{O}$**

**15m @ 1.3%  $\text{Li}_2\text{O}$**   
incl. **10m @ 1.5%  $\text{Li}_2\text{O}$**

**19m @ 1.5%  $\text{Li}_2\text{O}$**   
incl. **5m @ 1.9%  $\text{Li}_2\text{O}$**

**6m @ 1.4%  $\text{Li}_2\text{O}$**   
incl. **3m @ 1.9%  $\text{Li}_2\text{O}$**

**14m @ 1.7%  $\text{Li}_2\text{O}$**   
incl. **11m @ 2.0%  $\text{Li}_2\text{O}$**

**12m @ 1.5%  $\text{Li}_2\text{O}$**   
incl. **4m @ 1.9%  $\text{Li}_2\text{O}$**

**10m @ 1.0%  $\text{Li}_2\text{O}$**   
incl. **2m @ 2.2%  $\text{Li}_2\text{O}$**

**9m @ 1.4%  $\text{Li}_2\text{O}$**   
incl. **4m @ 2.1%  $\text{Li}_2\text{O}$**

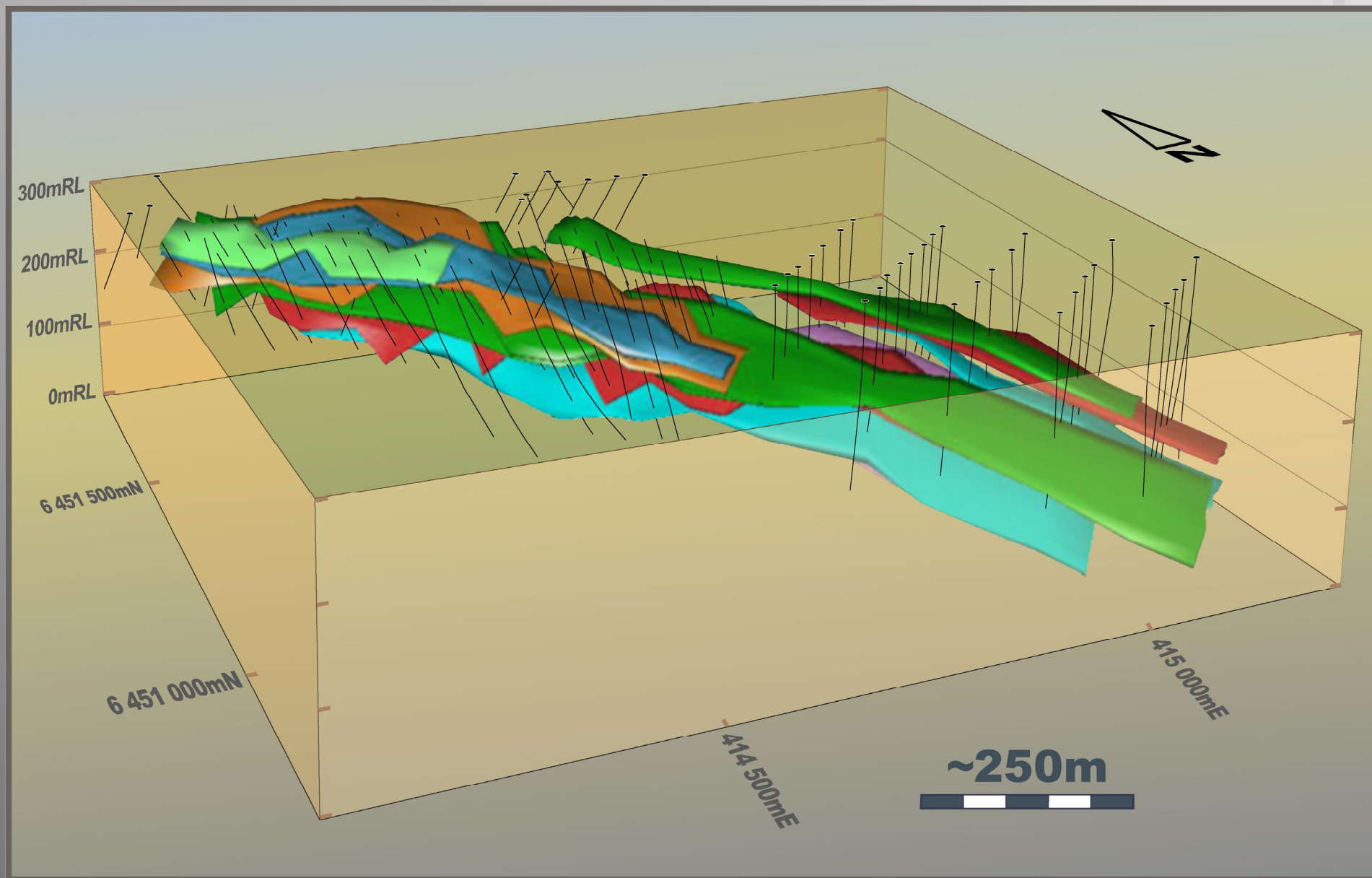
**12m @ 1.6%  $\text{Li}_2\text{O}$**   
incl. **9m @ 1.9%  $\text{Li}_2\text{O}$**

**9m @ 1.1%  $\text{Li}_2\text{O}$**   
incl. **6m @ 1.4%  $\text{Li}_2\text{O}$**





# Maiden Mineral Resource Estimate – 14.9Mt @ 1.0% Li<sub>2</sub>O





# Priorities Going Forward



- **Maintain:**

- ✓ Safe and supportive working environment
- ✓ Financial discipline
- ✓ Technical and corporate expertise
- ✓ Strong and relevant engagement with investors and stakeholders

- **At Kathleen Valley deliver:**

- ✓ PFS (Dec 2019)
- ✓ Updated MRE (Q1/Q2 2020) – 3 Rigs Drilling
- ✓ Deliver DFS

- **At Buldania:**

- ✓ Determine best strategy to add value





# Leadership and Key Financials



David Richards

Managing Director

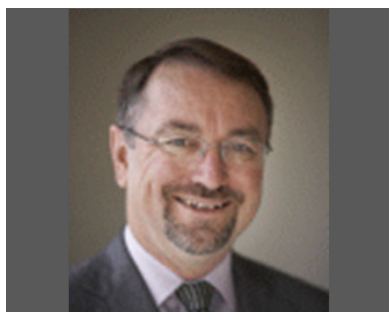
- +35 years
- Discovered multi-million ounce Vera Nancy Gold Deposits



Tim Goyder

Chairman

- +40 years
- Executive Chairman Chalice Gold Mines
- Major Shareholder



Craig Williams

Non-Executive Director

- +40 years
- Founder and CEO of Equinox Minerals



Anthony Cipriano

Non-Executive Director

- +30 years
- Former Senior Partner at Deloitte



Steven Chadwick

Non-Executive Director

- +40 years
- Director of Lycopodium Minerals

## Corporate Snapshot

ASX CODE	LTR
Shares on Issue	~1,678M
Market Capitalisation	~\$138M (AT 8.2CPS)
Major Shareholder	Tim Goyder~17%
Top 20 Shareholders	~42%
Cash (as at 30 -Sept-19)	~A\$15.6M





## APPENDIX

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Kathleen Valley Project  
Additional Information







# Kathleen Valley Mineral Resource Estimate – July



Cut-off grade (Li <sub>2</sub> O)	Resource Category	Million Tonnes	Li <sub>2</sub> O (%)	Ta <sub>2</sub> O <sub>5</sub> (ppm)
0.5	Measured	17.6	1.3	160
	Indicated	42.2	1.3	140
	Inferred	10.1	1.1	150
	<b>Sub-Total</b>	<b>69.9</b>	<b>1.3</b>	<b>150</b>
0.7	Indicated	2.5	1.4	120
	Inferred	2.5	1.3	110
	<b>Sub-Total</b>	<b>5.0</b>	<b>1.4</b>	<b>110</b>
<b>Total</b>		<b>74.9</b>	<b>1.3</b>	<b>140</b>

Cut-Off Li <sub>2</sub> O	Open pit potential above 200mRL			Underground potential below 200mRL		
	Mt	Li <sub>2</sub> O (%)	Ta <sub>2</sub> O <sub>5</sub>	Mt	Li <sub>2</sub> O (%)	Ta <sub>2</sub> O <sub>5</sub>
0.3	70.2	1.3	150	5.1	1.4	110
0.4	70.1	1.3	150	5.1	1.4	110
<b>0.5</b>	<b>69.9</b>	<b>1.3</b>	<b>150</b>	5.1	1.4	110
0.6	69.3	1.3	150	5.1	1.4	110
<b>0.7</b>	68.1	1.3	150	<b>5.0</b>	<b>1.4</b>	<b>110</b>
0.8	65.6	1.3	150	4.9	1.4	110
0.9	61.8	1.3	150	4.7	1.4	110
1.0	56.4	1.4	150	4.4	1.4	110



# Scoping Study – Key Parameters And Assumptions



Parameter	
<b>General and Economic</b>	
Discount rate (real, post tax)	8%
Spodumene concentrate price	US\$650 per tonne FOB
Tantalum concentrate price (contained Ta <sub>2</sub> O <sub>5</sub> )	US\$71 per pound FOB
<b>Exchange rate – AUD/USD</b>	0.72
<b>Mining and Production</b>	
Average Life-of-Mine strip ratio	8.24:1
Processing rate	2Mtpa
Life-of-Mine Production Target	15.7Mt ore
Average Li <sub>2</sub> O grade (diluted)	1.26%
Average Ta <sub>2</sub> O <sub>5</sub> grade (diluted)	154ppm
Li <sub>2</sub> O recoveries	79%
Ta <sub>2</sub> O <sub>5</sub> recoveries	50%
Spodumene concentrate grade	5.6%
Tantalite concentrate grade	30%
Moisture content of concentrate	13%

Parameter	
<b>Cost Assumptions</b>	
LOM average open pit mining costs (\$/t ore mined)	A\$37.72
LOM average processing cost (\$/t ore milled)	A\$19.32
Logistics and transport (\$/t concentrate)	A\$75.65
General and admin (\$/t ore milled)	A\$6.01
Western Australia State royalty	5%
Other royalties	3% gross sales and \$0.5/t ore mined
Corporate tax rate	30%
Estimated opening tax losses available	A\$25M





# Scoping Study – LoM Financials And Capital Expenditure



## Life of Mine Financials

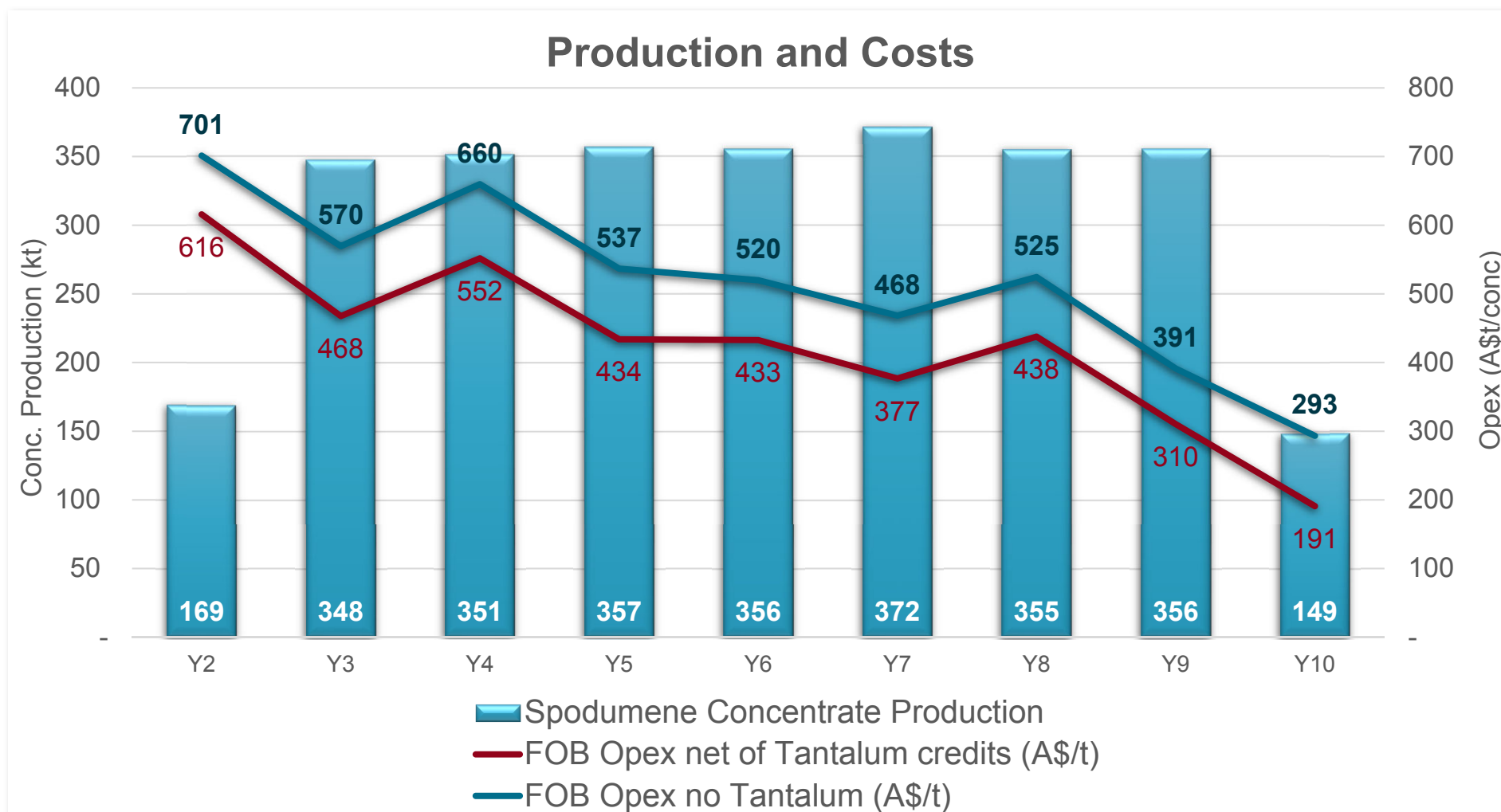
	A\$M
<b>Revenues</b>	2,802
<b>Operating costs</b>	(1,236)
<b>Capital expenditure</b>	
- pre-production	(232)
- sustaining	(25)
<b>Royalties</b>	(232)
<b>Corporate tax</b>	(315)
<b>Life of Mine Project Free Cash flow</b>	762

## Capital Costs Summary

Main Area	Capital (A\$M)
<b>Treatment Plant</b>	82.8
<b>Reagents &amp; Plant Services</b>	9.5
<b>Infrastructure – general</b>	39.9
<b>Mining</b>	6.1
<b>Contractor and Construction Indirects</b>	18.6
<b>Subtotal</b>	156.9
<b>Management Costs</b>	20.6
<b>Owners Costs</b>	14.4
<b>Subtotal</b>	35.0
<b>Contingency</b>	40.3
<b>Project Total</b>	232.2



# Scoping Study – Production And Costs

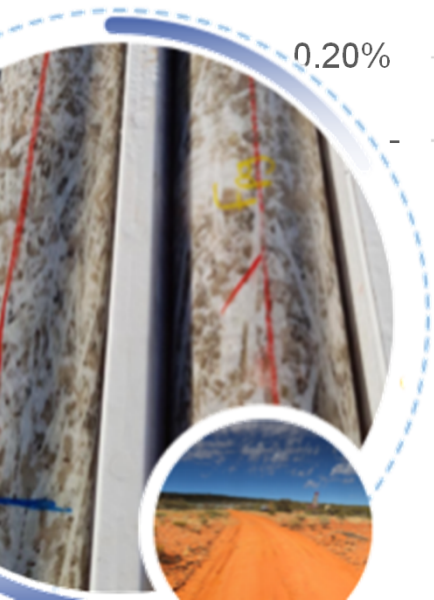




# Scoping Study – Grade Profiles



## LOM Lithium and Tantalum Grade Profile

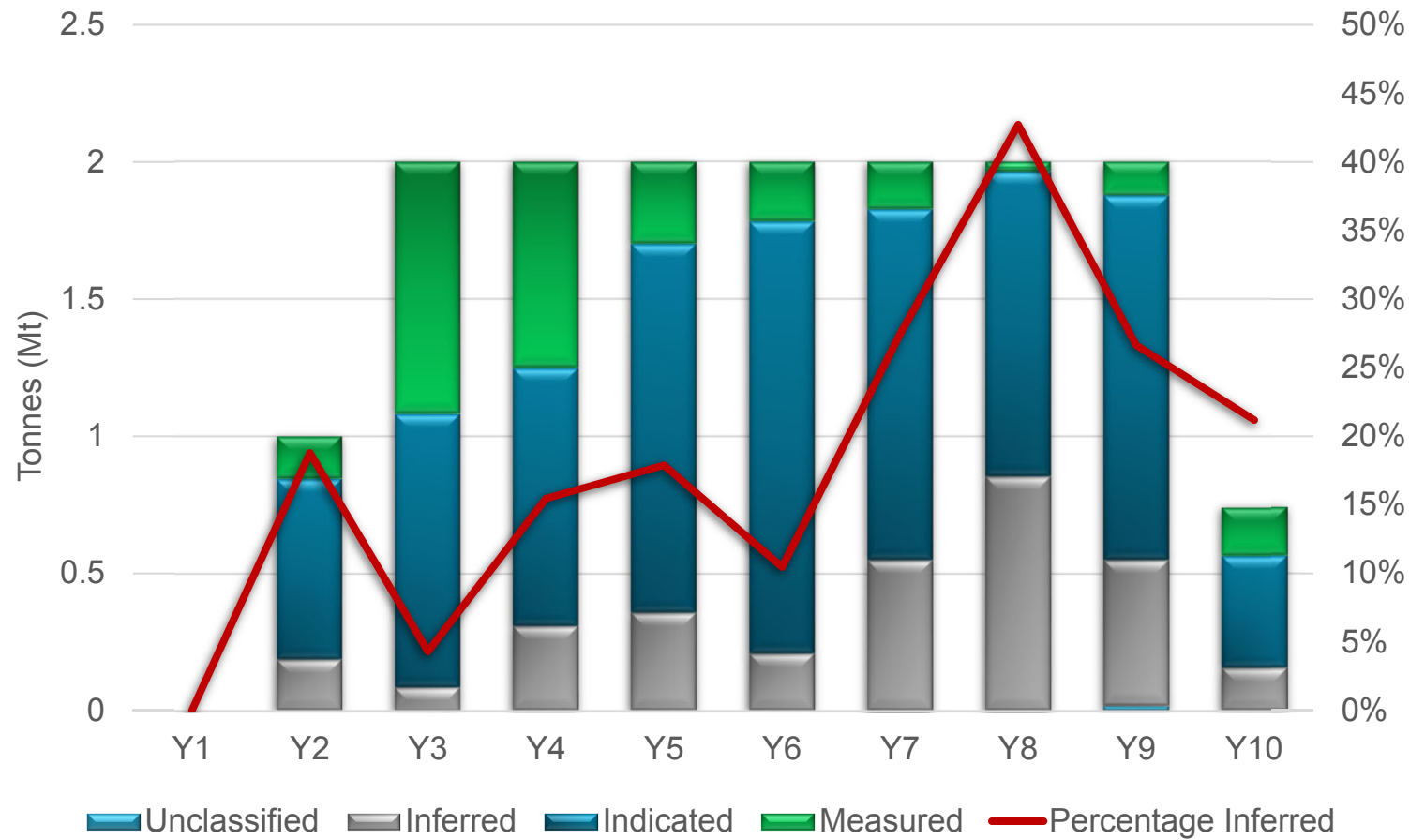




# Scoping Study – Production Classification



## Production Classification by Year





# Peer Comparison Information – Mineral Resource Esti

Company	Project	Stage	Measured Mt	Indicated Mt	Inferred Mt	Global MRE Mt	MRE Grade	Information Source
<b>Pilbara Minerals</b>	Pilgangoora	Operating	22.8	112.8	90.4	226	1.3	ASX Announcement, 17 Sept 2018 - <a href="http://www.pilbaraminerals.com.au/site/PDF/2235_0/PilgangooraReserveandResourceUpgrade">http://www.pilbaraminerals.com.au/site/PDF/2235_0/PilgangooraReserveandResourceUpgrade</a>
<b>Wesfarmers / SQM / Kidman</b>	Earl Grey	Development	66	106	17	189	1.5	ASX Announcement, 19 March 2018 - <a href="https://wcsecure.weblink.com.au/pdf/KDR/01963105.pdf">https://wcsecure.weblink.com.au/pdf/KDR/01963105.pdf</a>
<b>Talison / Tianqi</b>	Greenbushes	Operating	0.6	117.9	2.1	120.6	2.4	NI 43-101 Technical Report 2012 - <a href="http://www.goldendragoncapital.com/greenbushes-lithium-mine/">http://www.goldendragoncapital.com/greenbushes-lithium-mine/</a>
<b>Mineral Resources and Albemarle</b>	Wodgina	Operating	0	177	59.9	236.9	1.2	ASX Announcement, 23 October 2018 <a href="http://clients3.weblink.com.au/pdf/MIN/02037855.pdf">http://clients3.weblink.com.au/pdf/MIN/02037855.pdf</a>
<b>Galaxy Resources</b>	Mt Cattlin	Operating	2.2	9.9	4.6	16.7	1.28	ASX Announcement 23rd Jan 2019: <a href="https://www.asx.com.au/asxpdf/20190123/pdf/4420zn6jk8t10q.pdf">https://www.asx.com.au/asxpdf/20190123/pdf/4420zn6jk8t10q.pdf</a>
<b>Mineral Resources Ltd and Jiangxi Ganfeng</b>	Mt Marion	Operating	0	22.70	48.7	71.3	1.37	ASX Announcement, 28th October: <a href="https://www.neometals.com.au/reports/2018-10-31-1697-MINMtMario.pdf">https://www.neometals.com.au/reports/2018-10-31-1697-MINMtMario.pdf</a>
<b>Altura Mining</b>	Pilgangoora	Operating	8.7	38	3.8	50.5	1.01	Investor Presentation, 21 March 2019: <a href="https://alturamining.com/wp-content/uploads/2019/03/1912571.pdf">https://alturamining.com/wp-content/uploads/2019/03/1912571.pdf</a>
<b>Alliance Mineral Assets Ltd</b>	Bald Hill	Operating	0	14.4	12.1	26.5	1.0	Investor Presentation, March 2019: <a href="http://www.allianceminerals.com.au/wp-content/uploads/2019/03/02088109.pdf">http://www.allianceminerals.com.au/wp-content/uploads/2019/03/02088109.pdf</a>
<b>Nemaska Exploration</b>	Whabouchi	Development	17.0	20.6	16.1	53.7	1.45	Website, 18th June 2019: <a href="https://www.nemaskalithium.com/en/whabouchi/lithium-resources-reserves/">https://www.nemaskalithium.com/en/whabouchi/lithium-resources-reserves/</a>



# Exploration Target Parameters and Assumption



Parameter	KV Feeder Zone	KV North West	Rationale
Combined strike length of pegmatites	1 100m	400	Based on previous drilling and extrapolation of block model used in preparation of Mineral Resource Estimate (released 4 <sup>th</sup> September 2018)
Average cumulative true width	>18m	>20m	
Down Dip extent	230 - 500m	600 - 1,100m	
Specific gravity	2.75	2.75	Measured from diamond core drilling
Total tonnage	12.5 - 27Mt	13 - 24Mt	Strike x width x dip x S.G
Average grade	1.2 – 1.5%	1.2 – 1.5%	Based on latest Mineral Resource Estimate



The grade and tonnage ranges referred to above are conceptual in nature and there has been insufficient exploration to estimate a Mineral Resource. It is uncertain if further exploration will result in the estimation of a Mineral Resource.





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