



KATHLEEN VALLEY PRE-FEASIBILITY STUDY AND BEYOND



ASX : LTR | 2 December 2019



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Competent Person Statement

The Information in this report that relates to Ore Reserves for the Kathleen Valley Project is extracted from the ASX announcements “Kathleen Valley Pre-Feasibility Study confirms potential for robust new long-life open pit lithium mine in WA” released on 2nd December 2019 which is available on www.ltresources.com.au.

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% Li₂O” released on the 9th July 2019 which is available on 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% Li₂O” released on the 12th November 2018 and 9th July 2019 respectively which are available on www.ltresources.com.au.

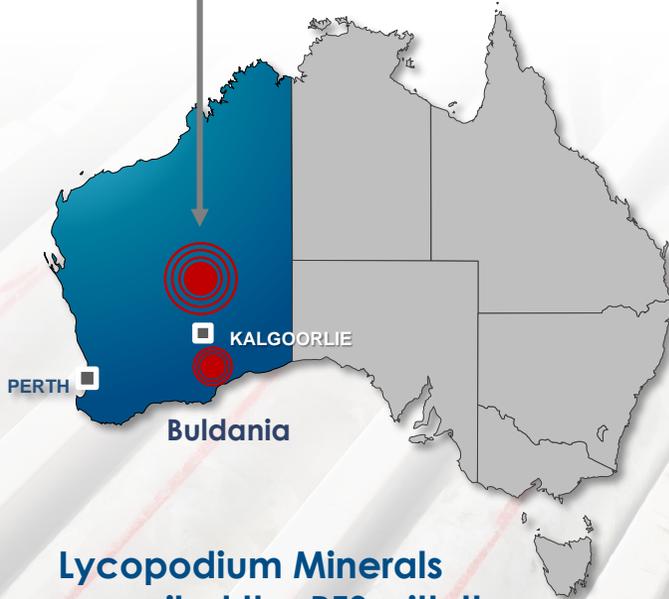
The Information in this report that relates to Exploration Results for the Kathleen Valley Project is extracted from the ASX announcements “Mineralised system extended 400m north at Kathleen Valley” and “Further exceptional drill results at Kathleen Valley” released on the 8th October and 5th November 2019 respectively which are available on 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 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.

Project Overview

Kathleen Valley Lithium Project



Lycopodium Minerals compiled the PFS with the assistance of highly reputable and experienced consultants ensuring a high standard study

Strong Financials



- NPV +\$500M
- IRR +25%
- LoM Free Cash +\$1.9B

Long Life



- 26 Years
- 50Mt Reserve
- +6% Li₂O Spodumene Concentrate
- 76% recovery

Significant Upside



- Resource upgrade
- Potential expansion with concurrent underground mine
- Tantalum by-product

Infrastructure



- Active mining region
- Power
- Transport

Low Risk

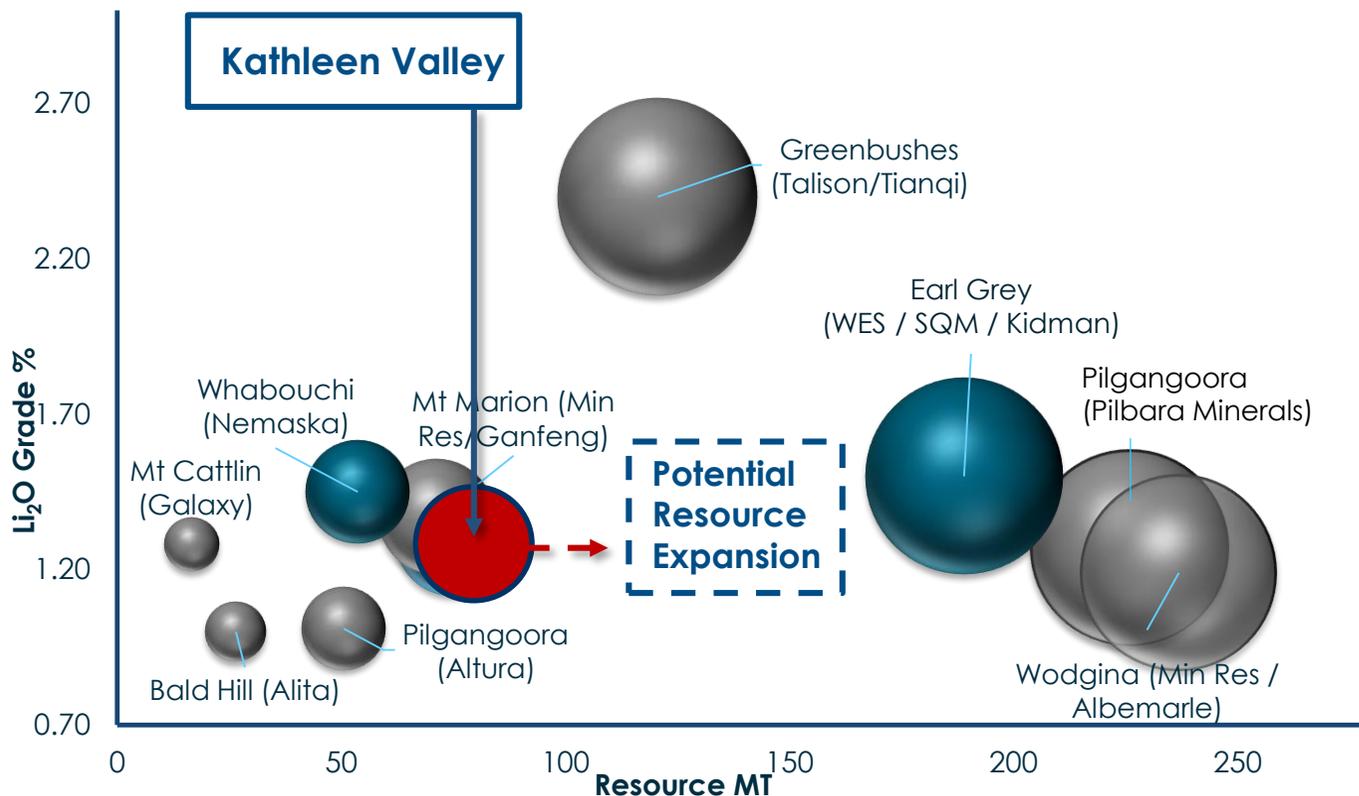


- 100% Ownership
- Well funded ~\$15M Cash





Western World | Spodumene Dominant | Tonnes x Grade | Li₂O Only



- Development
- Operating

Refer to Appendix on Slide 25 for Peer Comparison Information including Resource Classifications

A Globally Significant Resource



Top 5 in Australia,
Top 10 in the world

PFS Key Metrics: Open Pit/Lithium Only



Life of Mine
26 YEARS

Total Free Cash Flow
+\$1.9B

Payback Period
~4 YEARS

Capex
\$240M

NPV
\$507M¹

OPEX²
\$564/t conc.
Excl. Ta credits

IRR 25.1%

Ave. SC6 Price³
US\$690/t

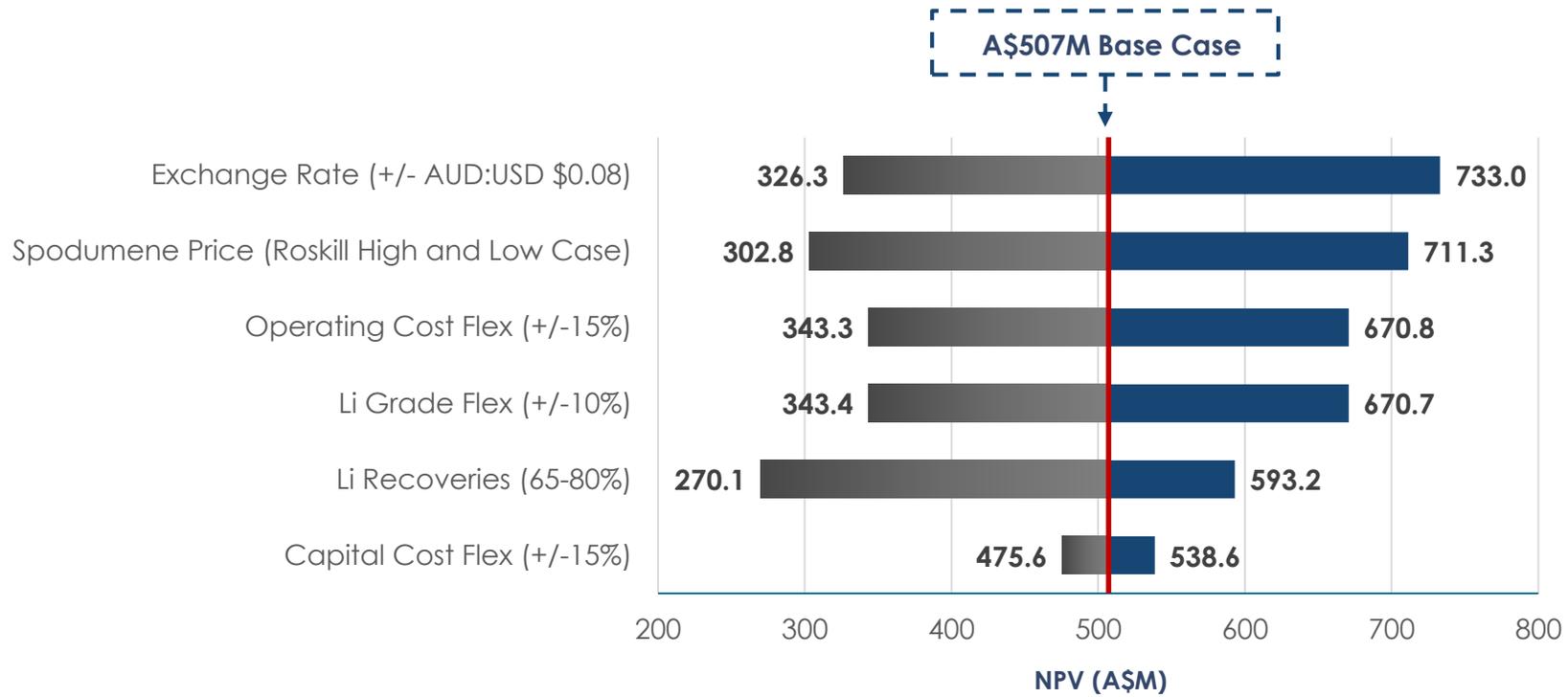
Ave. Production
2Mtpa ore
295Ktpa conc.

Ave. Strip Ratio
7.7:1

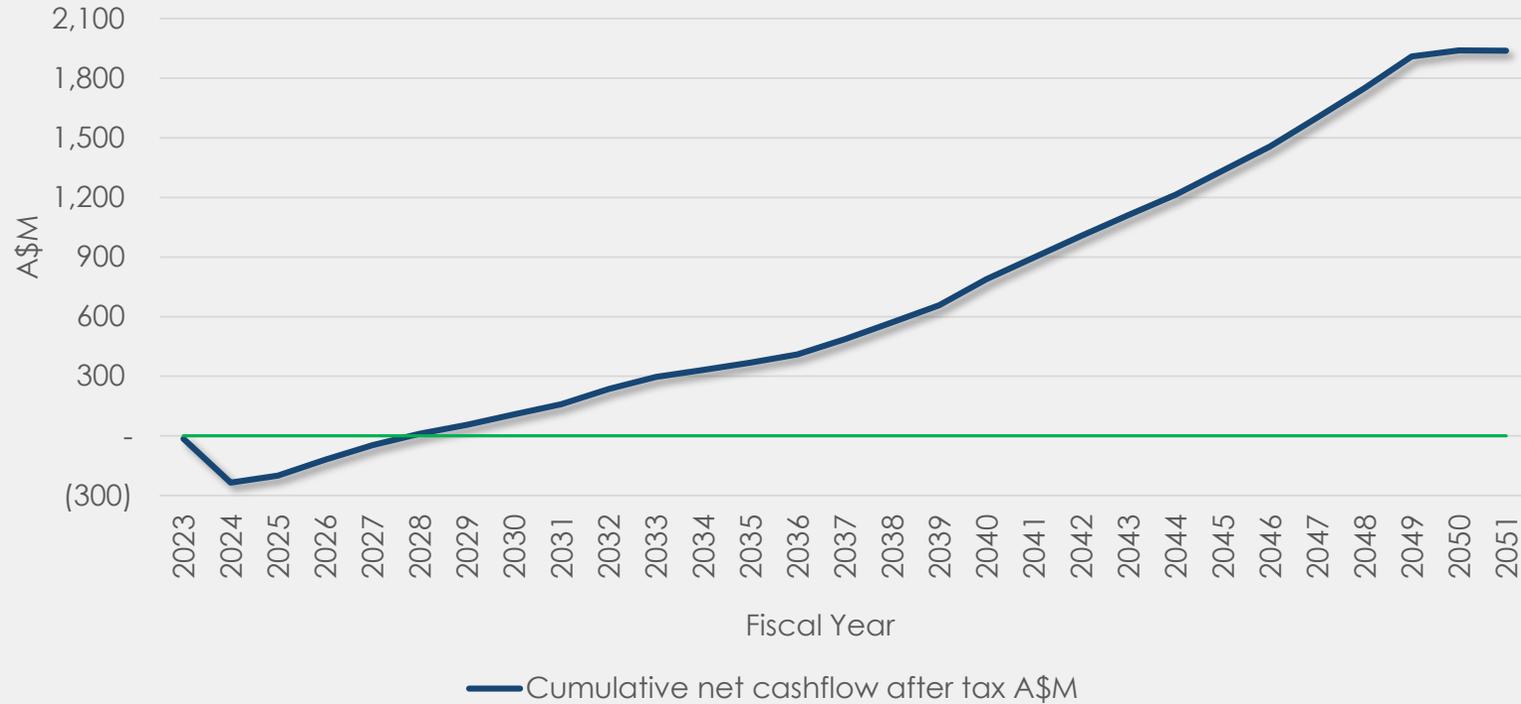
¹ 8% (real) ²Operating costs include all mining, processing, transport, state and private royalties, freight to port, port costs and site administration and overhead costs.

³Source: Roskill 2019 and LioneTown base case related party and arms length prices 2024 -2040. Refer to Appendix on Slide 20 for full assumptions.

Kathleen Valley Project - NPV Sensitivity Analysis (A\$M)



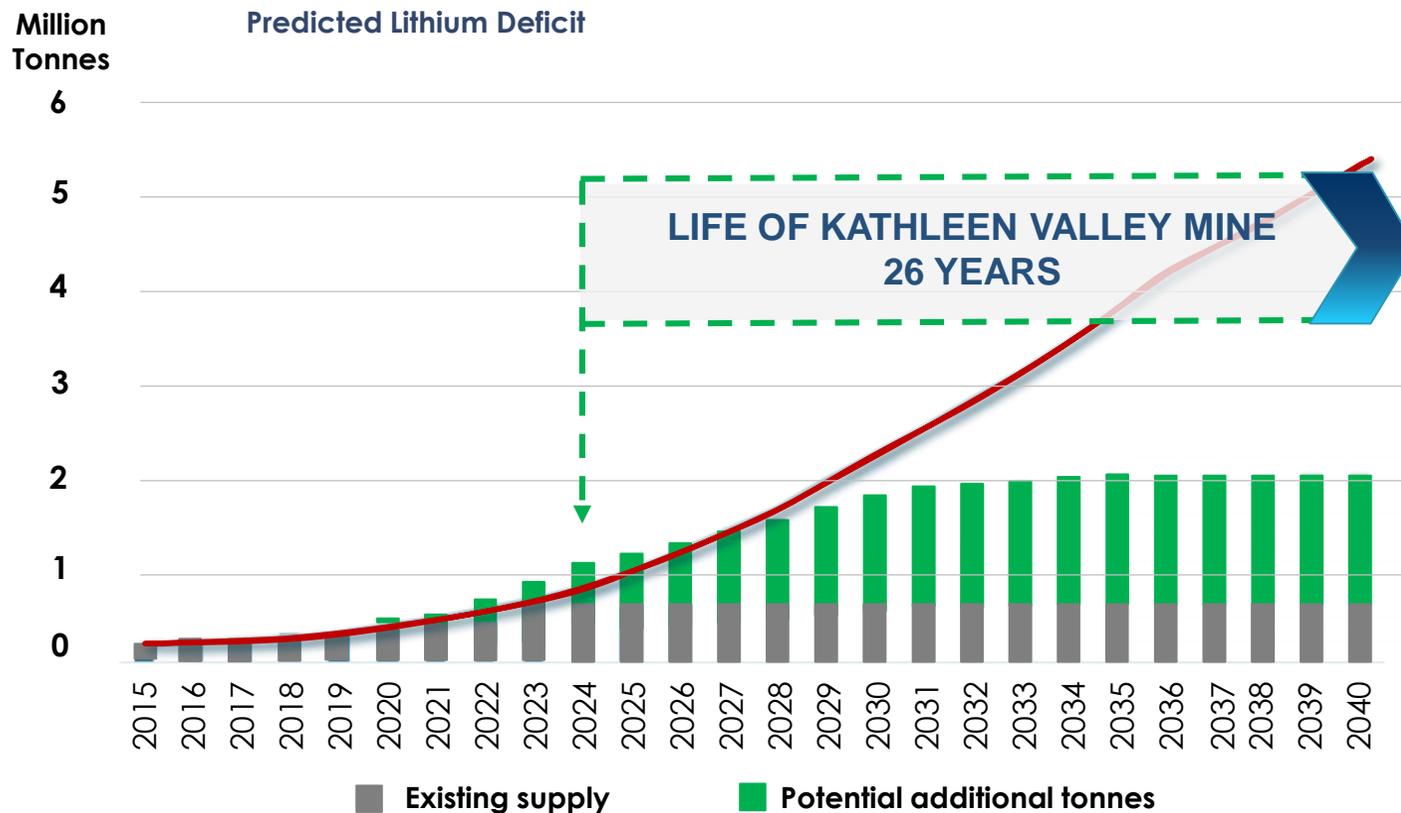
Payback Period and Cumulative Net Cashflow (After Tax)



1 PFS indicates payback period of 4 years from production...

2 and LoM free cash flow of +\$1.9B

Production is aligned to meet the forecast rise in lithium demand

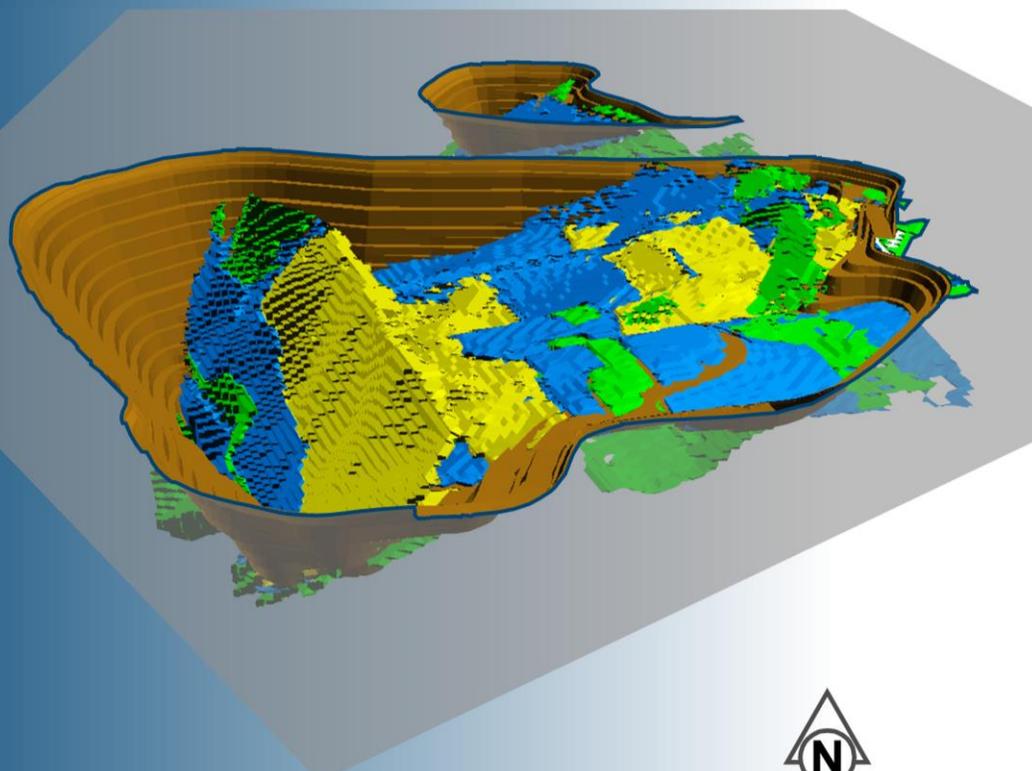


Kathleen Valley

A globally significant resource with the potential to help fill future lithium deficit



Maiden Ore Reserve of 50.4Mt @ 1.2% Li₂O



 Measured
 Indicated
 Inferred

Mineral Resource Estimate* – July 2019

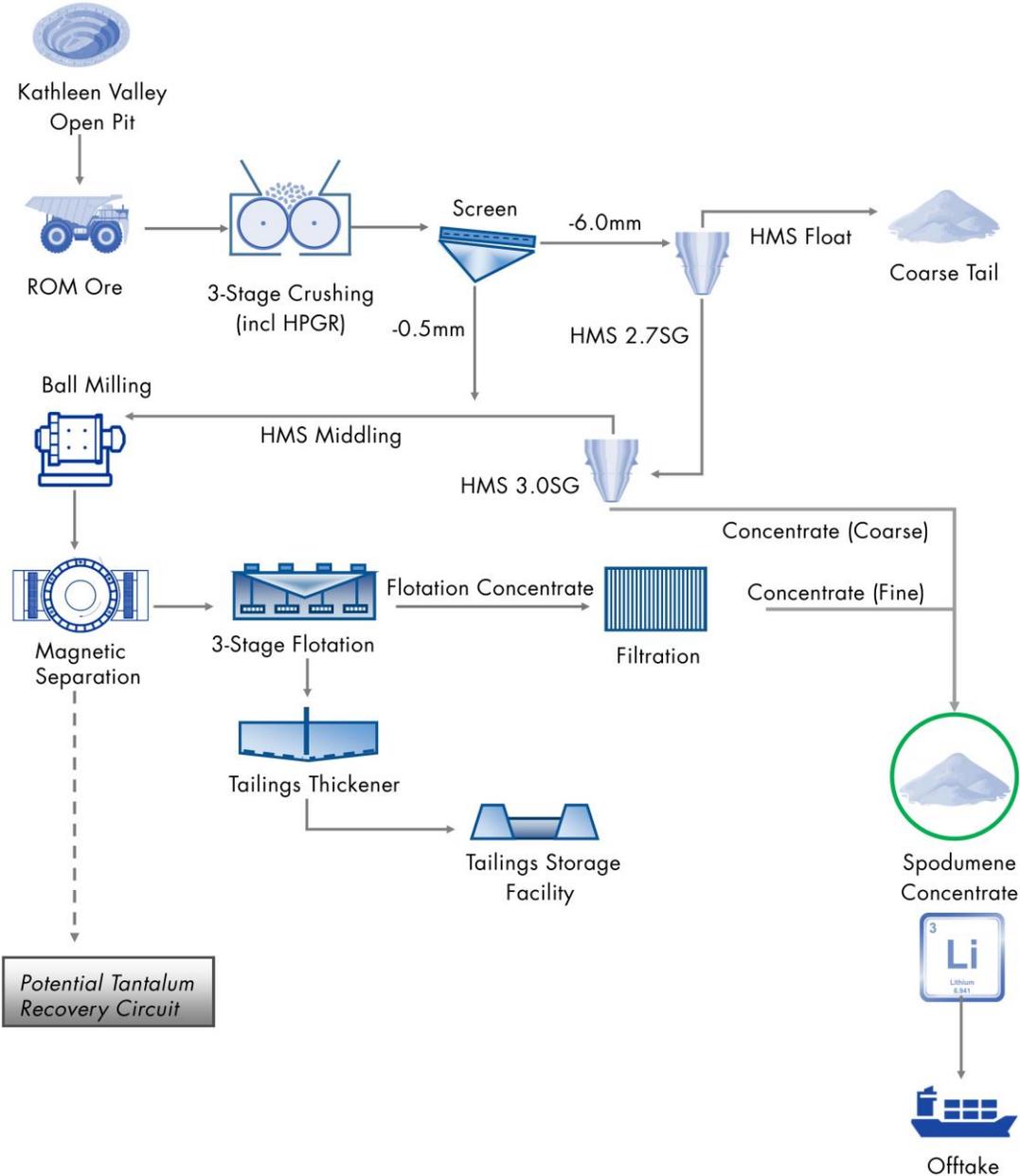
Cut-off Li ₂ O%	Resource Category	Million Tonnes	Li ₂ O %	Ta ₂ O ₅ (ppm)
0.5	Measured	17.6	1.3	160
	Indicated	42.2	1.3	140
	Inferred	10.1	1.1	150
	Sub-Total	69.9	1.3	150
0.7	Indicated	2.5	1.4	120
	Inferred	2.5	1.3	110
	Sub-Total	5	1.4	110
TOTAL		74.9	1.3	140

* Inclusive of Ore Reserve

ORE Reserve – December 2019

Category	Million Tonnes	Li ₂ O (%)	Li ₂ O (T)
Proved	17.1	1.2	204,000
Probable	33.3	1.2	399,600
TOTAL	50.4	1.2	603,600

Metallurgy And Flowsheet



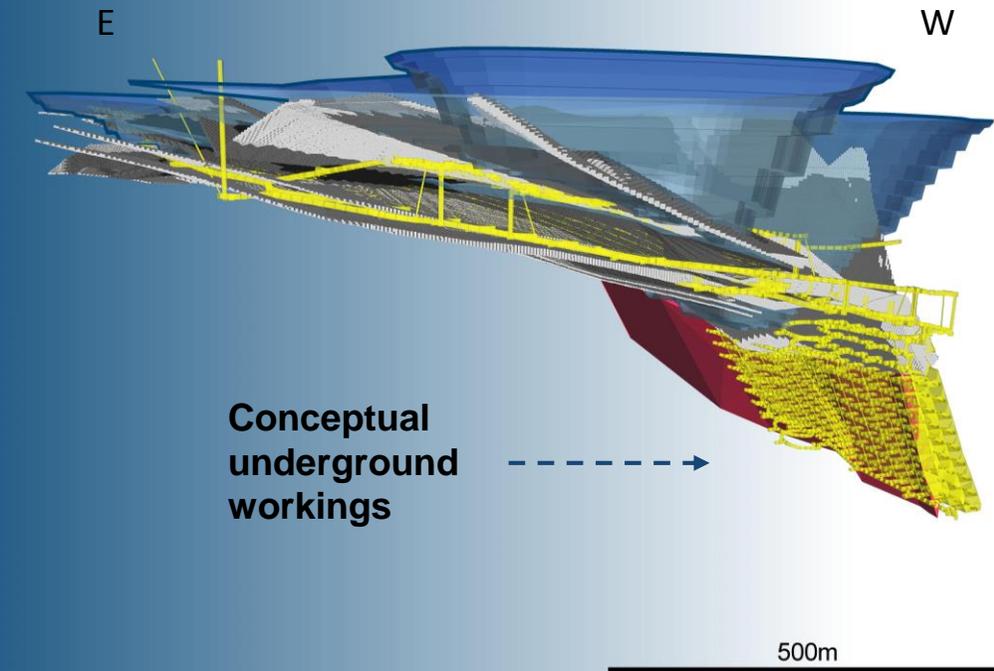
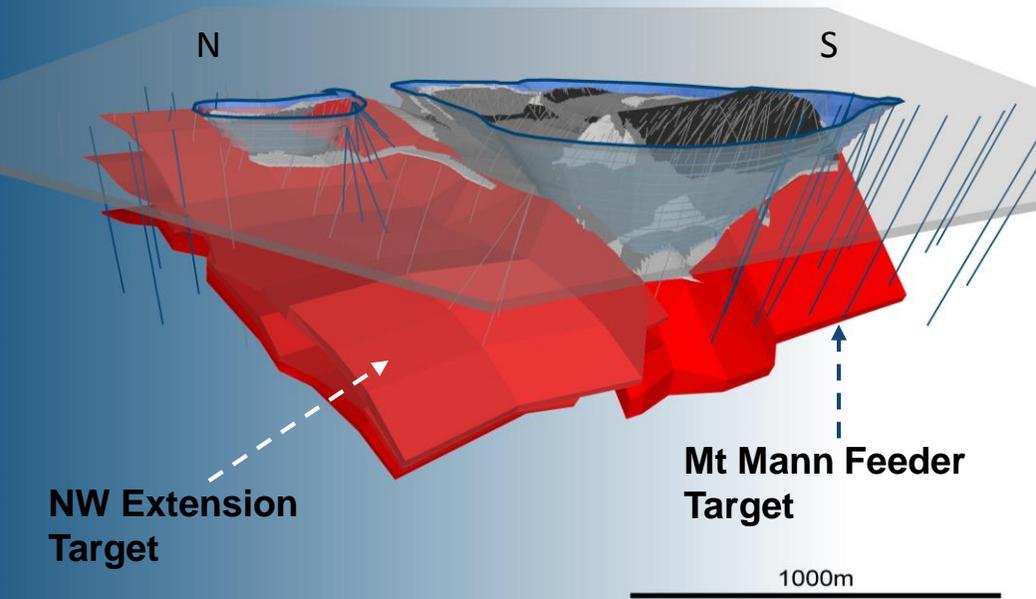
Key Outcomes

- 6.1% Li_2O concentrate
- Predicted 76% recovery of Li_2O
- Chemical grade specifications achievable

Next Steps

- Optimisation of unit processes
- Tantalum recovery
- Variability testing





PFS is a critical step towards the DFS and maximising future opportunities

Resource Expansion

- 1 Continuous, thick, high-grade mineralisation intersected well beyond the current Mineral Resource

Concurrently Develop Underground Mine

- 2 Potential to:
 - Bring forward higher grade
 - Lower strip ratio
 - Enable stage production expansion
 - Lower environmental footprint

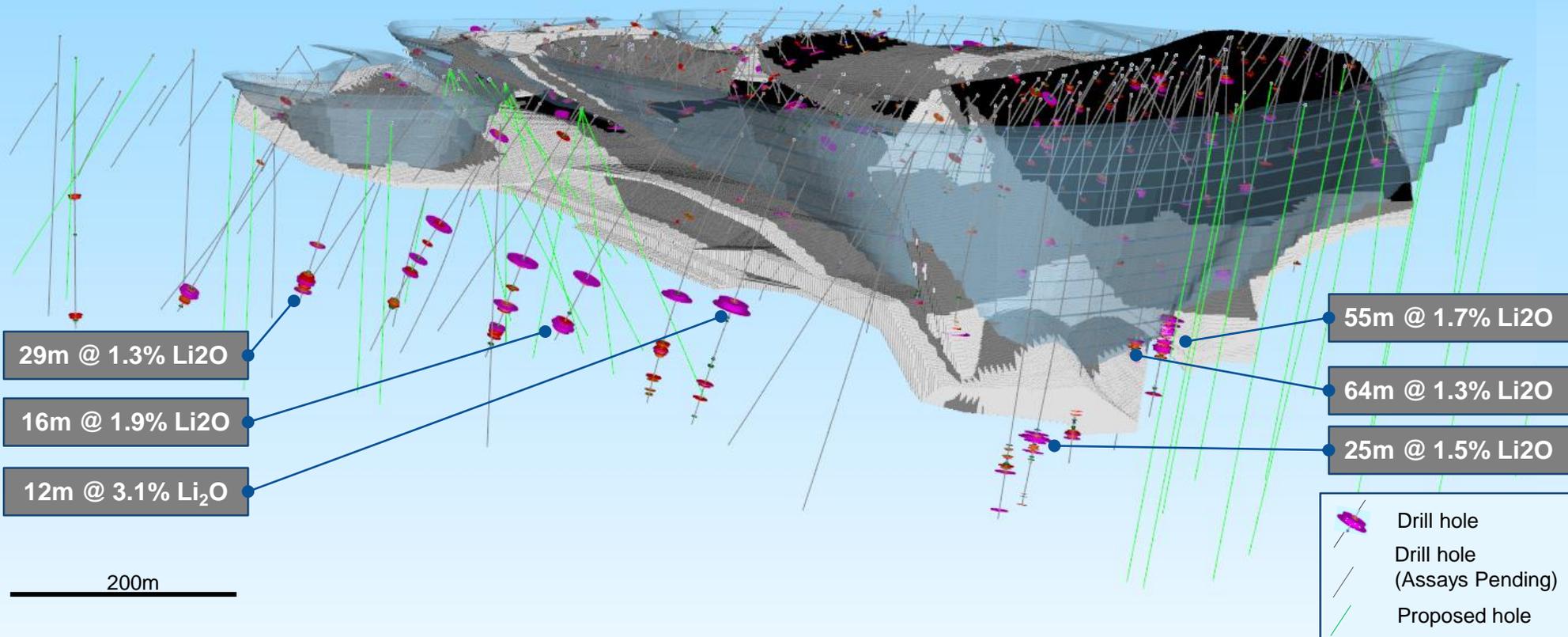
Tantalum Recovery

- 3 Preliminary test work confirms potential to recover a saleable product

N

Mineralisation intersected down dip and >400m along strike of current resource

S

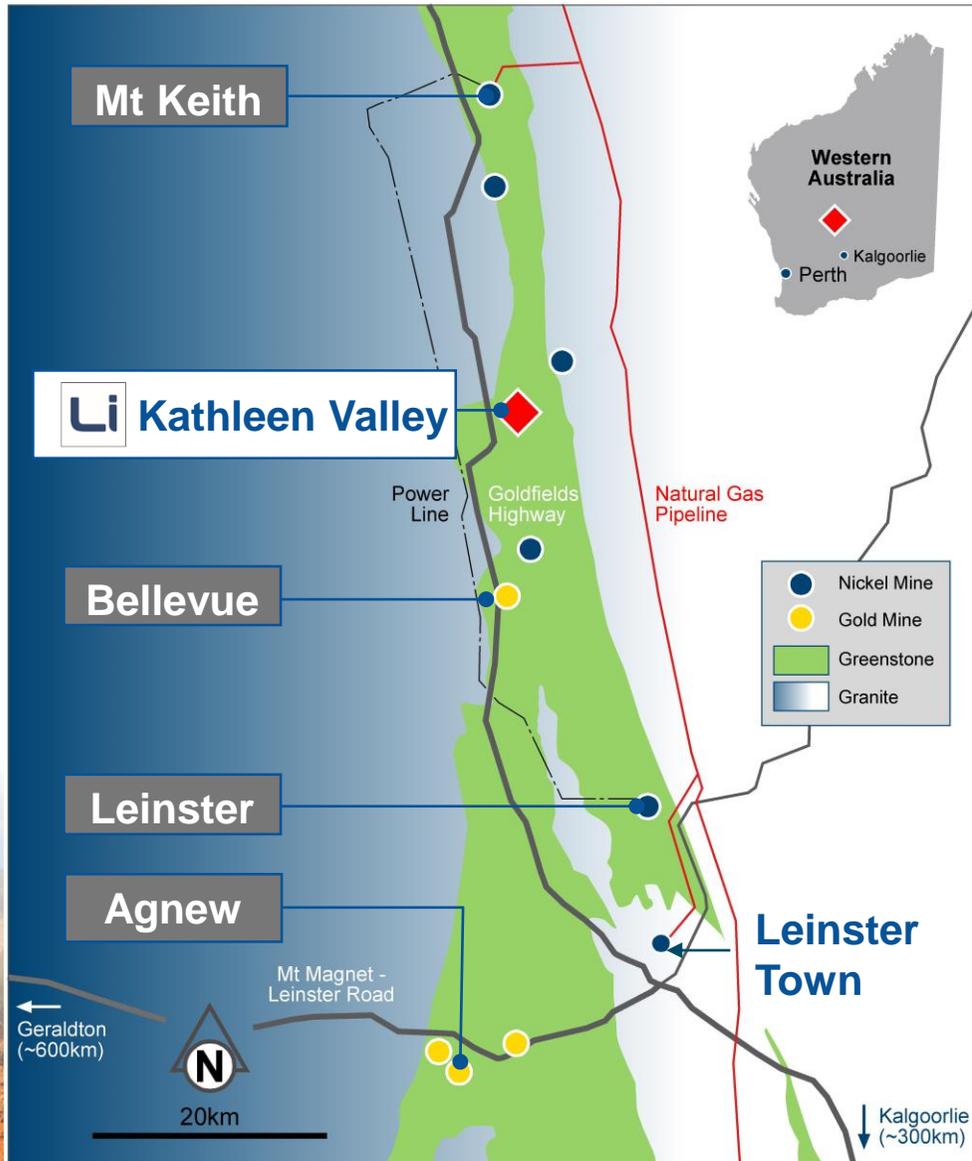


15,000 - 25,000m resource extension drill program in progress

Targeting extension of thick (>45m), high grade, "feeder" zone and along strike to NW

Drilling program expanded with 3 rigs operating

Well serviced and highly active mining region



Major Ni & Au Mines



Goldfields Highway



Sealed Airstrips



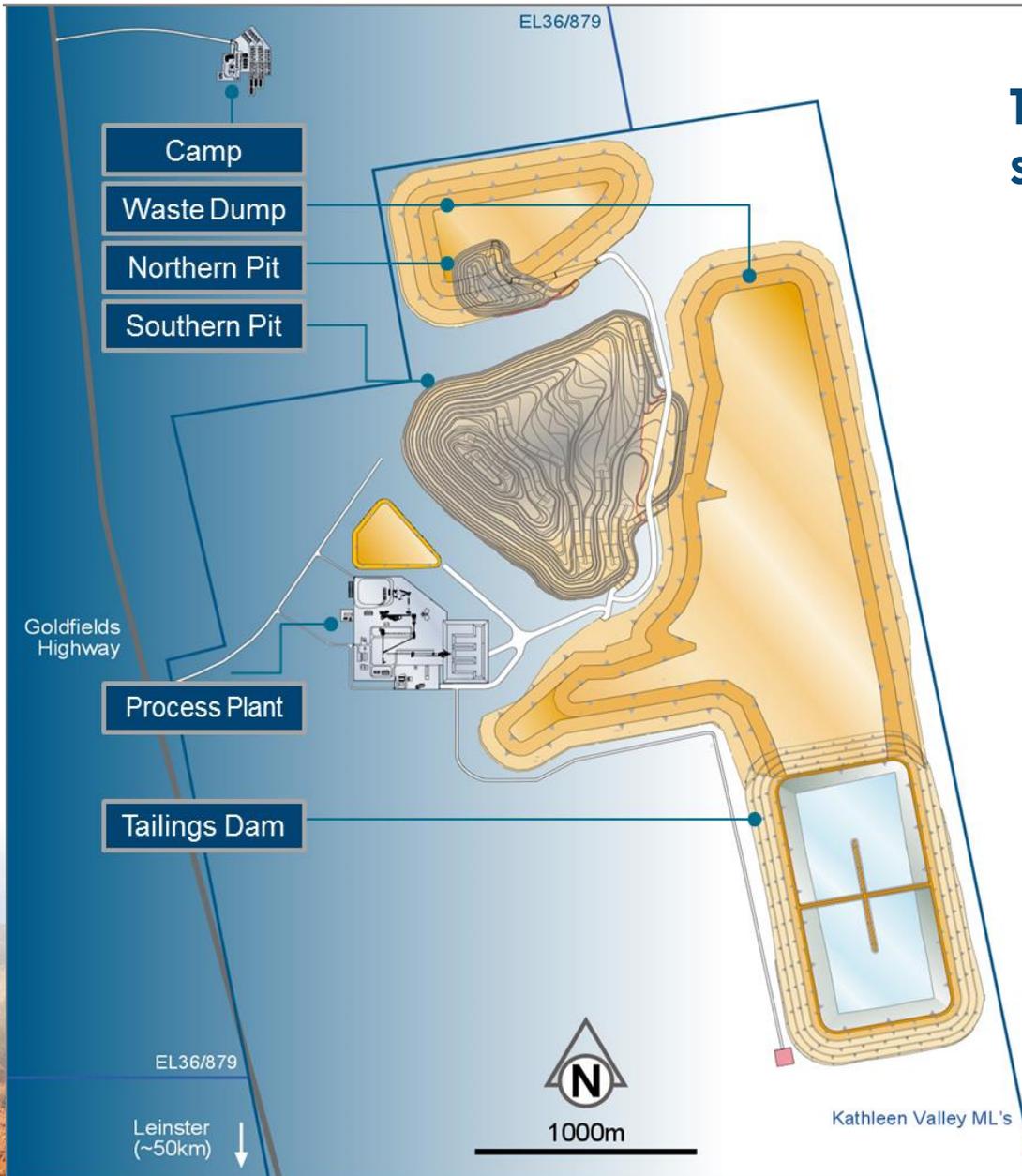
Town of Leinster



Powerline



Natural Gas Pipeline



The only unencumbered spodumene resource in Australia



- Low sovereign risk
- 100% owned



- Granted mining leases
- Established mining region
- Simple geology



- Well funded (~\$15m cash)



- Early studies indicate:
 - Good quality water
 - Low environmental risk
 - No geotechnical issues



Achievements in the last 15 months pave the way for future opportunities



MAIDEN MRE

21.2Mt @ 1.4% Li₂O
and 170ppm Ta₂O₅

UPGRADED MRE

74.9Mt @ 1.3% Li₂O
and 140ppm Ta₂O₅



RESOURCE UPGRADE

FURTHER STUDIES

Mine Optimisation inc.
underground;
Metallurgy; Hydrology;
Environmental and
Land Access

SEP 18

JAN 19

JUL 19

DEC 19

Q1/Q2 2020

Q4/2020

SCOPING STUDY

PRE-FEASIBILITY STUDY

MAIDEN ORE RESERVE

50.4Mt @ 1.2% Li₂O

DEFINITIVE FEASIBILITY STUDY



PFS supports a long-life open-pit lithium mine



26 Year Mine



Robust project economics



Quality concentrate



Existing, modern infrastructure



Strategic development timeline



Multiple opportunities to enhance financial metrics

Maiden Ore Reserve of **50.4Mt @ 1.2% Li₂O**



David Richards

Managing Director

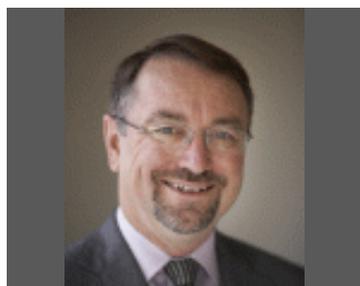
- +35 years
- Discovered multi-million ounce Vera Nancy Gold Deposits



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	~1,689.5M
Market Capitalisation	~\$137M (AT 8.0CPS)
Major Shareholder	Tim Goyder~17%
Top 20 Shareholders	~42%
Cash (as at 30-Sept-19)	~A\$15.6M



THANK YOU



For more information visit
www.ltresources.com.au

APPENDIX 1



Kathleen Valley Project Additional Information

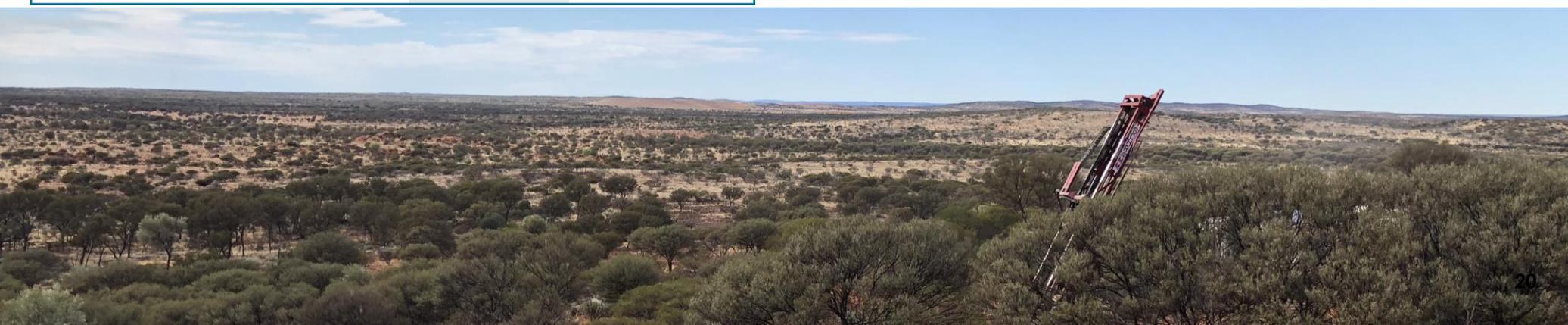


PFS v Scoping Study– Key Parameters And Assumptions



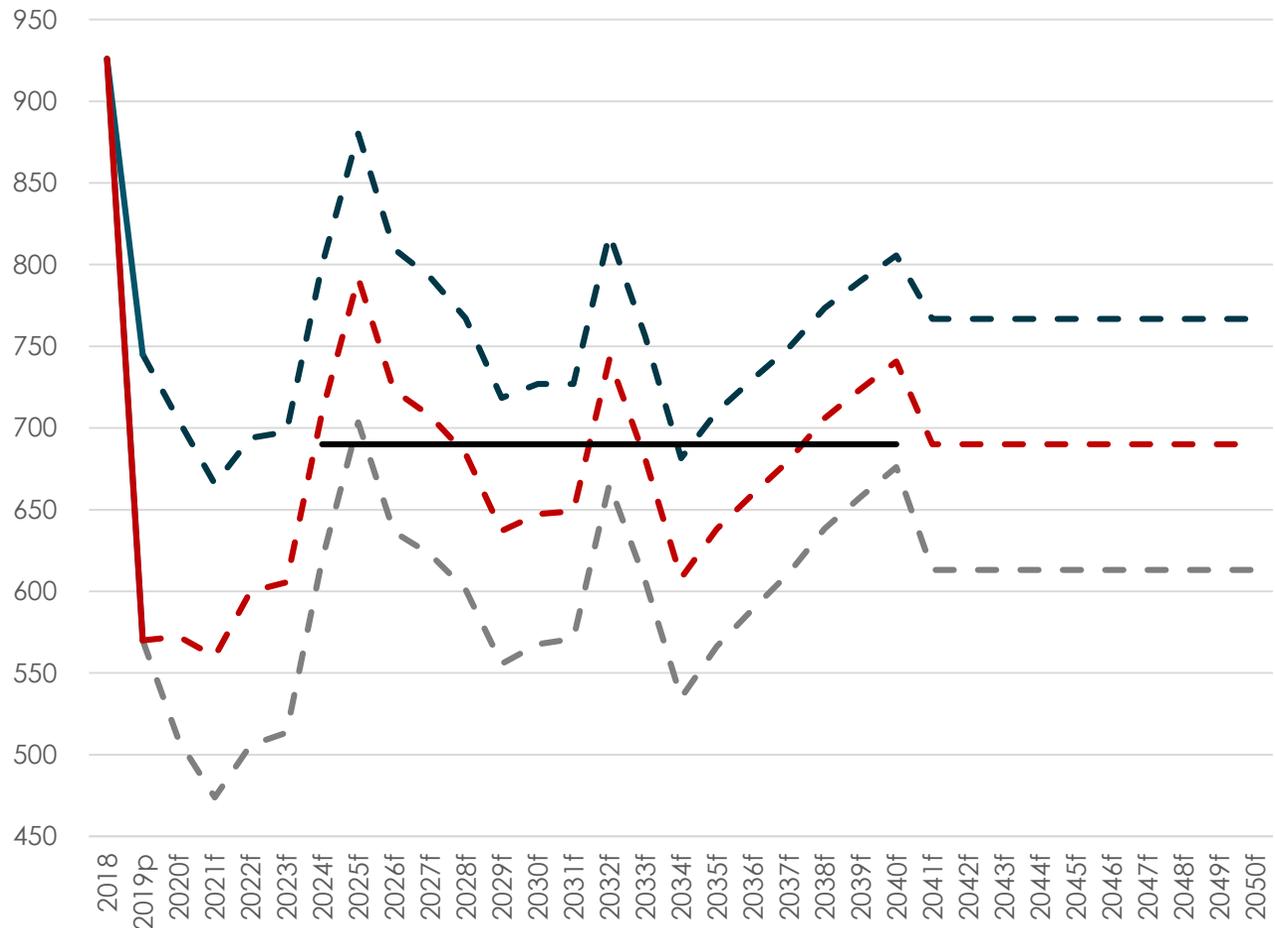
Parameter		
General and Economic	PFS	Scoping Study
Discount rate (real, post tax)	8%	8%
Spodumene concentrate price	US\$690/dmt FOB SC6 (See next slide)	US\$650/dmt FOB SC5.6
Exchange rate – AUD/USD	0.72	0.72
Mining and Production		
Average Life-of-Mine strip ratio	7.7:1	8.2:1
Processing rate	2Mtpa	2Mtpa
Life-of-Mine Production Target	50.4Mt ore	15.7Mt ore
Average Li ₂ O grade (diluted)	1.18%	1.26%
Li ₂ O recoveries	76%	79%
Spodumene concentrate grade	6.1%	5.6%
Moisture content of concentrate	9%	13%

Parameter		
Cost Assumptions	PFS	Scoping Study
LOM average open pit mining costs (\$/t ore processed)	\$35.12	\$37.72
LOM average processing cost (\$/t ore processed)	\$18.20	\$19.32
Logistics and transport (\$/wmt concentrate)	\$77.26	\$75.65
General and admin (\$/t ore processed)	\$4.71	\$6.01
Western Australia State royalty	5%	5%
Other royalties	3% gross sales and \$0.5/t ore mined	3% gross sales and \$0.5/t ore mined
Corporate tax rate	30%	30%
Estimated opening tax losses available	\$30m	\$25M



Spodumene Concentrate (SC6) Forecast Pricing

Chemical Grade Spodumene Concentrate Forecast Prices - Sensitivity Ranges
US\$ per tonne, Real, FOB Australia



- - - Average Related Party and Arms Length HIGH
- - - Average Related Party and Arms Length LOW
- - - Average Related Party and Arms Length BASE
- Average Base case 2024 - 2040 US\$690 FOB

SC6 Prices				
	Related Party*	Arms Length*	50% Related Party and 50% Arms Length	50% Related Party and 50% Arms Length
	US\$ CIF China	US\$ CIF China	US\$ CIF China	US\$ FOB Australia
2019p	650	550	600	570
2020f	617	588	602	572
2021f	557	624	590	560
2022f	583	677	630	600
2023f	589	682	636	606
2024f	695	785	740	710
2025f	778	866	822	792
2026f	710	796	753	723
2027f	695	780	738	708
2028f	673	756	714	684
2029f	626	708	667	637
2030f	637	717	677	647
2031f	640	718	679	649
2032f	734	810	772	742
2033f	674	749	711	681
2034f	601	675	638	608
2035f	632	704	668	638
2036f	654	725	690	660
2037f	675	744	710	680
2038f	702	770	736	706
2039f	721	787	754	724
2040f	738	803	771	741
2040f - 2049f			720	690

*Source: Roskill October 2019 Base Case Related Party and Arm's Length Prices 2019 – 2040

Life of Mine Financials

	A\$M
Revenues	7,185
Operating costs	(3,563)
Capital expenditure	
- pre-production	(240.5)
- sustaining	(24.9)
Royalties	(600)
Corporate tax	(818)
Life of Mine Project Free Cash flow	1,939

Capital Costs Summary

Main Area	Capital (A\$M)
Treatment Plant	76.2
Reagents & Plant Services	13.2
Infrastructure – general	41.2
Mining	8.5
Contractor and Construction Indirects	22.9
Subtotal	162.0
Management Costs	24.7
Owners Costs	22.7
Subtotal	47.4
Contingency	31.1
Project Total	240.5



Cash Opex (+/-25%)

Op. Cost	A\$/dmt ore processed	A\$/dmt
Mining	35.12	239.70
Processing	18.20	124.20
Transport/ Logistics	12.18	83.10
G & A	4.71	32.10
Other	0.52	3.60
Royalties	11.91	81.30
Total	82.64	564.00*

Process/G&A Opex (+/-25%)

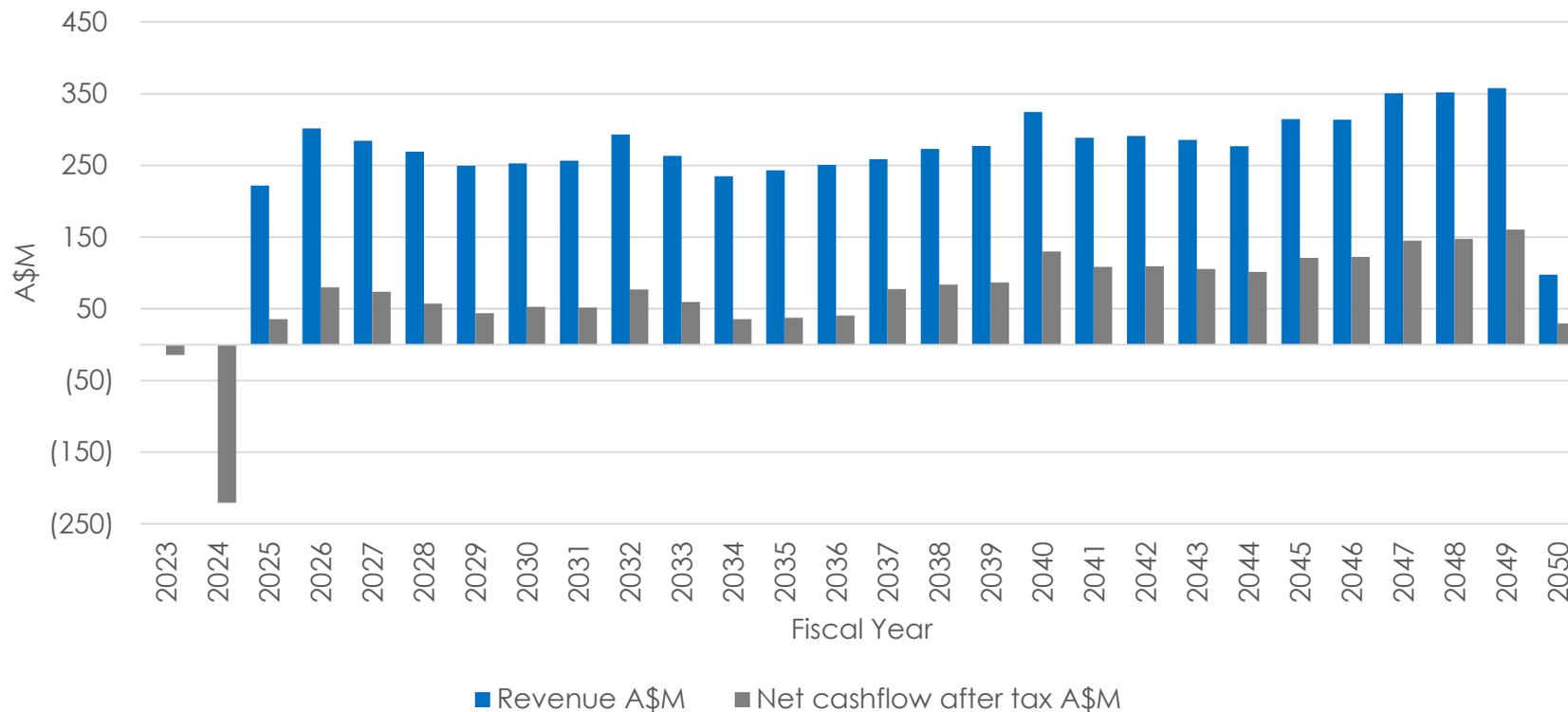
Cost Centre	A\$/dmt ore processed	Proportion
Mobile Equipment	0.32	1
Labour - Processing	3.40	15
Consumables	6.48	28
Power	4.28	19
Maintenance and Repairs	2.00	9
Laboratory	1.72	8
Sub Total	18.20	79
Labour - Admin	1.45	6
G & A Cost	3.26	14
Sub Total	4.71	21
Total	22.91	100



*Excludes credits for possible tantalum recovery which is supported by preliminary test work



A\$ Revenues and Net Cashflows (After Tax)



1 4 year payback period post production

2 LoM free cash flow of +\$1.9B

Peer Comparison Information – Mineral Resource Estimates



Company	Project	Stage	Measured Mt	Indicated Mt	Inferred Mt	Global MRE Mt	MRE Grade	Information Source
Liontown Resources	Kathleen Valley	Development	69.9	2.5	2.5	74.9	1.3	ASX Announcement, 9 July 2019 - https://www.ltresources.com.au/sites/default/files/asx-announcements/6936230.pdf
Pilbara Minerals	Pilgangoora	Operating	22.8	112.8	90.4	226	1.3	ASX Announcement, 17 Sept 2018 - http://www.pilbaraminerals.com.au/site/PDF/2235_0/PilgangooraReserveandResourceUpgrade
Wesfarmers / SQM / Kidman	Earl Grey	Development	66	106	17	189	1.5	ASX Announcement, 19 March 2018 - https://wcsecure.weblink.com.au/pdf/KDR/01963105.pdf
Talison / Tianqi	Greenbushes	Operating	0.6	117.9	2.1	120.6	2.4	NI 43-101 Technical Report 2012 - http://www.goldendragoncapital.com/greenbushes-lithium-mine/
Mineral Resources and Albemarle	Wodgina	Operating	0	177	59.9	236.9	1.2	ASX Announcement, 23 October 2018 http://clients3.weblink.com.au/pdf/MIN/02037855.pdf
Galaxy Resources	Mt Caittlin	Operating	2.2	9.9	4.6	16.7	1.28	ASX Announcement 23rd Jan 2019: https://www.asx.com.au/asxpdf/20190123/pdf/4420zn6jk8tl0q.pdf
Mineral Resources Ltd and Jiangxi Ganfeng	Mt Marion	Operating	0	22.70	48.7	71.3	1.37	ASX Announcement, 28th October: https://www.neometals.com.au/reports/2018-10-31-1697-MINMtMario.pdf
Altura Mining	Pilgangoora	Operating	8.7	38	3.8	50.5	1.01	Investor Presentation, 21 March 2019: https://alturamining.com/wp-content/uploads/2019/03/1912571.pdf
Alliance Mineral Assets Ltd	Bald Hill	Operating	0	14.4	12.1	26.5	1.0	Investor Presentation, March 2019: http://www.allianceminerals.com.au/wp-content/uploads/2019/03/02088109.pdf
Nemaska Exploration	Whabouchi	Development	17.0	20.6	16.1	53.7	1.45	Website, 18th June 2019: https://www.nemaskalithium.com/en/whabouchi/lithium-resources-reserves/

Exploration Target Parameters and Assumptions



Parameter	KV Feeder Zone	KV North West	Rationale
Combined strike length of pegmatites	1100m	400	Based on previous drilling and extrapolation of block model used in preparation of Mineral Resource Estimate (released 4 th 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.

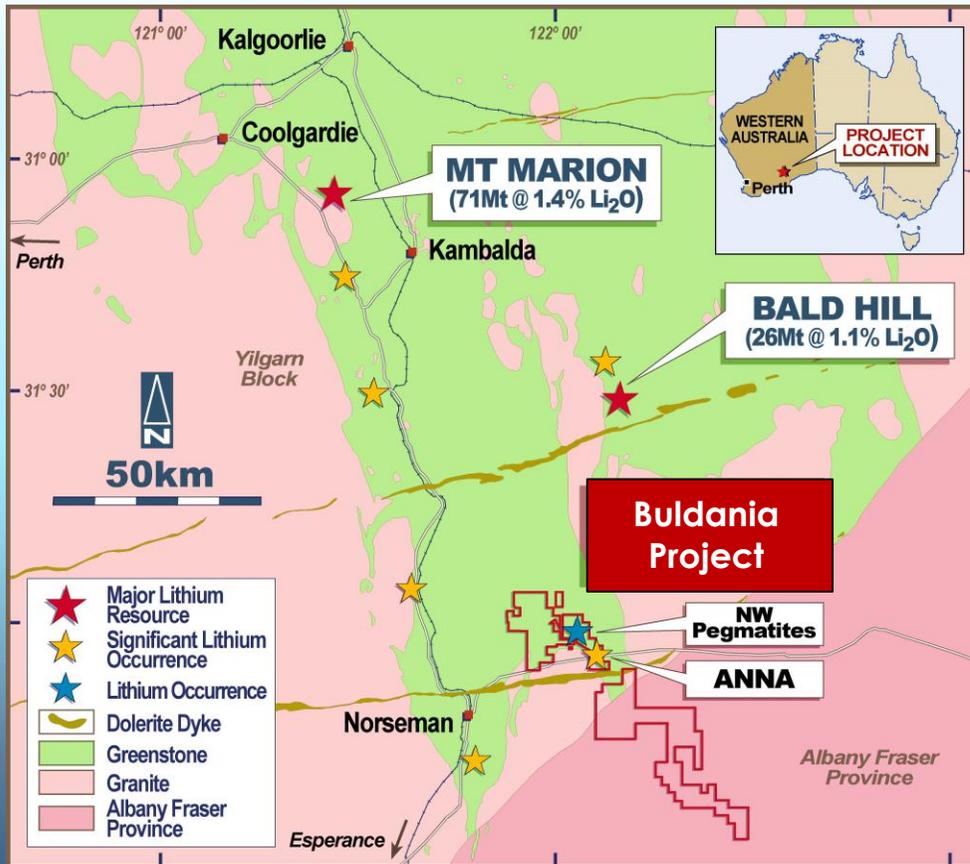
APPENDIX 2



Buldanía Lithium Project
(Liontown 100%)



Buldania is Located in a Lithium-Rich Mineral Province



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

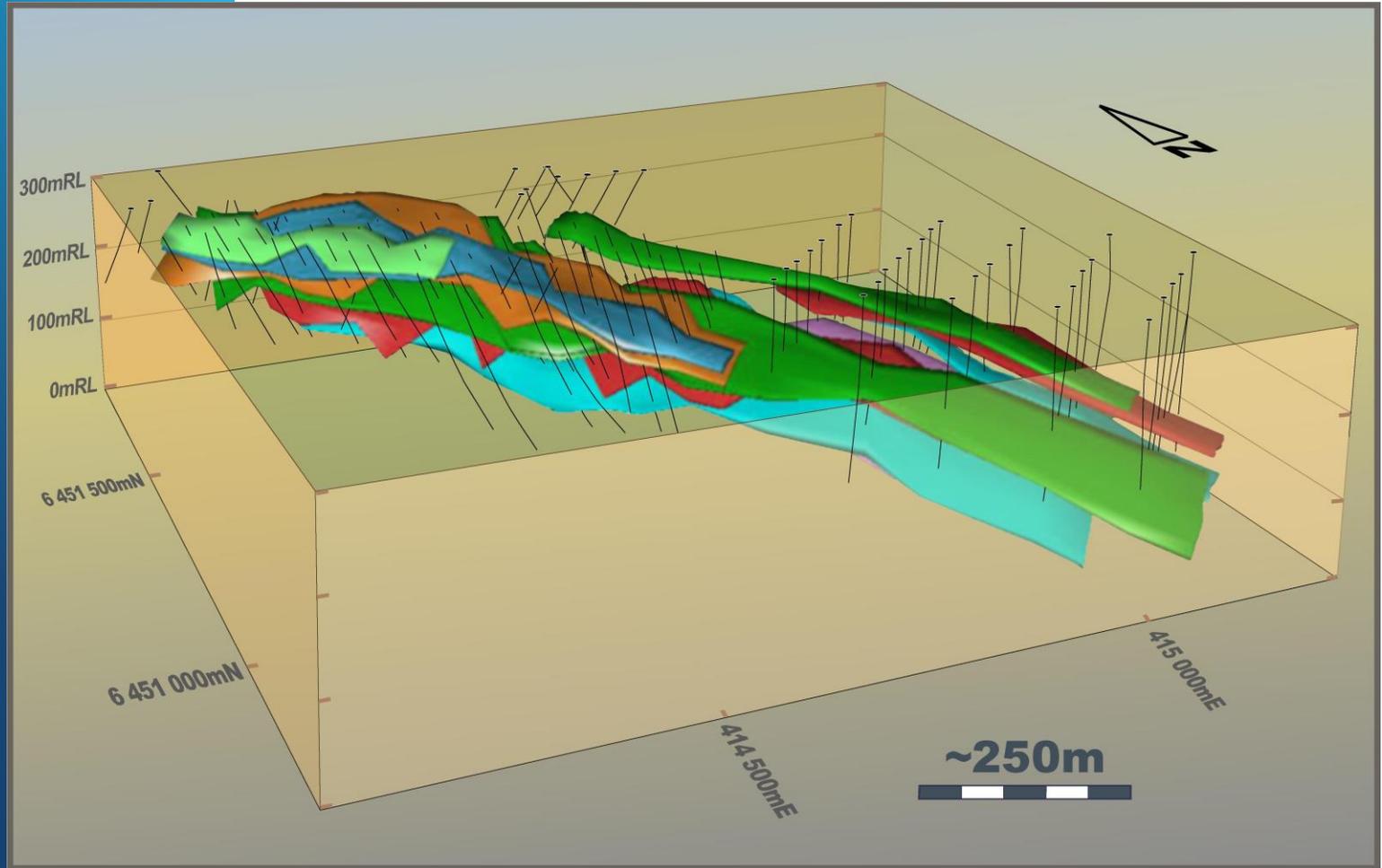
5

Liontown has 100% of the lithium and related metal rights

6

Part of larger, +300km² strategic land holding

Maiden Mineral Resource Estimate 14.9Mt @ 1.0% Li₂O



The completion of the MRE
complements flagship Kathleen Valley
Lithium Project



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