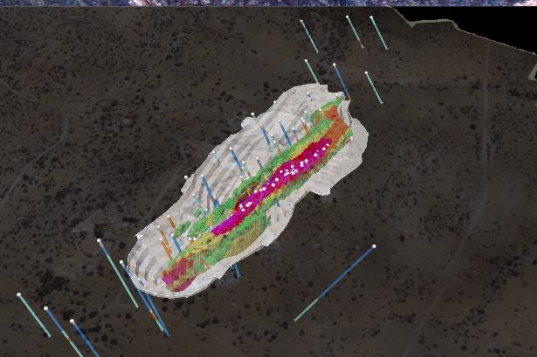




THE GEOLOGICAL SOCIETY OF NAMIBIA

Windhoek, 1-4 Sep 2019

50th Anniversary
Conference
1969 - 2019



Geological & Mineral Resource Overview of the Rubicon and Helikon Lithium Deposits, Namibia

Mike Venter
Consulting Geologist

Simon Kahovera
Exploration Manager

4 September 2019

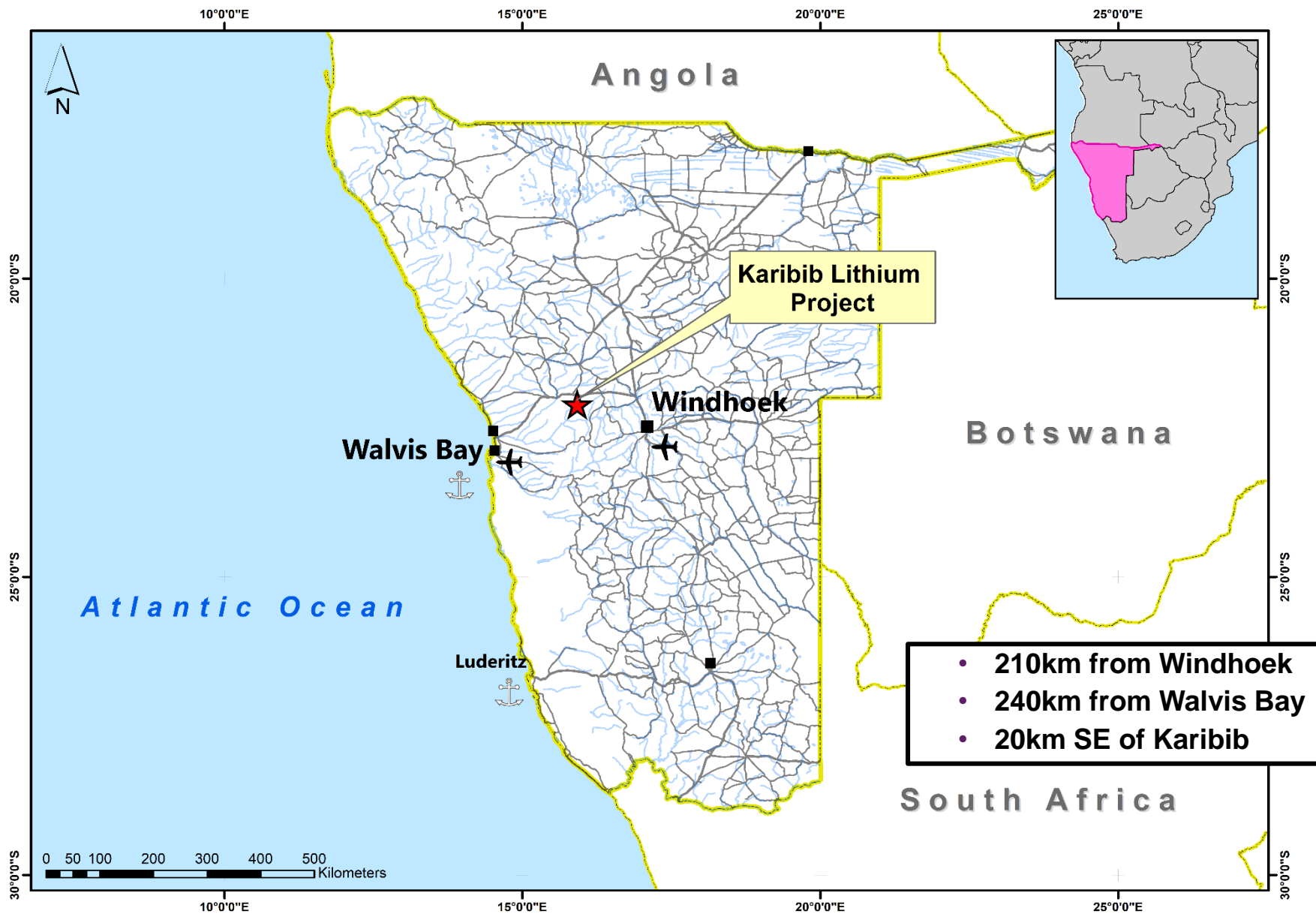
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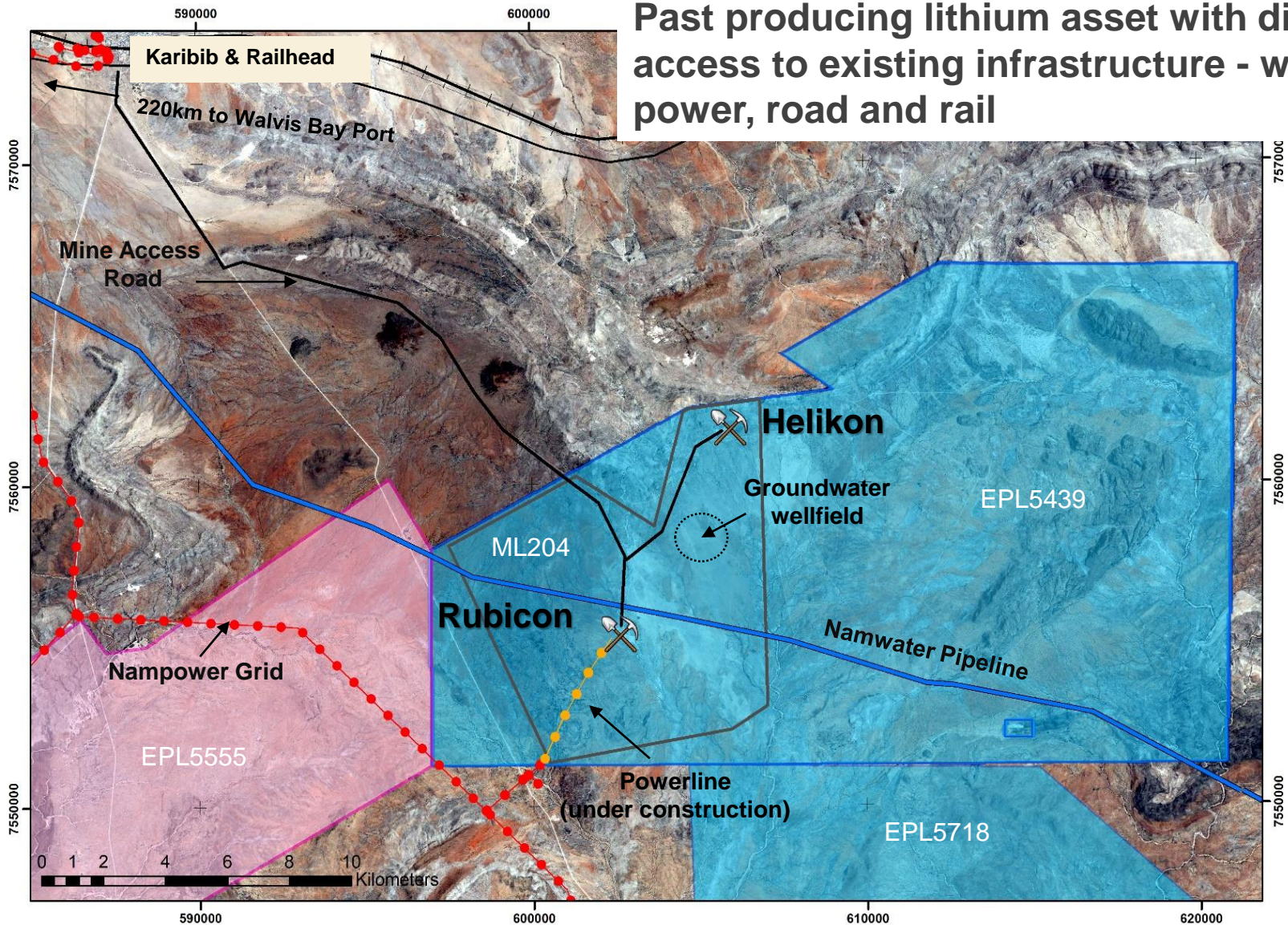
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COMTETENT PERSONS STATEMENT

The information in this presentation that relates to the geology, interpretation and any exploration results is based on information compiled and reviewed by Mr Mike Venter, a Competent Person who is a fellow of The Society of Economic Geologists and Pr. Sci. Nat. (Geological Sciences) registered with the South African Council for Natural Professions, a Recognised Professional Organisation (RPO). Mr Venter has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Venter 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 is based on information compiled by Mr Jeremy Witley, who is a fellow of The Geological Society of South Africa (GSSA) and is registered professional with the South African Council for Natural Scientific Professions (SACNSAP). Mr Witley is the Head of Mineral Resources at The MSA Group (Pty) Ltd (an independent consulting company). Mt Witley has sufficient experience relevant to the style of mineralisation and the types of deposit under consideration, and to the activity he is undertaking, 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 Witley consents to the inclusion in this report of information compiled by him in the form and context in which it appears.

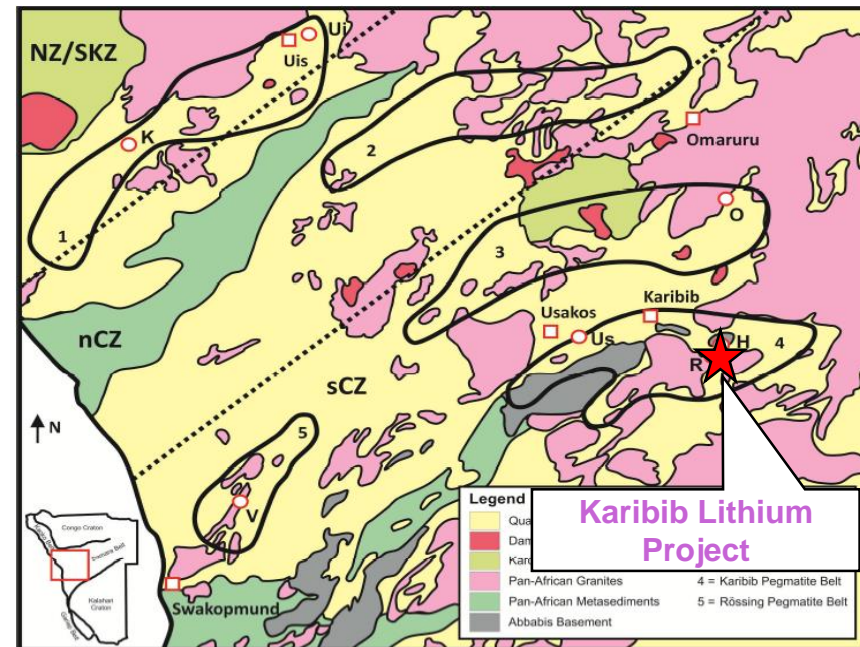
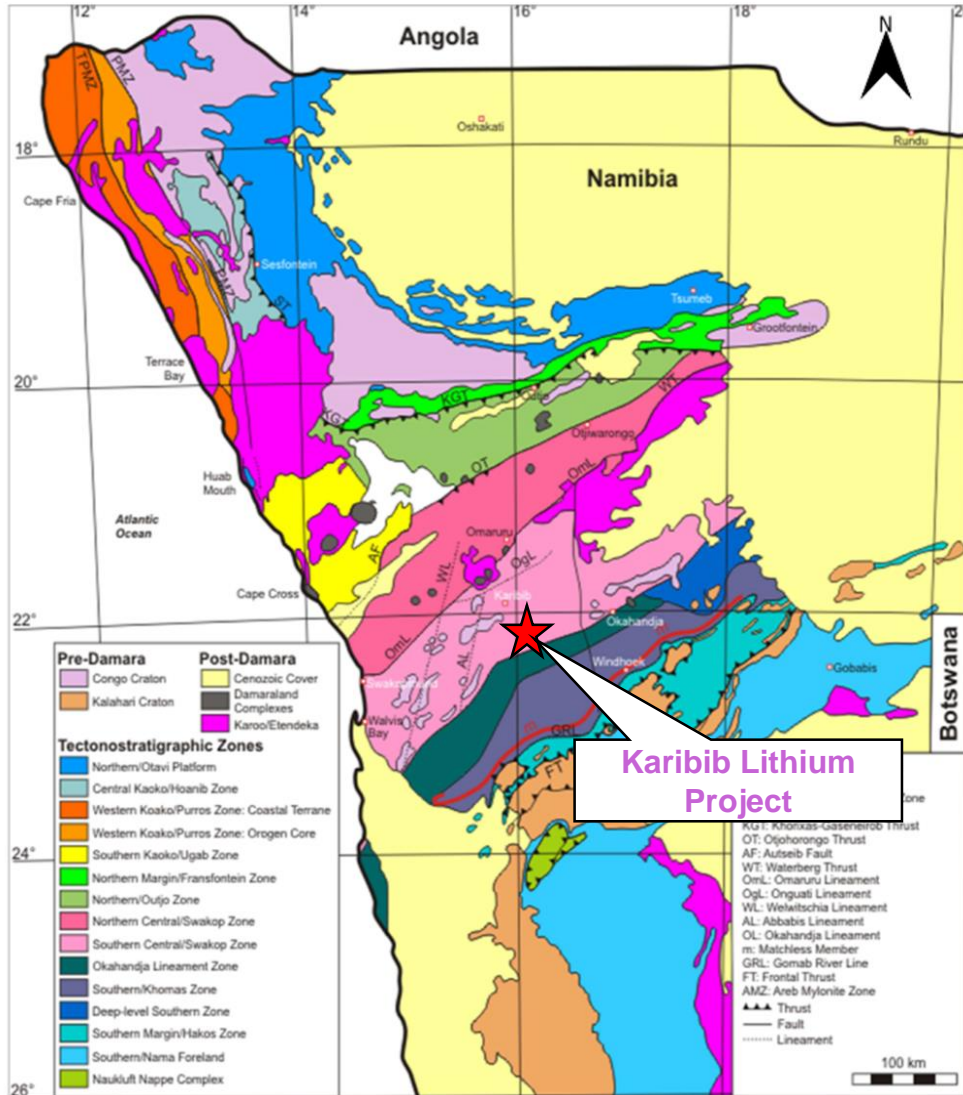




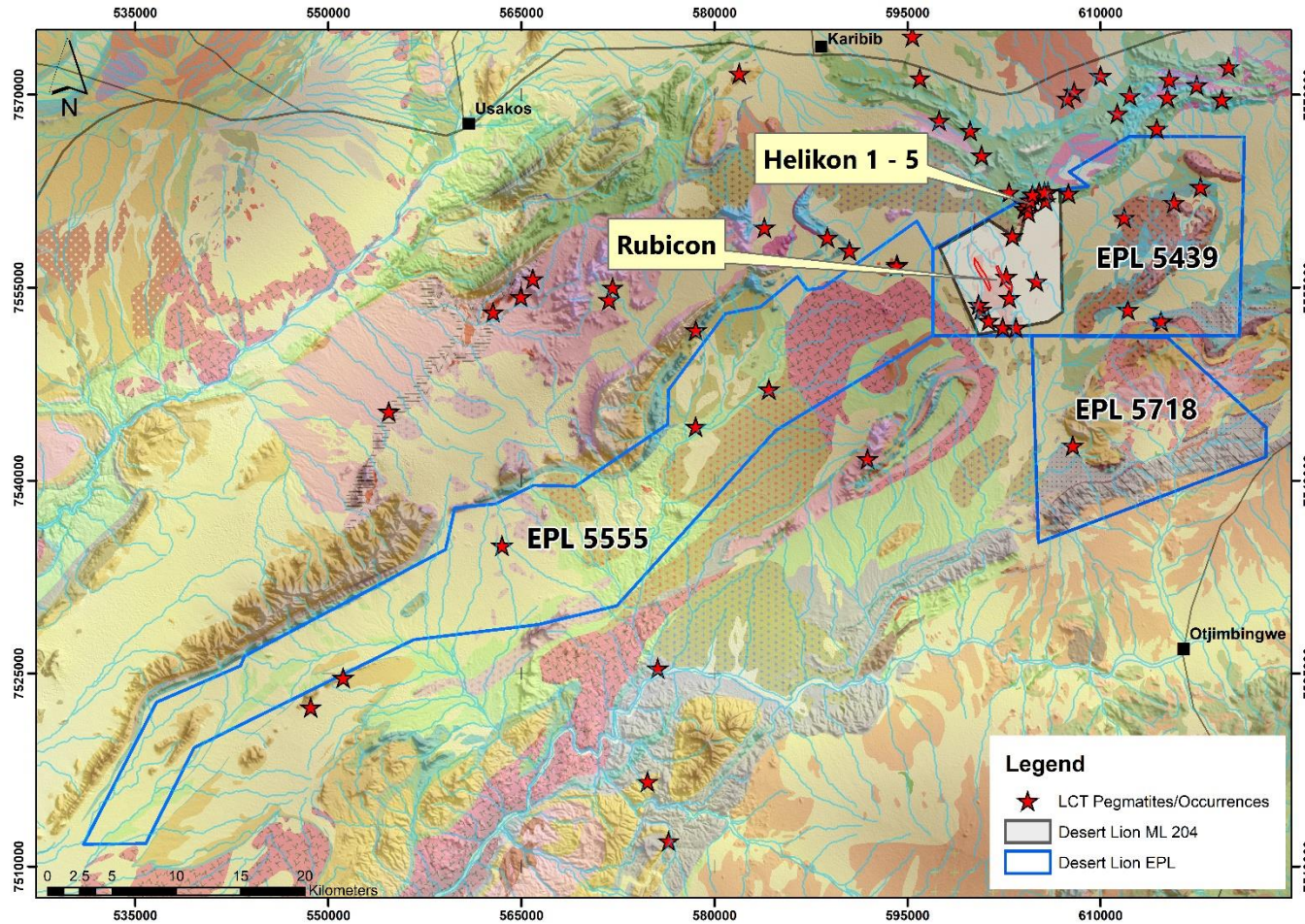
Past producing lithium asset with direct access to existing infrastructure - water, power, road and rail

Geological Setting

- KLP located in southern Central Zone of the NeoProterozoic Damara Belt
- Host to numerous world class mineral deposits – Au, U, Sn, base metals as well as pegmatites belong to the Li-Cs-Ta (“LCT”) group of pegmatites
- Damara belt intruded by 500Ma syn and post tectonic granites includes numerous pegmatites and granite dykes of which Rubicon and Helikon are two well mineralized examples
- Pegmatites occur in five major belts, well zoned LCT type located within Karibib & Southern Tin Belts



Karibib Lithium Project Geology



- 3 EPL's (1 054 km²) land package
- Mining License ML204 (68km²)

- Pegmatites belong to the Karibib Pegmatite Field, associated with the Pan African Age (500Ma) Granites that intrude Damaran rocks of central Namibia
- Pegmatites belong to the Li-Cs-Ta ("LCT") group of pegmatites that are hosted proximal to and within source granites
- Rubicon, Helikon 1 – 5 have all been exploited at different intensities since their discovery in the 1930's.
- Lithium bearing minerals lepidolite, petalite and amblygonite produced, along with accessory beryl, quartz, tantalite, mica and bismuth

KLP Exploration History & Production

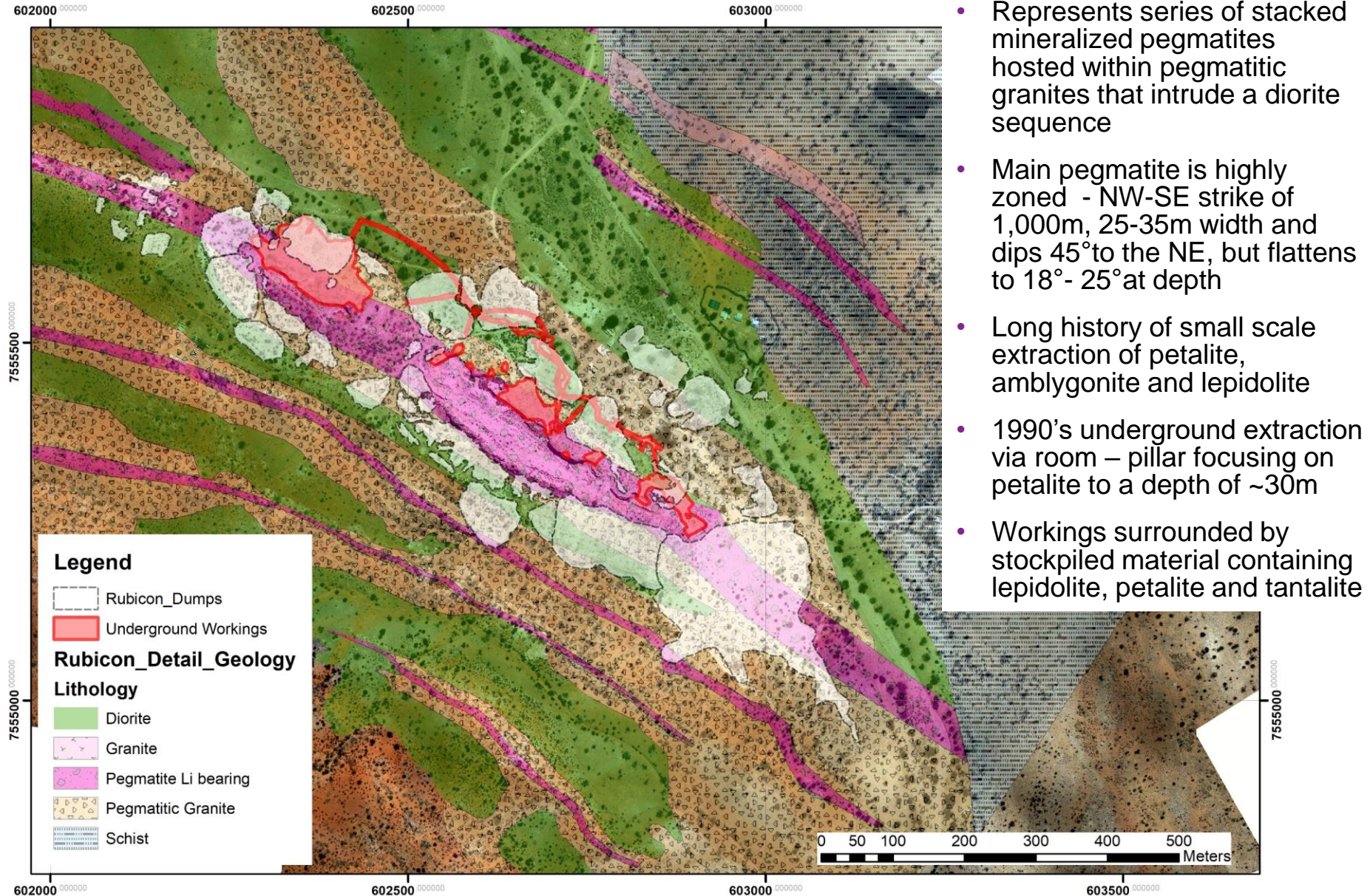
- **1927 – 1932 – Regional mapping, discovery and first study of Rubicon and Helikon by De Kock**
- **1964 – Completion of a PhD by Roering over Rubicon and Helikon**
- **1968 – Anglo American drilled 7 shallow holes totalling 481m (no data)**
- **1990 – Detailed study of Rubicon by Diehl and Schneider**
- **1990 – 1997 – Namibian Lithium Mines completed 825m underground development, including 2 raises as well as completion of 11 horizontal drill holes for 500m. No sampling carried out on drilling. Focus was purely on petalite extraction.**
- **2009 – 2011 – Black Fire Minerals completed drilling of 12 holes at Rubicon for 1169m and 1 hole at Helikon 1**
- **2017 – 2019 – Desert Lion Energy (Pty) Ltd acquisition, inaugural Mineral Resource and trial production**
- **July 2019 – Present – Lepidico/Desert Lion combination, inaugural Ore Reserve estimate in progress; development target CY2020**

Year	Petalite (t)	Amblygonite (t)	Lepidolite (t)	Beryl (t)	Quartz (t)	Mica (t)
1980	677	85	0	1	656	218
1981	330	54	863	-	1921	39
1982	1598	53	179	2	2687	203
1983	629	71	424	-	90	78
1984	1045	36	18	3	18	107
1985	1785	74	166	2	1195	-
1986	1071	36	43	2	956	-
1987	151	116	46	-	1837	19
1988	2053	153	14	-	-	-
1989	1346	124	42	-	-	-
1990	1089	37	40	-	-	-
1991	950	20	34	0.1	-	-
1992	-	-	-	-	-	-
1993	674.4	-	87.4	5	-	-
1994	1335.2	21.5	46.37	-	-	-
TOTAL	14733.6	880.5	2002.77	15.1	9360	664



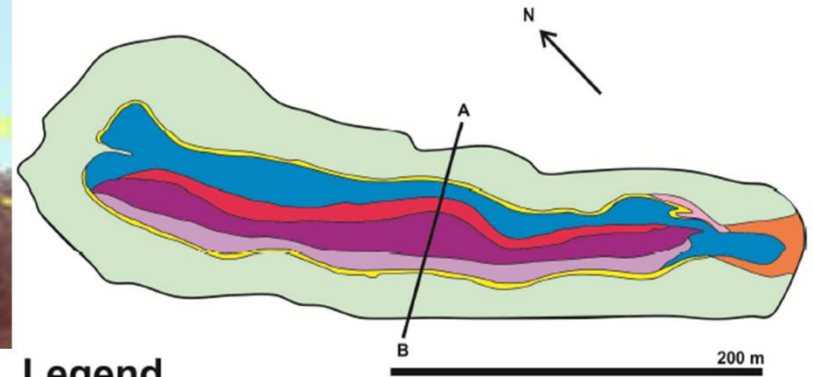
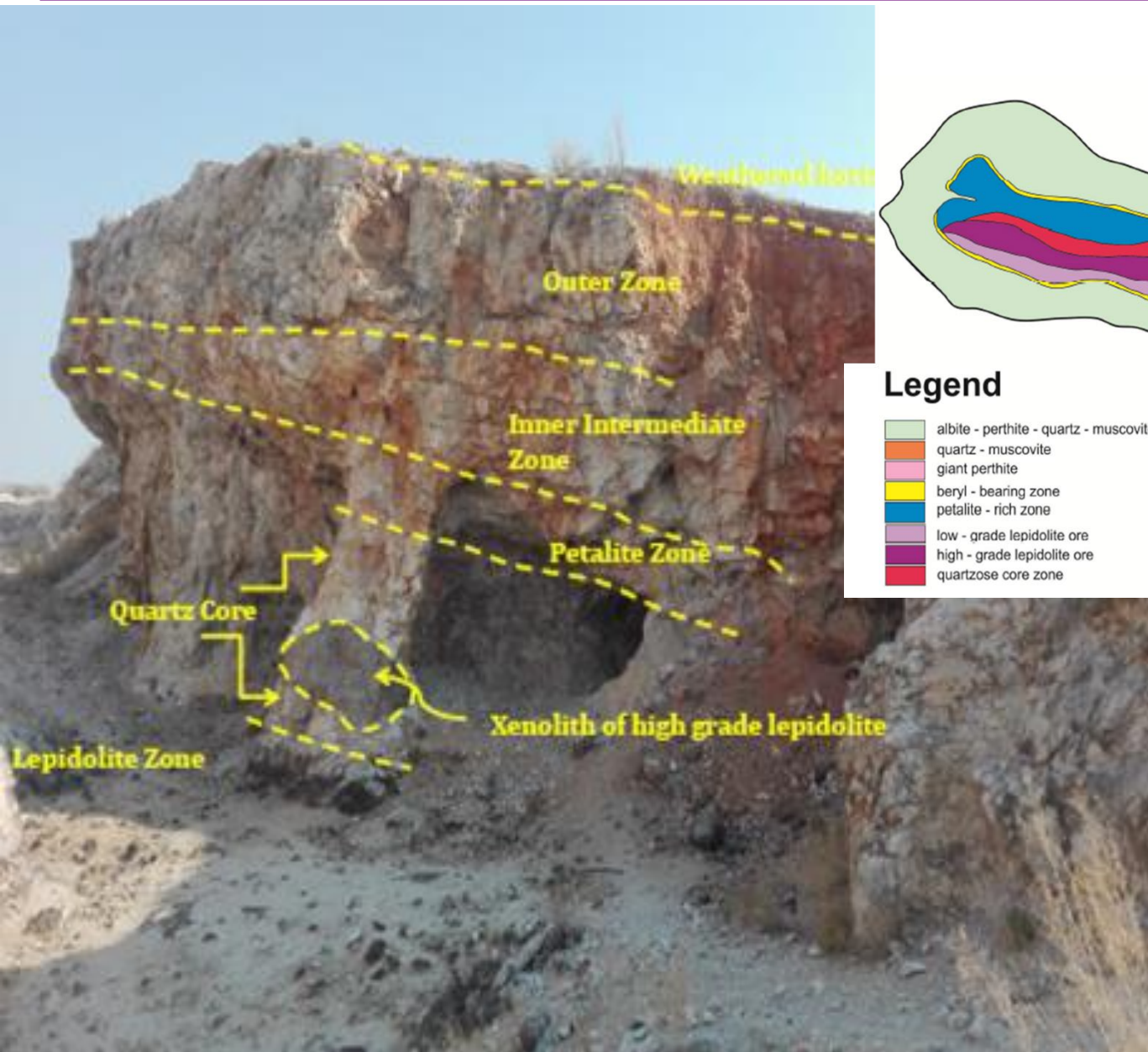
Rubicon Open Stope - petalite

Rubicon Geology



- Represents series of stacked mineralized pegmatites hosted within pegmatitic granites that intrude a diorite sequence
- Main pegmatite is highly zoned - NW-SE strike of 1,000m, 25-35m width and dips 45° to the NE, but flattens to 18° - 25° at depth
- Long history of small scale extraction of petalite, amblygonite and lepidolite
- 1990's underground extraction via room – pillar focusing on petalite to a depth of ~30m
- Workings surrounded by stockpiled material containing lepidolite, petalite and tantalite

Rubicon Deposit Geology

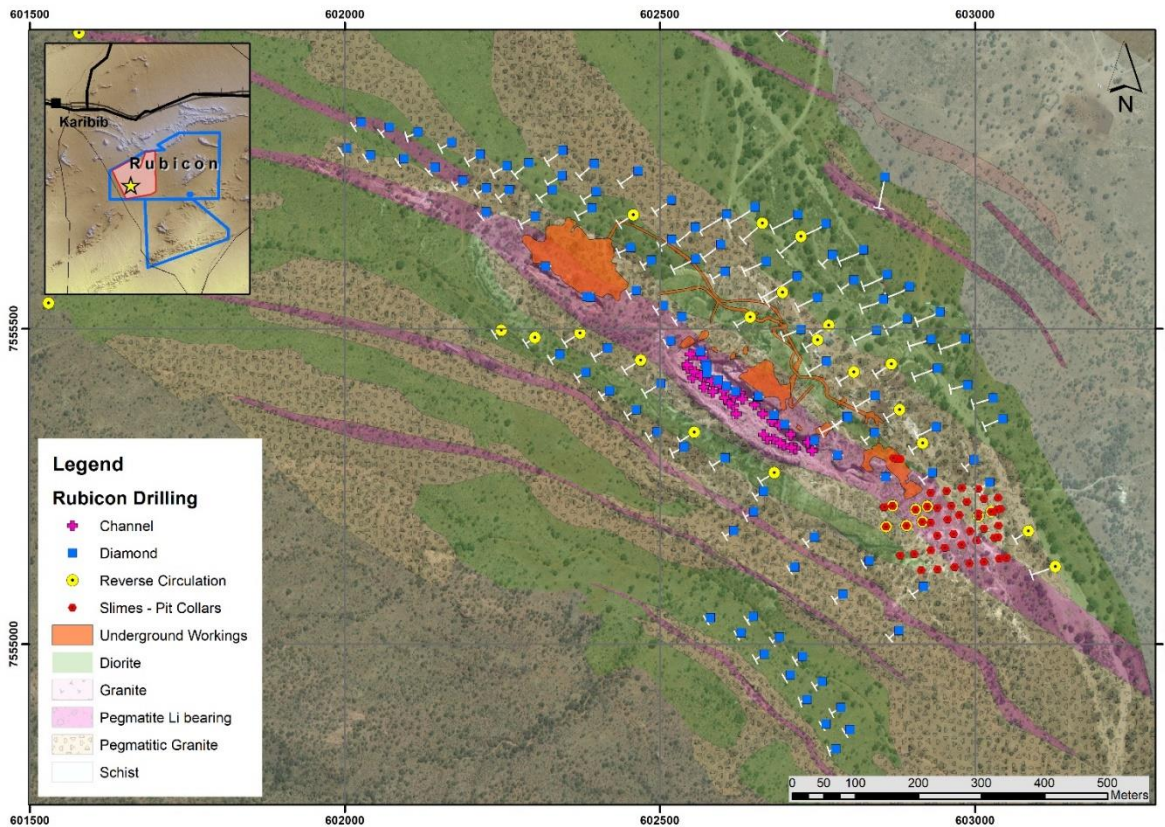


Legend

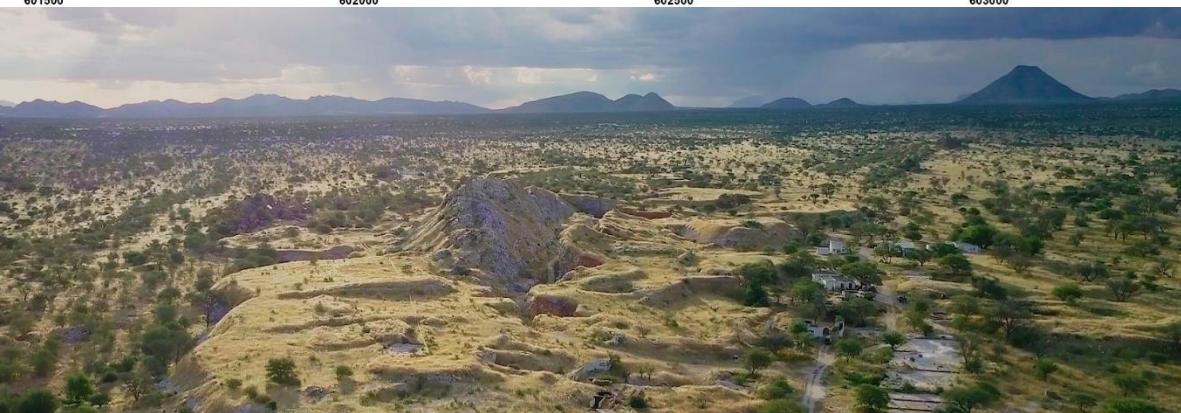
Light green	albite - perthite - quartz - muscovite
Orange	quartz - muscovite
Pink	giant perthite
Yellow	beryl - bearing zone
Blue	petalite - rich zone
Light purple	low - grade lepidolite ore
Dark purple	high - grade lepidolite ore
Red	quartzose core zone

- Rubicon is a classic example of highly fractionated/evolved and zoned LCT pegmatite
- Lepidolite and petalite mineralization restricted to Intermediate and Core Zones
- Primary, replacement and secondary lithium mineralization observed

Rubicon: Exploration Summary

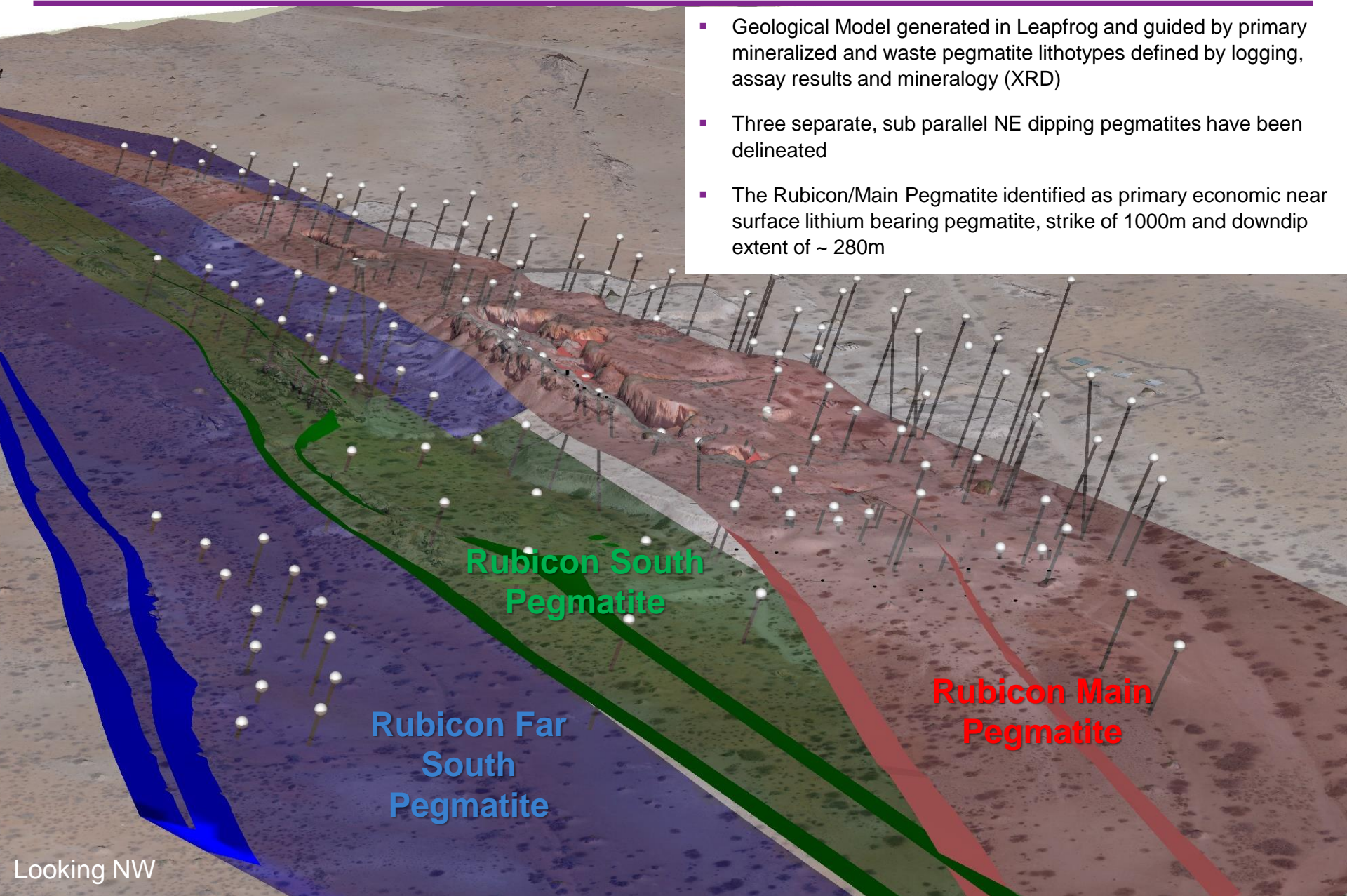


- Since March 2017, following completed over Rubicon:
 - ~10,000 m of DD and RC
 - ~ 2,700m RC Dump Drilling
 - Channel, trench and pitting sampling
 - Ground magnetic survey
 - Mineralogical studies (XRD)
- Maiden MRE declared at Rubicon Oct 2018, JORC (2012) July 2019:
 - **Indicated Resources: 3Mt @ 0.63% Li₂O**
 - **Inferred Resources: 1.6Mt @ 0.58% Li₂O**
 - **Slimes: Ind + Inf: 69kt @ 0.90% Li₂O**
- Modelled strike of 1,200m and downdip to 280m, the deposit remains open downdip to the NE
- Infill and step out drilling to improve confidence in MRE and to increase resource tonnes
- FW pegmatites to be tested through deeper drilling and HW pegmatites to NW to be further tested



Rubicon Geological Model

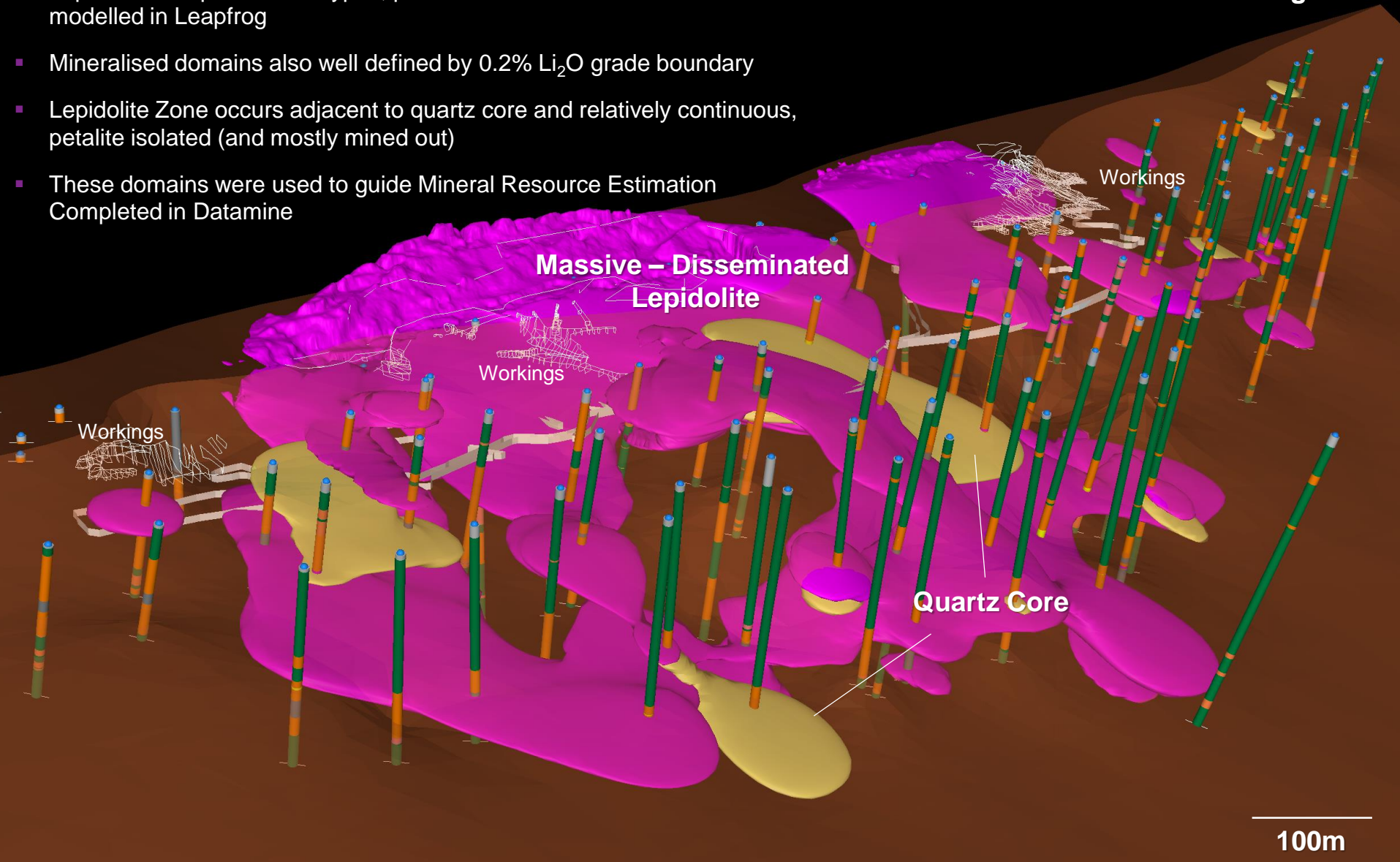
- Geological Model generated in Leapfrog and guided by primary mineralized and waste pegmatite lithotypes defined by logging, assay results and mineralogy (XRD)
- Three separate, sub parallel NE dipping pegmatites have been delineated
- The Rubicon/Main Pegmatite identified as primary economic near surface lithium bearing pegmatite, strike of 1000m and downdip extent of ~ 280m



Rubicon Geological Model

Looking West

- Lepidolite and petalite lithotypes, plus Quartz Core and other internal waste modelled in Leapfrog
- Mineralised domains also well defined by 0.2% Li_2O grade boundary
- Lepidolite Zone occurs adjacent to quartz core and relatively continuous, petalite isolated (and mostly mined out)
- These domains were used to guide Mineral Resource Estimation Completed in Datamine



Rubicon Mineral Resource Estimate

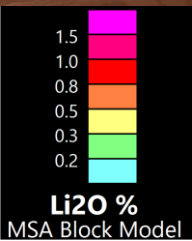
Looking West

Rubicon Main *in situ*¹

Indicated: 3.0Mt @ 0.63% Li₂O
Inferred: 1.6Mt @ 0.58% Li₂O

Rubicon Slimes¹

Indicated: 62.2kt @ 0.97% Li₂O
Inferred: 7.2kt @ 0.80% Li₂O

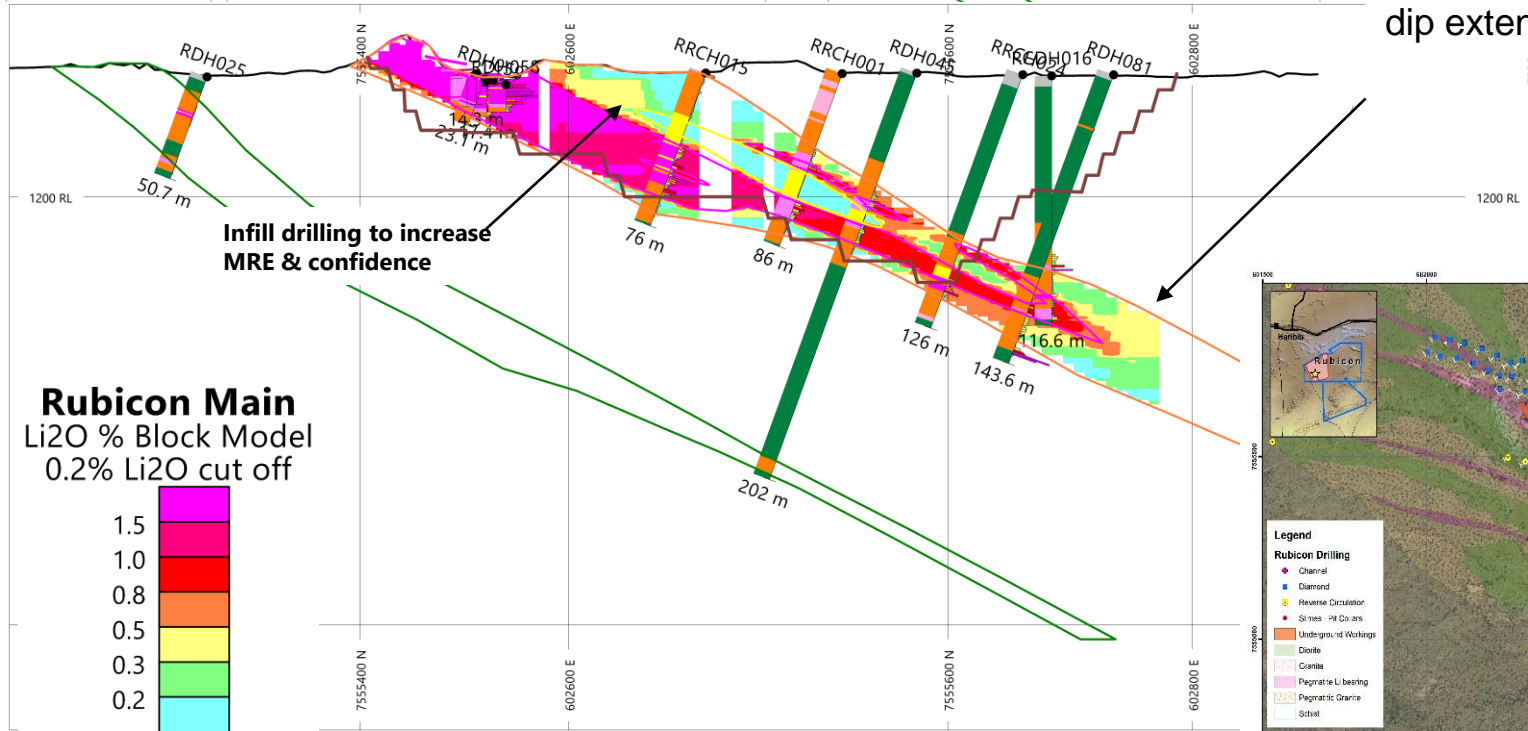
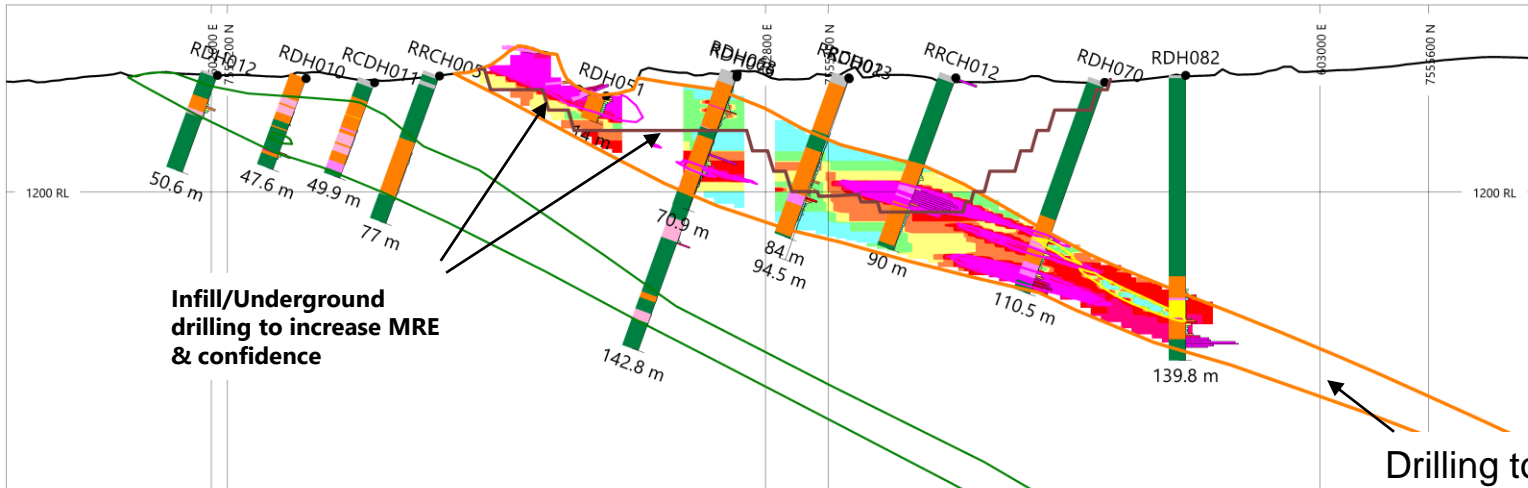


100m

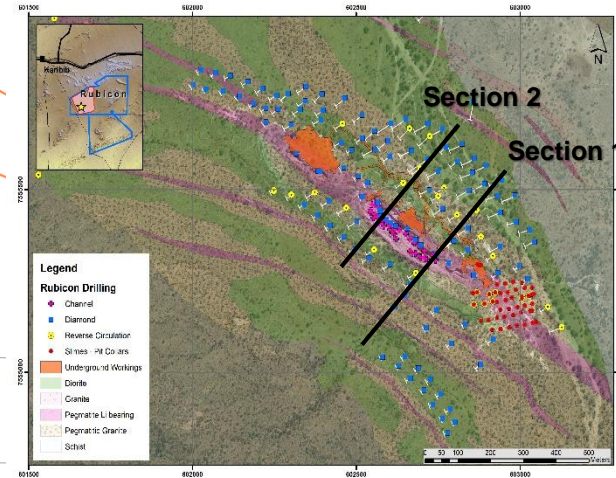
Deposit remains open downdip

¹ Reported at 0.2% Li₂O cutoff. The JORC Code 2012 compliant MRE for the Rubicon and Helikon MRE's can be found on Lepidico's website (www.lepidico.com)

Rubicon Dip Sections

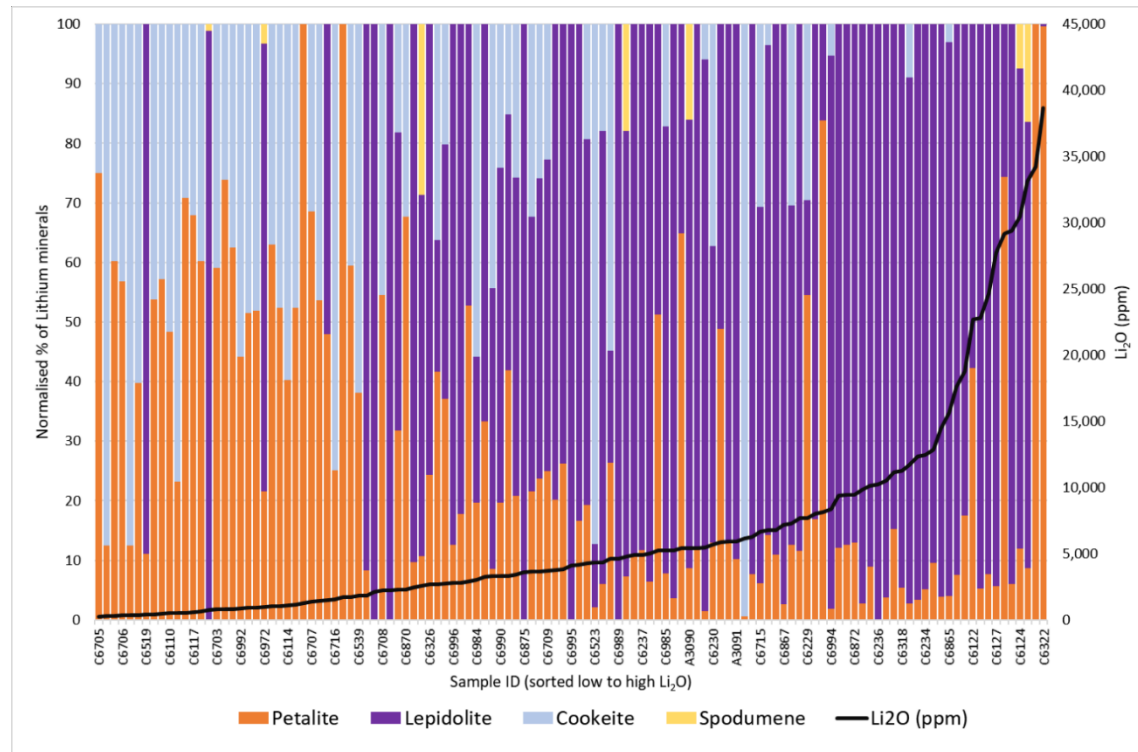
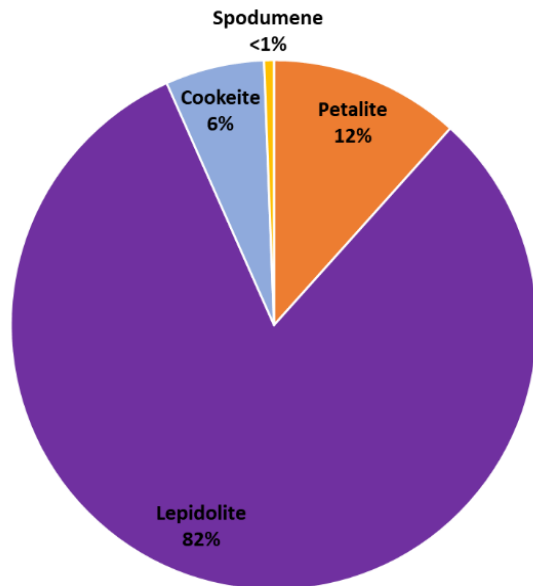


Drilling to test down dip extensions



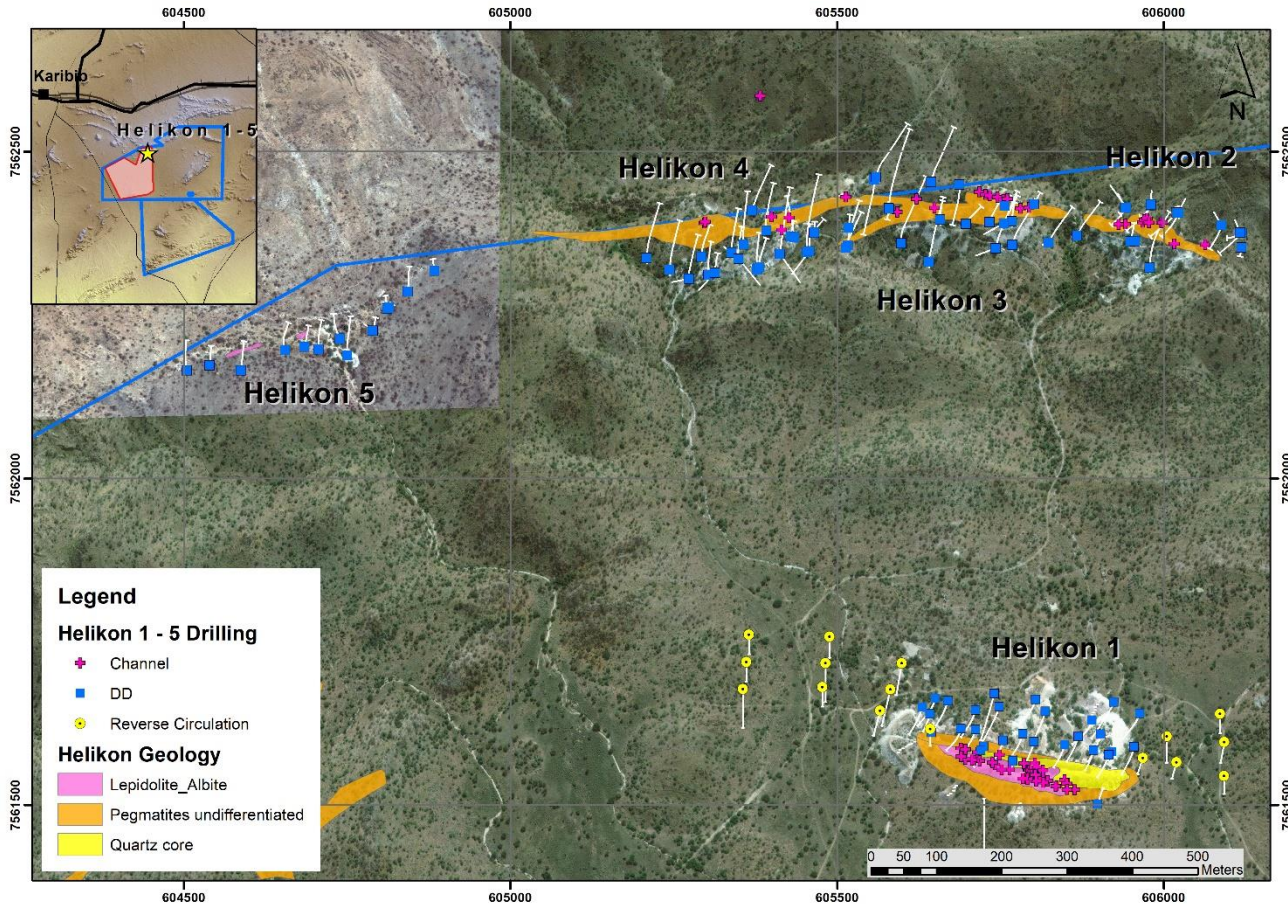
Rubicon Mineralogy - XRD

- 121 samples drawn from 7 drillholes located along strike and down dip and from a range of Li_2O grades
- Assay validated XRD analyses completed
- Lepidolite occurs as the main Li bearing mineral, petalite, cookeite with traces of spodumene
- Petalite typically occurs as isolated high grade lenses at FW and HW contacts to lepidolite mineralisation



- Gangue minerals comprise quartz, albite, microcline, apatite and beryl
- High lepidolite concentrations generally correspond to high lithia content
- Samples containing $>0.2\%$ Li_2O show $>80\%$ Lepidolite, 12% petalite, 6% Cookeite

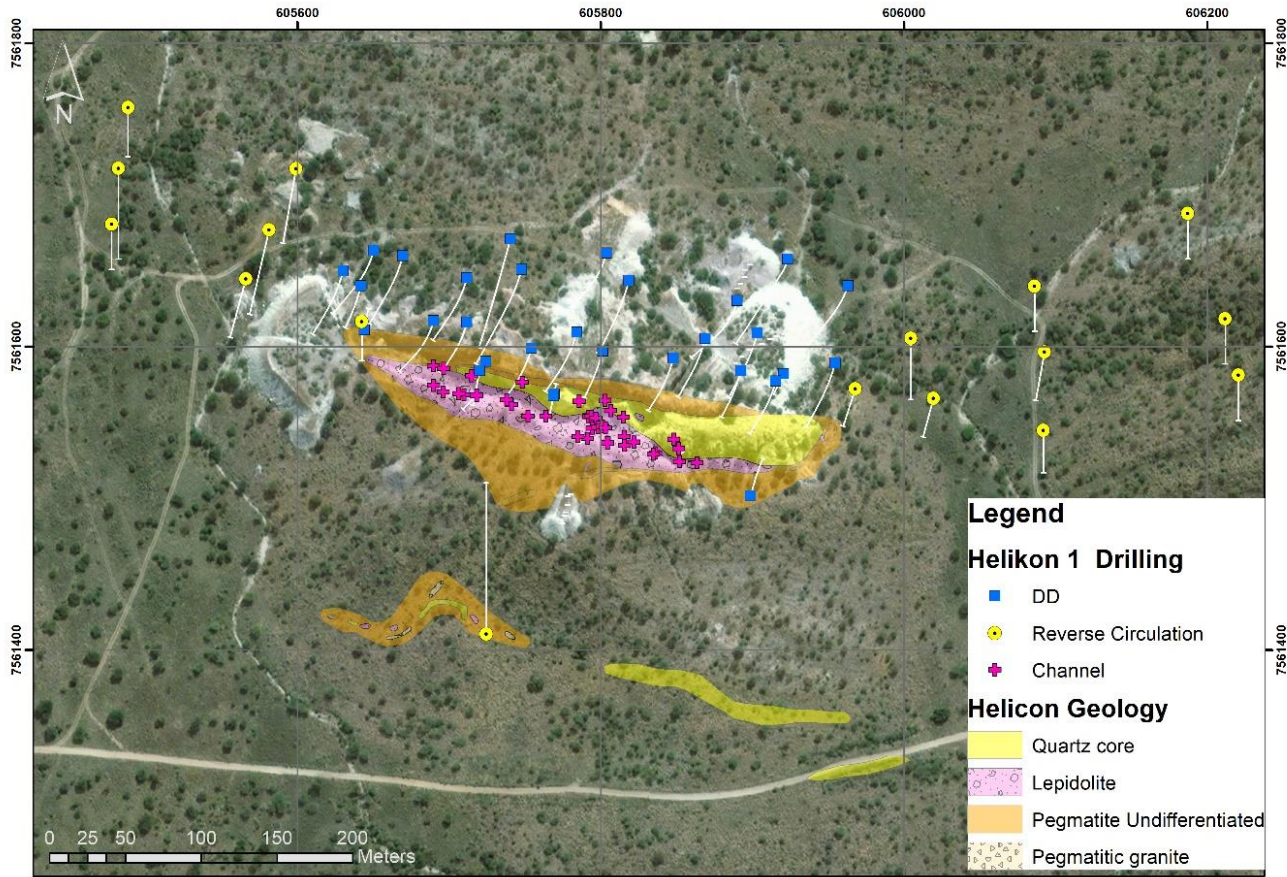
Helikon 1 – 5 Exploration Summary



- Helikon represents a series of *en echelon* stacked sub parallel variably dipping pegmatites hosted within marbles and calc silicates.
- Helikon 2-5 cumulative strike length of 1,500m
- Contain lepidolite, petalite and tantalite mineralization – all have been previously mined
- Since March 2017, following completed over Helikon 1 - 5:
 - 11,500m DD and RC Drilling
 - 1,200m RC Dump Drilling
 - Channel and trench sampling
- Maiden MRE declared at H1 - 5 Oct 2018:
 - **Total Inferred Resources:**
4.2Mt @ 0.47% Li₂O
- Infill and step out drilling at H1 to improve confidence in MRE and to increase resource tonnes



Helikon 1 Geology

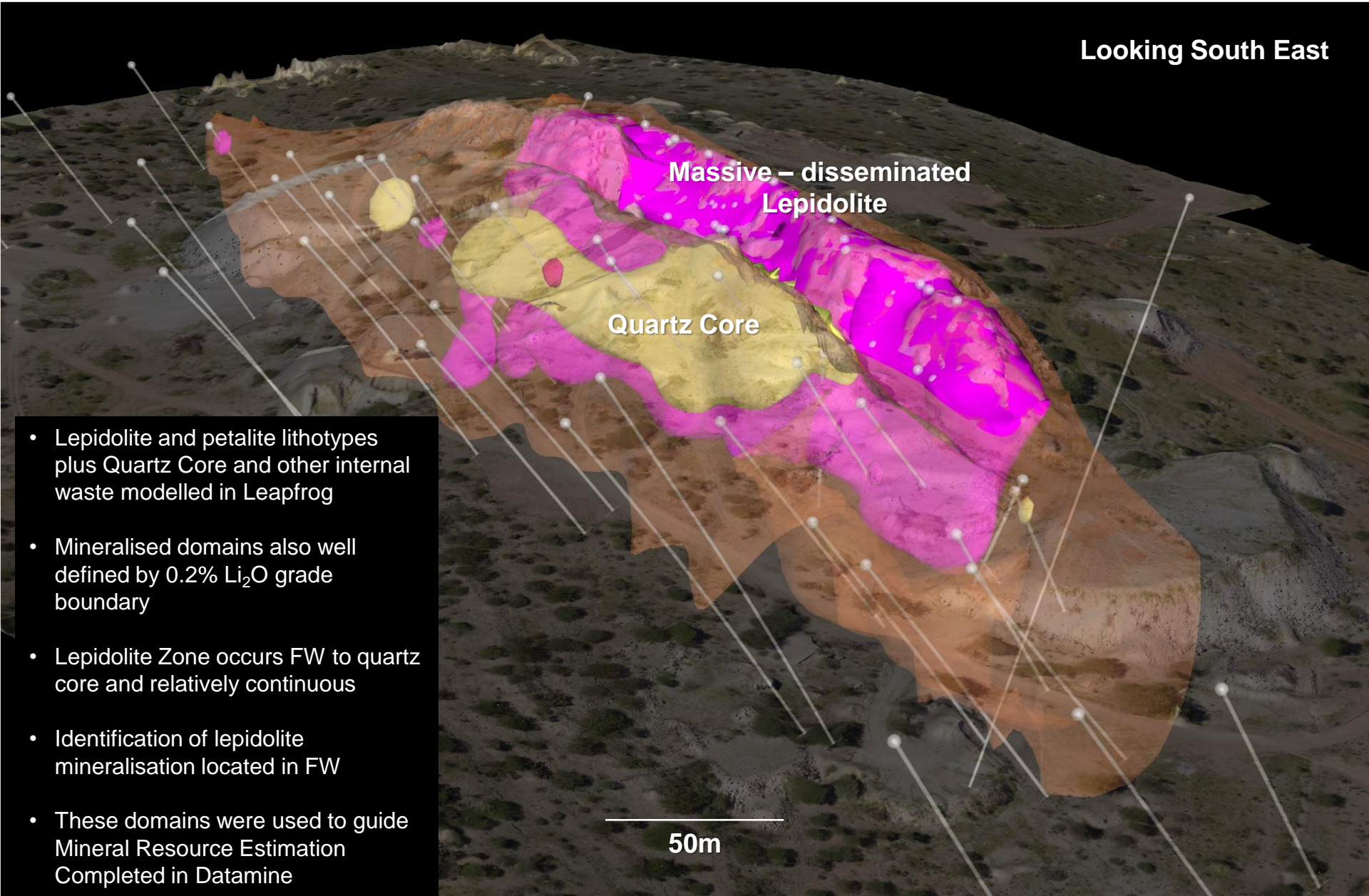


- Helikon 1 is an elongate shaped lensoidal well zoned pegmatite with a strike of ~ 450m, with average widths of 60m and dips 60 – 70° N
- Hosted within calc silicates and marbles as are all the other Helikon deposits
- Simple zonation
 - Wall Zone
 - Intermediate Zone, with petalite
 - Core Zone including Lepidolite-albite zone, Quartz Core, incl cleavelandite-beryl
- Anomalous Ta, Be and Cs
- Drilling has confirmed limited downdip (~70m) and immediate strike extents to Helikon 1, however FW mineralized pegmatite to be tested



Helikon 1 Geological Model

Looking South East



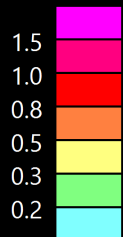
- Lepidolite and petalite lithotypes plus Quartz Core and other internal waste modelled in Leapfrog
- Mineralised domains also well defined by 0.2% Li_2O grade boundary
- Lepidolite Zone occurs FW to quartz core and relatively continuous
- Identification of lepidolite mineralisation located in FW
- These domains were used to guide Mineral Resource Estimation Completed in Datamine

Helikon 1 Mineral Resource Estimate

Looking ESE

Helikon 1¹
Inferred: 2.0Mt @ 0.62% Li₂O &
105ppm Ta₂O₅

PEA Pit Outline



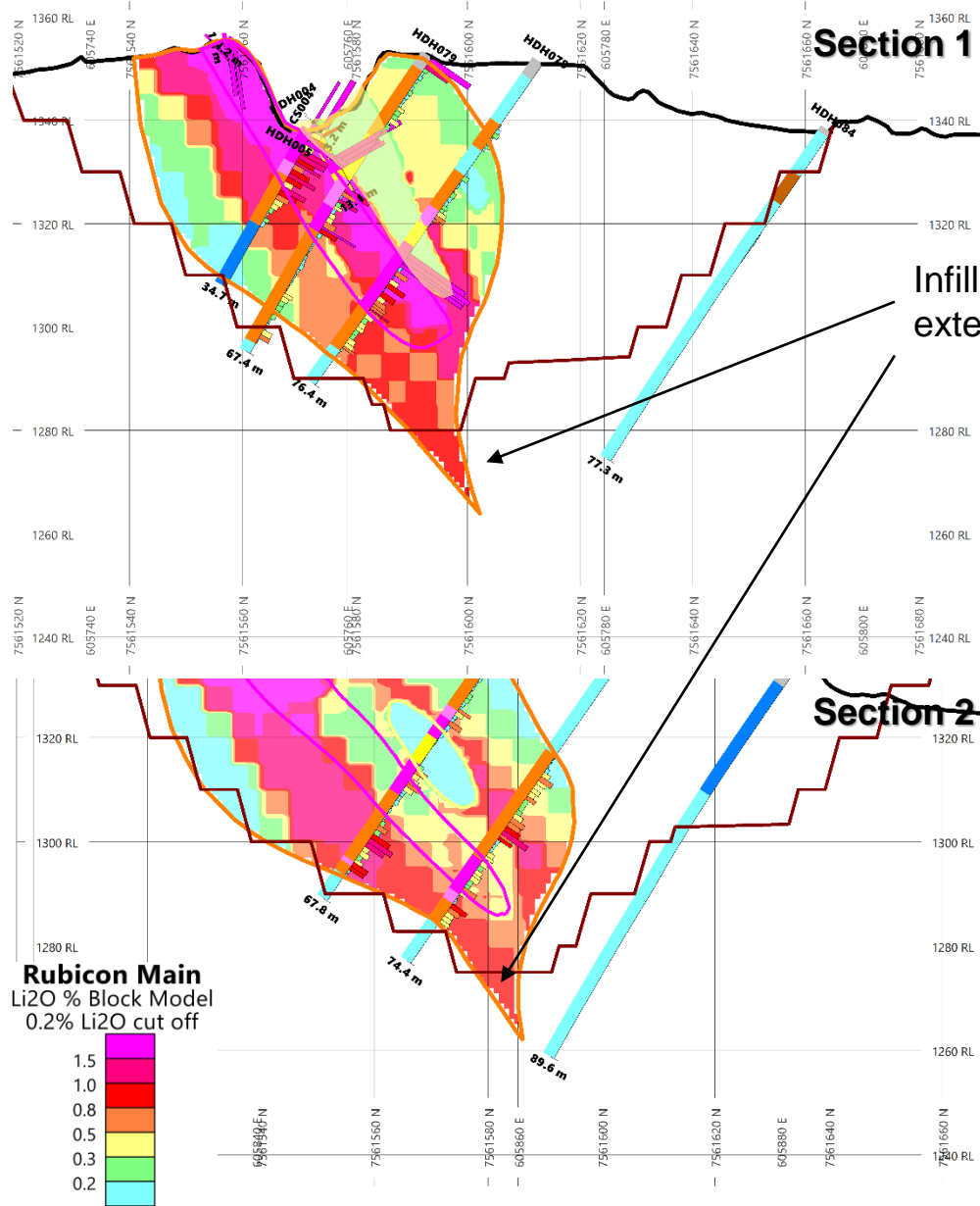
Li₂O %

MSA Block Model

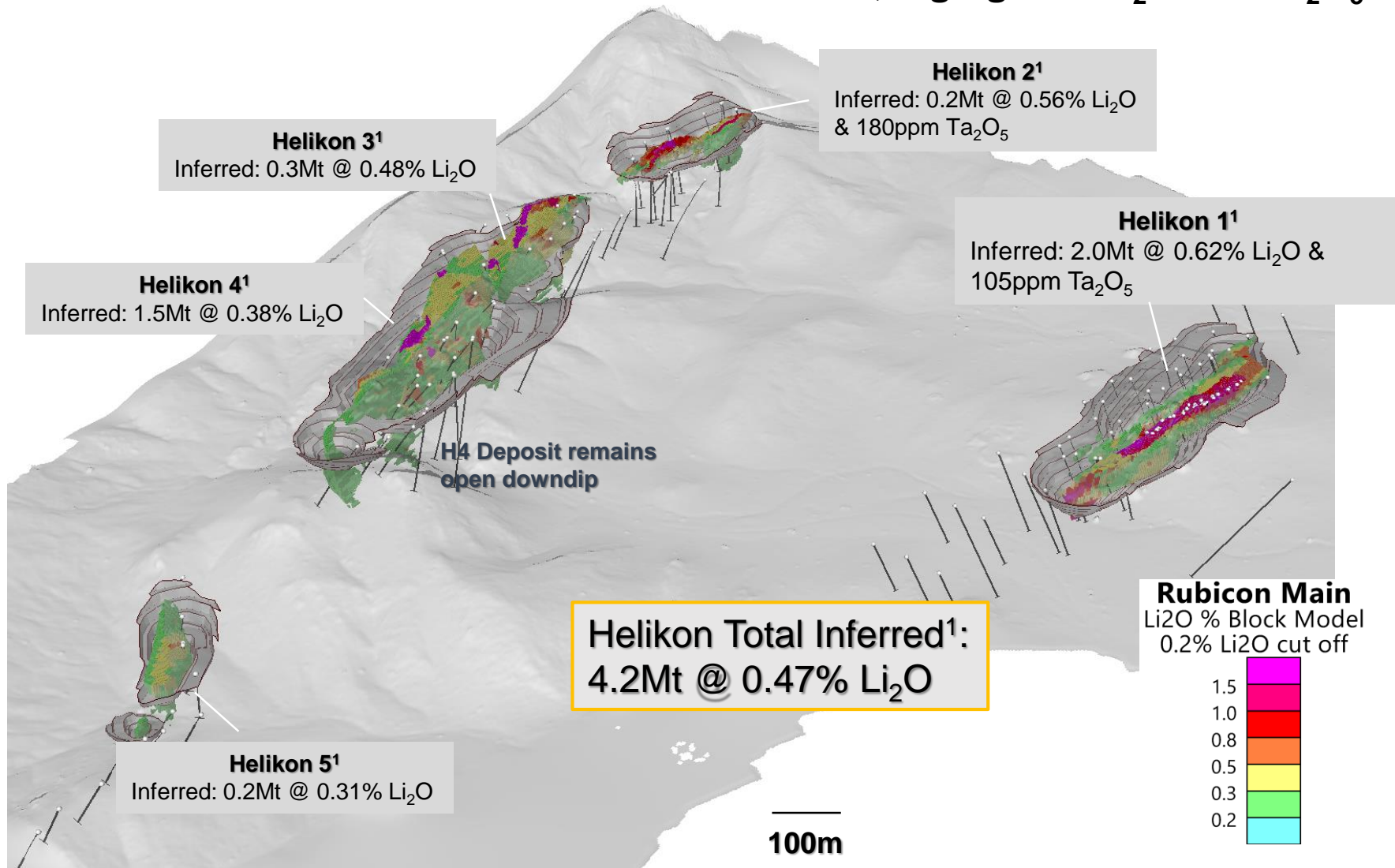
¹ Reported at 0.2% Li₂O cutoff. The JORC Code 2012 compliant MRE for the Rubicon and Helikon MRE's can be found on Lepidico's website (www.lepidico.com)

50m

Helikon 1 Dip Sections

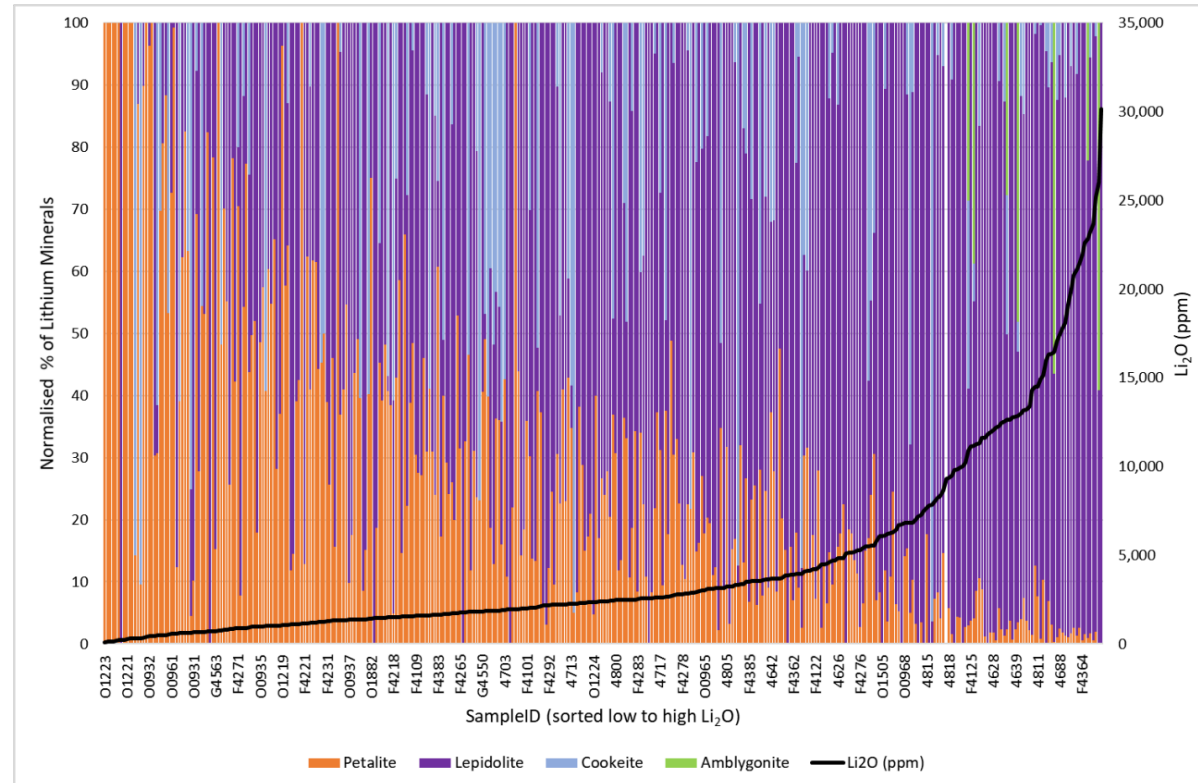
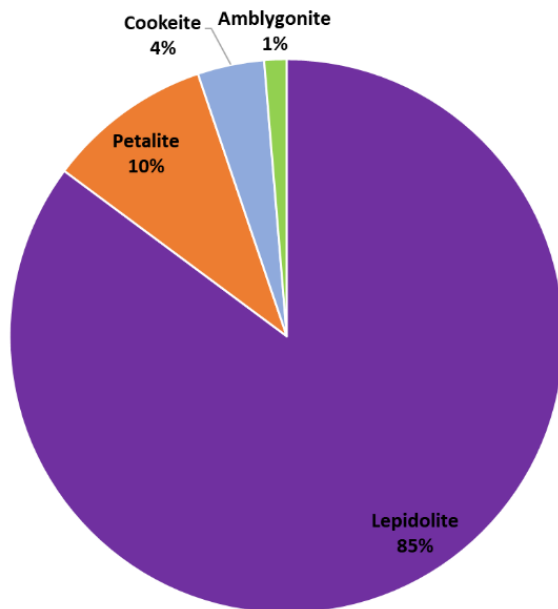


Helikon 1 - 5 Mineral Resource Estimates – discrete, high grade Li_2O and Ta_2O_5



Helikon Mineralogy - XRD

- 360 samples drawn from 11 drillholes, and from each of the H1 – H5 deposits
- Assay validated XRD analyses completed
- Lepidolite occurs as the main Li bearing mineral, petalite, cookeite with traces of spodumene
- Petalite typically occurs as isolated high grade lenses at FW and HW contacts to lepidolite mineralisation



- Gangue minerals comprise quartz, albite, microcline, apatite and beryl
- High lepidolite concentrations generally correspond to high lithia content
- Samples containing $>0.2\%$ Li_2O show 85% lepidolite, 10% petalite, 4% cookeite

JORC 2012 Mineral Resource Estimate Summary

	Deposit	Resource Category	Cut-off (%Li ₂ O)	Tonnes (thousands)	Li ₂ O (%)	Ta ₂ O ₅ (ppm)
Rubicon	Rubicon Main	Indicated	0.20	3,006.9	0.63	70
	Rubicon Main	Inferred	0.20	1,600.9	0.58	67
Helikon	Helikon 1	Inferred	0.20	2,030.0	0.62	105
	Helikon 2	Inferred	0.20	215.6	0.56	180
	Helikon 3	Inferred	0.20	294.7	0.48	75
	Helikon 4	Inferred	0.20	1,510.1	0.38	47
	Helikon 5	Inferred	0.20	179.2	0.31	44
TOTAL	Rubicon + Helikon	Indicated	0.20	3,006.9	0.63	70
	Rubicon + Helikon	Inferred	0.20	5,830.4	0.53	53

In situ

		Resource Category	Tonnes (thousands)	Li ₂ O (%)	Ta ₂ O ₅ (ppm)
Rubicon	Rubicon Slimes	Indicated	62.2	0.97	82
	Rubicon Slimes	Inferred	7.2	0.80	85

Slimes

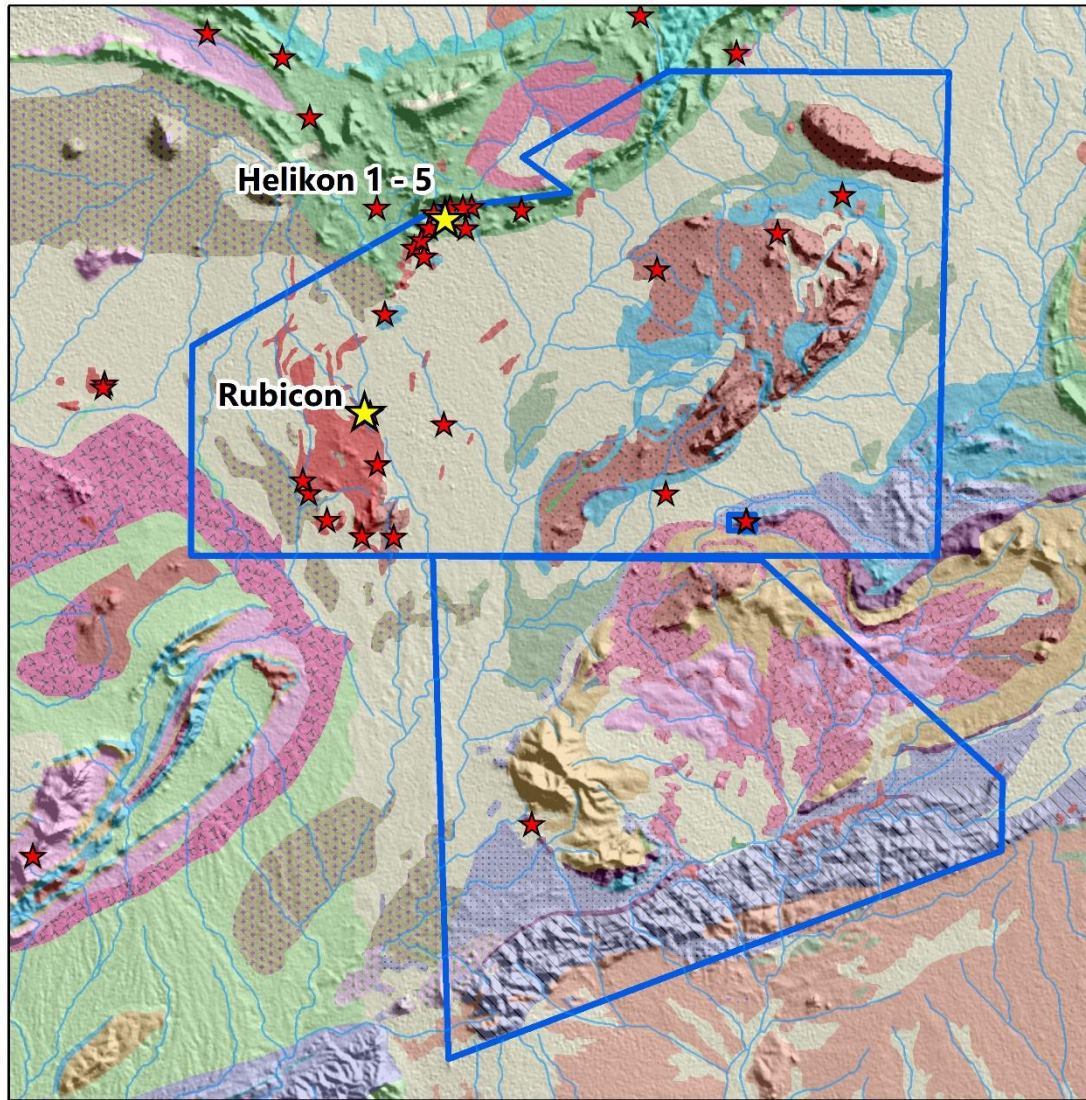
The Mineral Resource is stated as at 1 October 2018.

The Mineral Resource is depleted by surface and underground excavations where available.

All tabulated data has been rounded and as a result minor computational errors may occur.

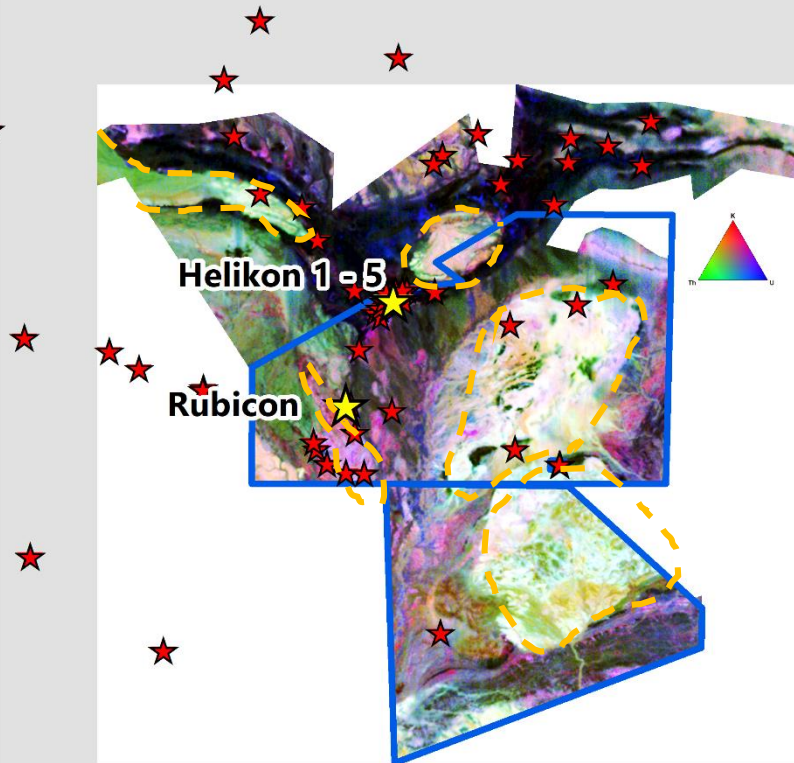
Mineral Resources which are not Mineral Reserves have no demonstrated economic viability.

Target Generation/Grass roots Exploration



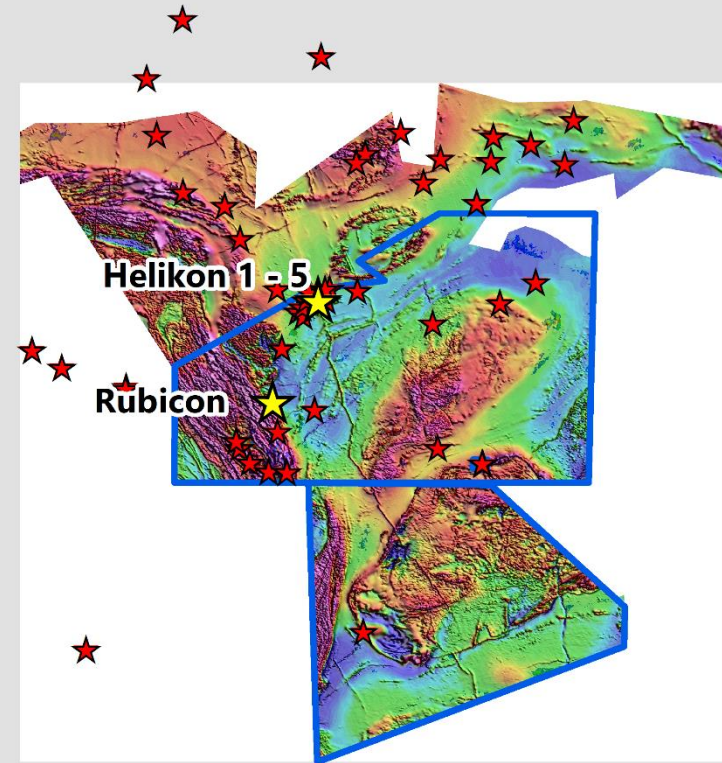
- Area has numerous LCT pegmatites occurrences and workings, however significant cover in central parts
- High resolution (50m line spacing) magnetic and radiometric survey completed:
 - Magnetics to define structures (**transport/trap**)
 - Radiometrics to define **source** – granites
- Structural interpretation completed defining a structural corridor – >25 follow up targets generated
- Field validation has defined >30 pegmatites to date including several mineralized and with LCT affinities
- Soil Sampling initiated following soil orientation program

Radiometrics



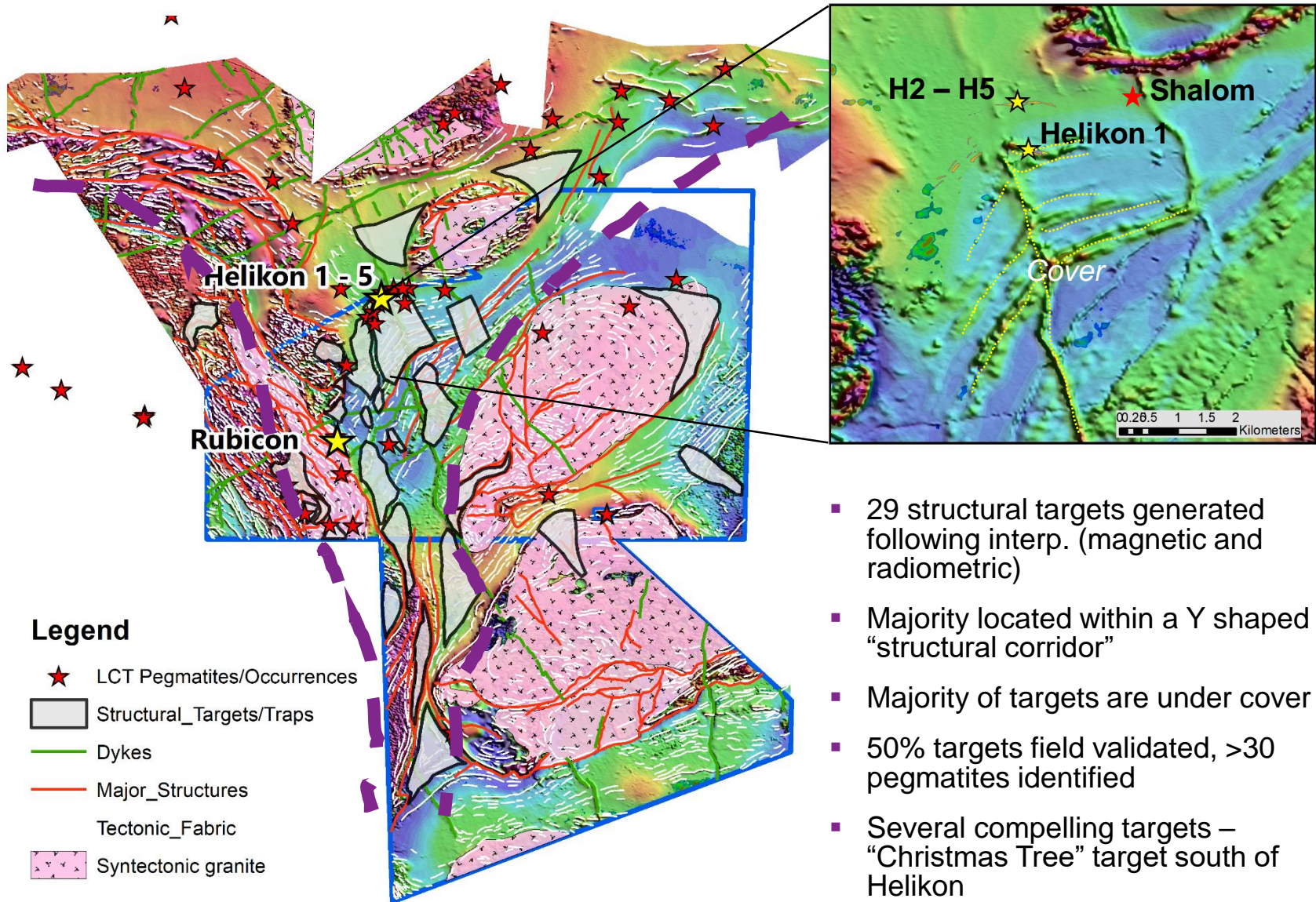
**Source – Pan African 500Ma
syn tectonic granites**

Magnetics

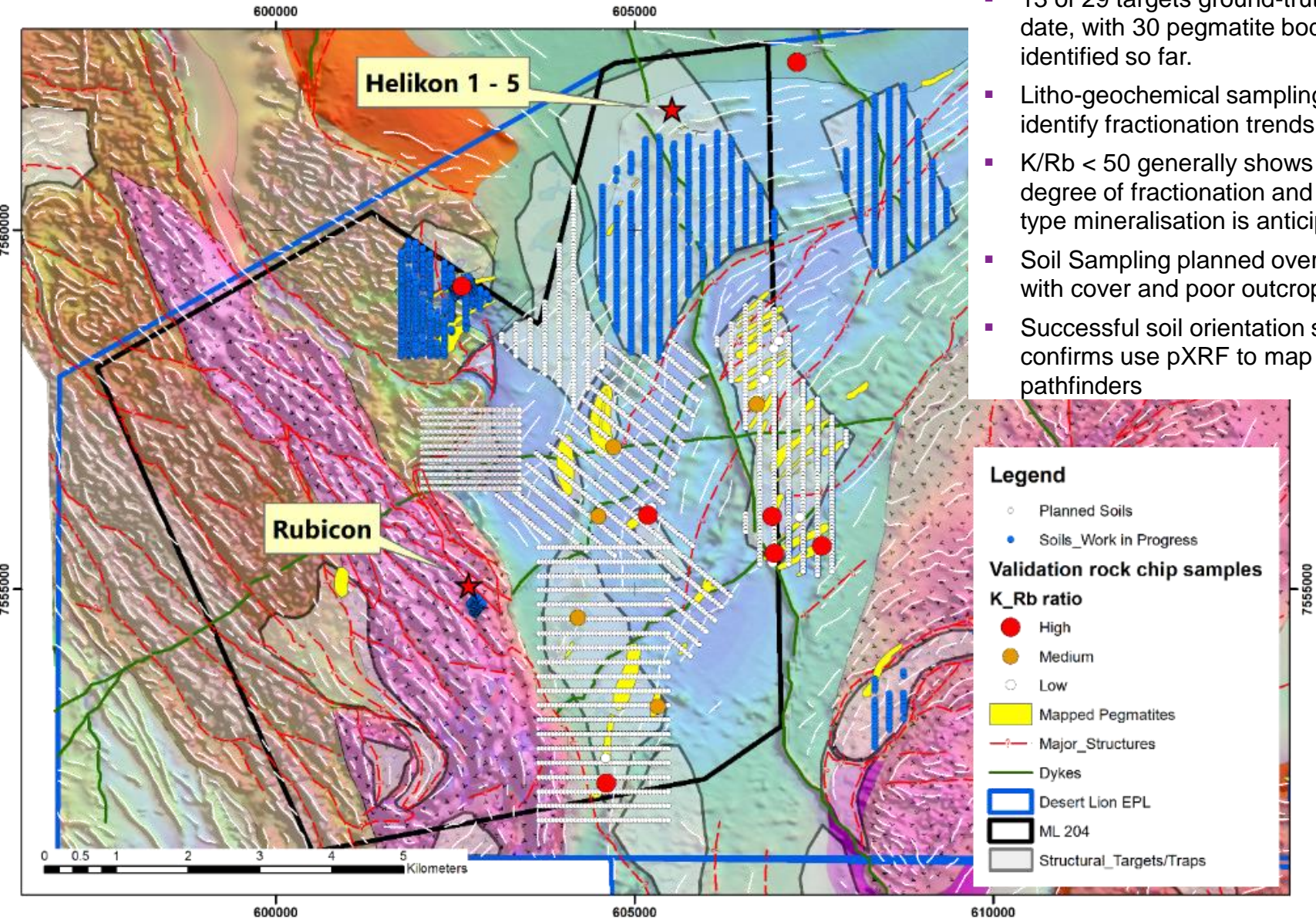


**Transport - Trap – Structural
history and “plumbing”**

Structural Interpretation & Targeting



Ground validation mapping/Soil Sampling



- 13 of 29 targets ground-truthed to date, with 30 pegmatite bodies identified so far.
- Litho-geochemical sampling to identify fractionation trends – K/Rb
- $K/Rb < 50$ generally shows high degree of fractionation and LCT type mineralisation is anticipated
- Soil Sampling planned over targets with cover and poor outcrop
- Successful soil orientation surveys confirms use pXRF to map pathfinders

Current and planned activities at the KLP



- **Current 4,700m core infill drill program to upgrade confidence in the Rubicon and Helikon 1 MRE, due December Q 2019.**
- **20t bulk metallurgical sample in Perth awaiting Pilot Plant testing.**
- **Variability samples undergoing testwork to optimize the mine concentrator design.**
- **Mine design work has commenced, to be finalized following completion of the MRE and Maiden Ore Reserve estimate in March Q 2020.**
- **Full Feasibility Study due mid-CY2020 focusing on development of an integrated mine – concentrator.**
- **Resumption of regional exploration program in December Q following completion of MRE drilling.**



Thank you!

Any Questions?