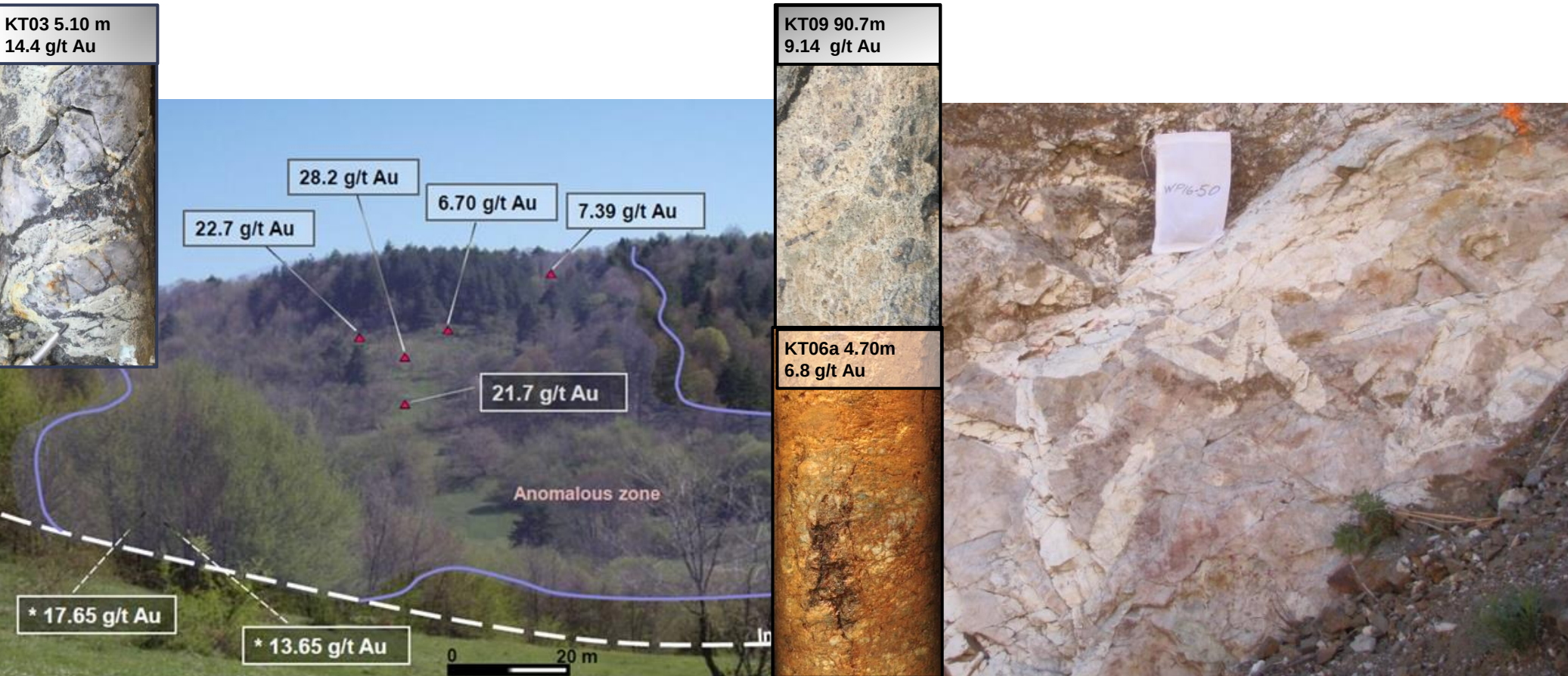




Zenith Minerals Limited

ABN 96 119 397 938

Gold and Lithium - October 2016



*Kavaklitepe Gold Project - View of Kuzey Zone, Gold Mineralised Drill Core
(annotated with depth of sample & gold grade)*

*Spodumene in lithium pegmatite –
San Domingo Project USA*



Disclaimer

Forward looking statements

Some statements in this presentation regarding estimates or future events are forward looking statements. They involve risk and uncertainties that could cause actual results to differ from estimated results. Forward-looking statements include estimates of future production, reserve and mineralised material estimates, capital costs, and other estimates or prediction of future activities. They include statements preceded by words such as "believe", "estimate", "expect", "intend", "will" and similar expressions. Actual results could differ materially depending on such things as political events, labour relations, currency fluctuations and other general economic conditions, market prices for Zenith Minerals Limited products, timing of permits and other government approvals and requirements, change in operating conditions, lower than expected ore grades, unexpected ground and mining conditions, availability and cost of materials and equipment, and risks generally inherent in the ownership and operation of mining properties and investment in foreign countries.

Information presented is a summary

This presentation aims to provide a high level summary of various technical aspects of the Company's projects. For more details on the underlying technical parameters the reader is referred to the ASX Reports on the Zenith Minerals Limited's website: www.zenithminerals.com.au

JORC competent persons statements

The information in this Report that relates to in-situ Mineral Resources at the Develin Creek project is based on information compiled by Ms Fleur Muller an employee of Geostat Services Pty Ltd. Ms Muller takes overall responsibility for the Report. She is a Member of the AusIMM and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity she is undertaking, to qualify as a Competent Person in terms of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012 Edition)'. Ms Muller consents to the inclusion in the report of the matters based on her information in the form and context in which it appears.

The information in this report that relates to Zenith Exploration Results is based on information compiled by Mr Michael Clifford, who is a Member of the Australian Institute of Geoscientists and an employee of Zenith. Mr Clifford has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which 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 Clifford consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



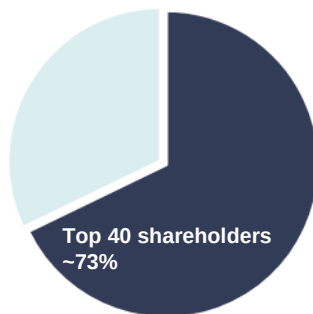
Corporate Structure

Capital Structure – ASX: ZNC

Share Price (at Oct 2016)	\$0.13
Shares on Issue ZNC fully paid ordinary	172.9m
Market Capitalisation	\$22.5m
Listed Options ZNCO (\$0.10 Exercise price)	22.1m
Cash (Sept 2016)	\$1.0m

Major Shareholders

City Corp. Nom.	6.60%
HSBC Custody. Nom.	6.25%
Granich	6.12%
Miquilini	4.53%
Abingdon	4.50%
GDR PL	4.27%



*Tight supportive register
Directors ~11%
Top 40 mostly ex-ASX:GIR holders*

Strong Board - experienced, technically & commercially successful

Mike Joyce – Non-Executive Chairman

Geologist, substantial prior experience at Aberfoyle Resources Ltd (1980-98) then MD at Giralia Resources NL (1998-2011 - \$828m takeover). Chairman of Gascoyne Resources Ltd.

Mick Clifford - Managing Director

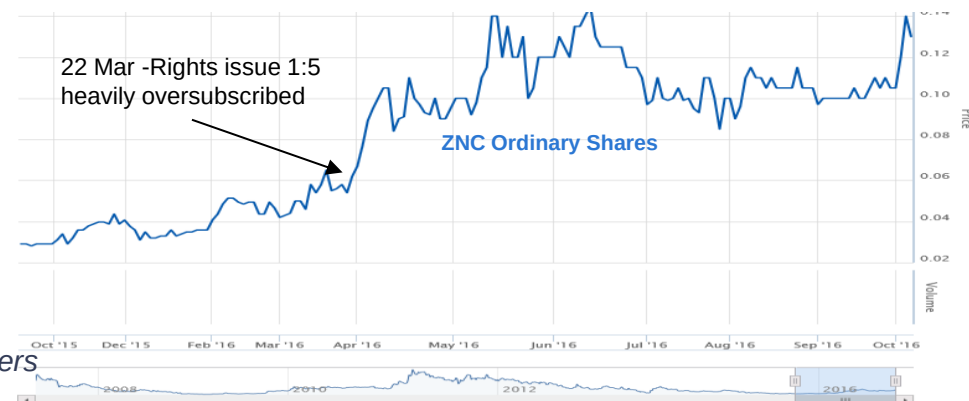
Geologist, >26 years experience, Billiton Australia, Acacia Resources & AngloGold Ashanti. MD of PacMag Metals Ltd (2005 – 2010 - \$50m takeover).

Stan Macdonald - Non-Executive Director

Industry veteran, founded numerous ASX listed companies including Giralia Resources NL, Director of Gascoyne Resources Ltd.

Julian Goldsworthy - Non-Executive Director

Geologist, currently Geology Manager at Gascoyne Resources Ltd. Substantial experience with Newcrest Mining, Newmont Australia (1986-2007) and Giralia Resources NL (2007- 2011).





Key Projects Summary

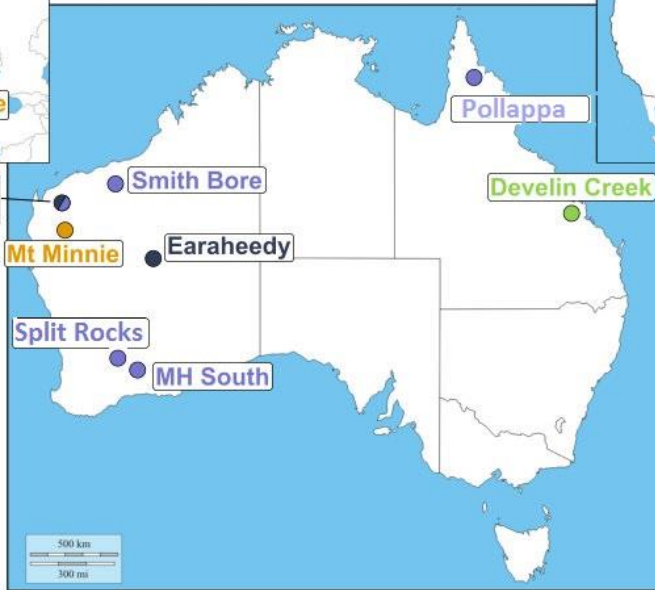
- rapidly evolving -

TURKEY



Kavaklitepe

AUSTRALIA



USA/MEXICO



San Domingo

Gold

- **Kavaklitepe** (Turkey) – New discovery. ZNC free carried, Drilling in progress: 16m @ 4.7g/t Au, 9m @ 5.2g/t Au

Lithium

- **San Domingo** (Arizona -100%) – New 9km lithium pegmatite field. Spodumene bearing pegmatites. Rocks; 5m @ 1.97% Li₂O
- **Split Rocks** (WA-100%) – New 500sq km position in emerging Forrestania lithium belt (KDR, WSA recent discoveries)
- Generative program in Australia and Americas

Copper/Zinc

- **Develin Creek** (QLD -100%) - JORC massive sulphide resource 2.57Mt @ 1.76% Cu, 2.01% Zn, 0.24g/t Au & 9.6g/t Ag (Feb '15). 50km prospective strike.

Zenith has a clear strategy for adding shareholder value

1. Use our proven generative skills, move fast to acquire projects, Au, Li focus;
2. Smart, cost-effective exploration to progress projects and add value;
3. Use experience and corporate skills to deliver value-add to shareholders through development or monetization.



Kavaklitepe

Location:
Commodity:
Stage:

Turkey
Gold
Drilling

**New Gold
Discovery in
Turkey**

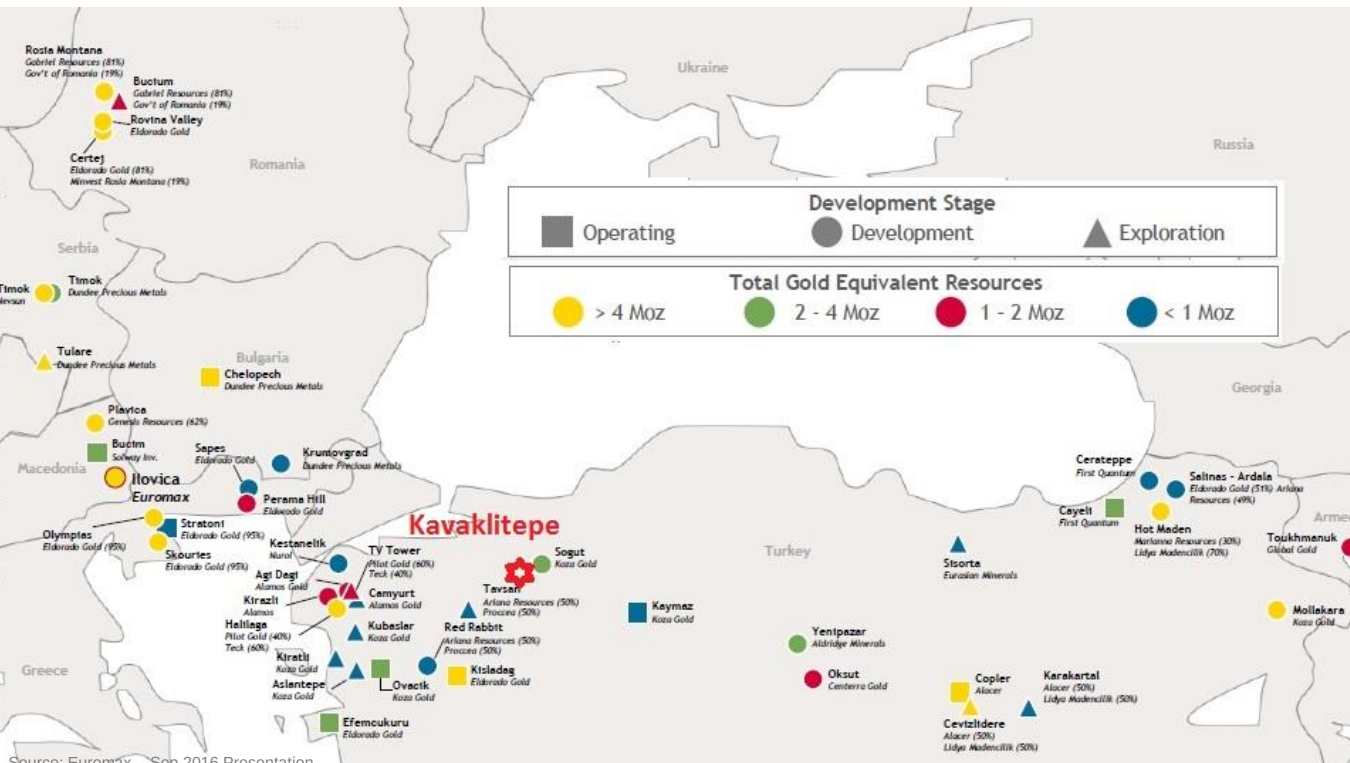


**Joint Venture with Turkish affiliate of
Teck earning 70%**

**Zenith free carried for first US\$700k
of expenditure and 1500m drilling**

**~30km south west of major new
3Moz gold discovery at Sogut (Koza)**

**Maiden drilling program in progress
with man-portable rigs**
(ASX releases 16 June, 20 July, 24 August & 5
October 2016)



Source: Euromax - Sep 2016 Presentation

**Turkey-Europe's
largest gold
producer;**
Eldorado, Koza, Alacer,
First Quantum

**Highly endowed
Tethyan
Metallogenic Belt**

**Ranked 8th by
Frazer Institute
as investment
destination**

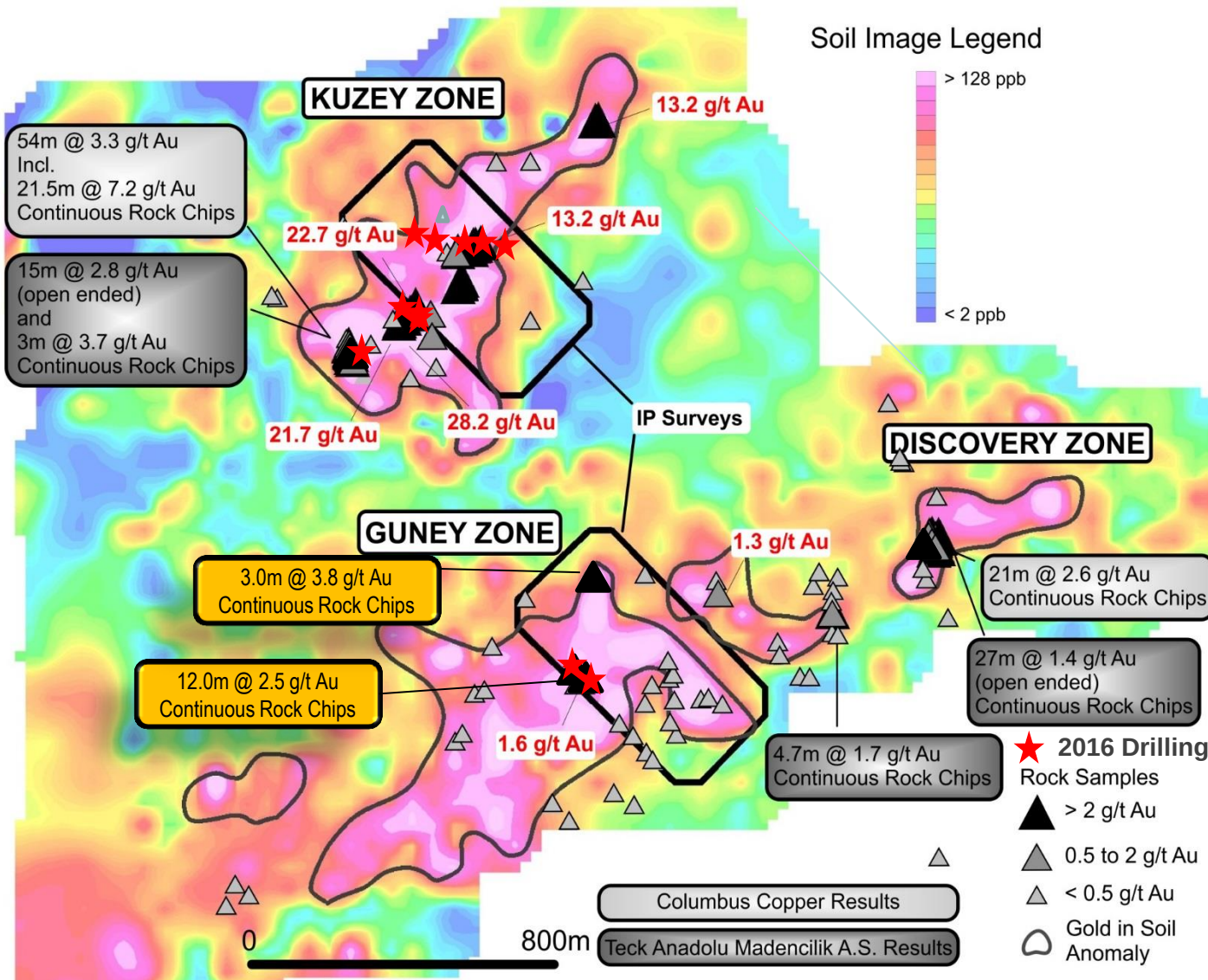




Kavaklitepe

Location:
Commodity:
Stage:

Turkey
Gold
Drilling



3 strong gold soil anomalies; Kuzey Zone

900m strike length

Continuous rock chips;

- 54m @ 3.3g/t Au incl.
- 21.5m @ 7.2g/t Au

Guney Zone

1000m strike length

New continuous rock chips;

- 12.0m @ 2.5g/t Au
- 3.0m @ 3.8g/t Au

Discovery Zone

400m strike length

continuous rock chips;

- 27m @ 1.4g/t Au

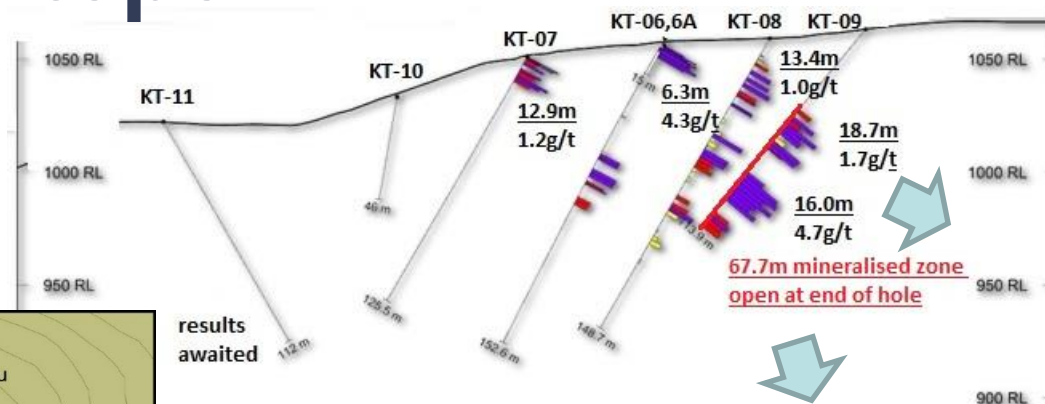
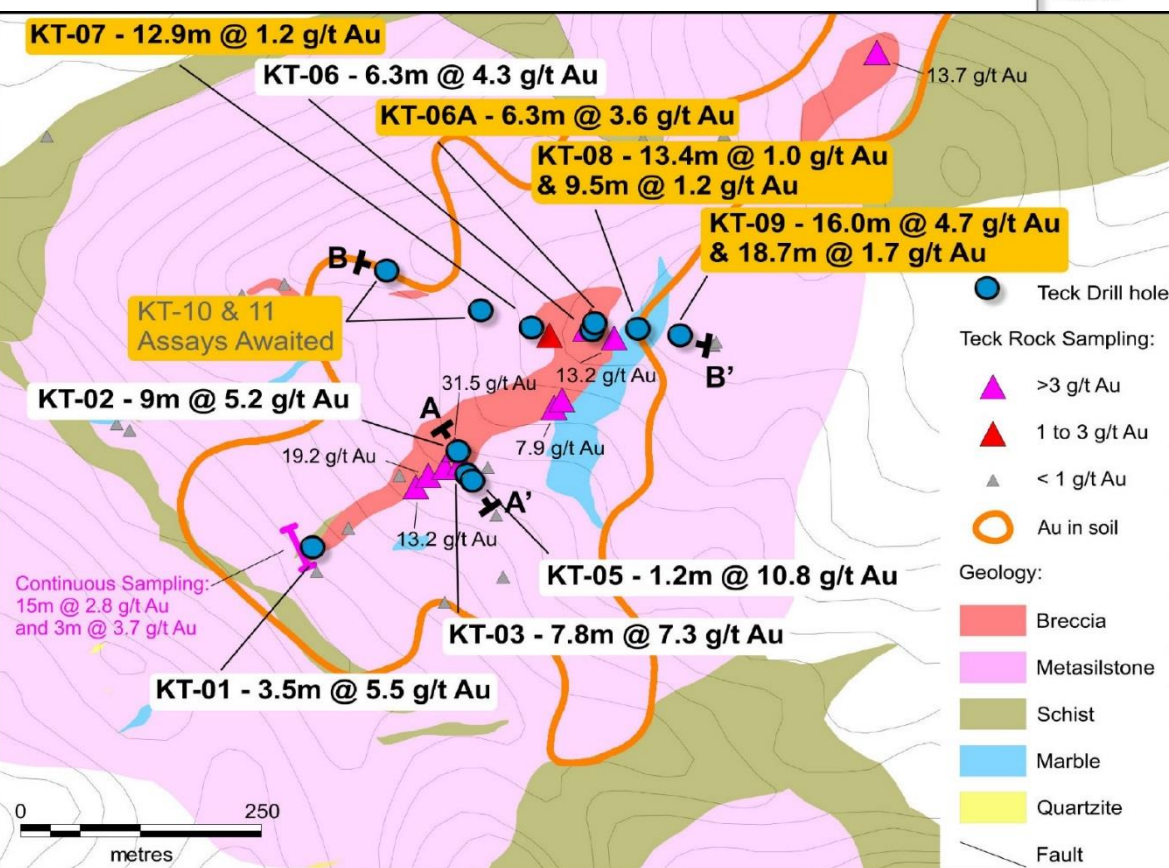
Drilling trial in progress; 12 wide spaced shallow holes completed covering SW end of Kuzey target, now drilling first holes at Guney Zone.



Kavaklitepe

Location: Turkey
Commodity: Gold
Stage: Drilling

Kuzey Zone – Very Positive Initial Drill Results.
Latest assays from holes KT-08 and 09 returned
60 to 70 metres thick unoxidised mineralised zones - open



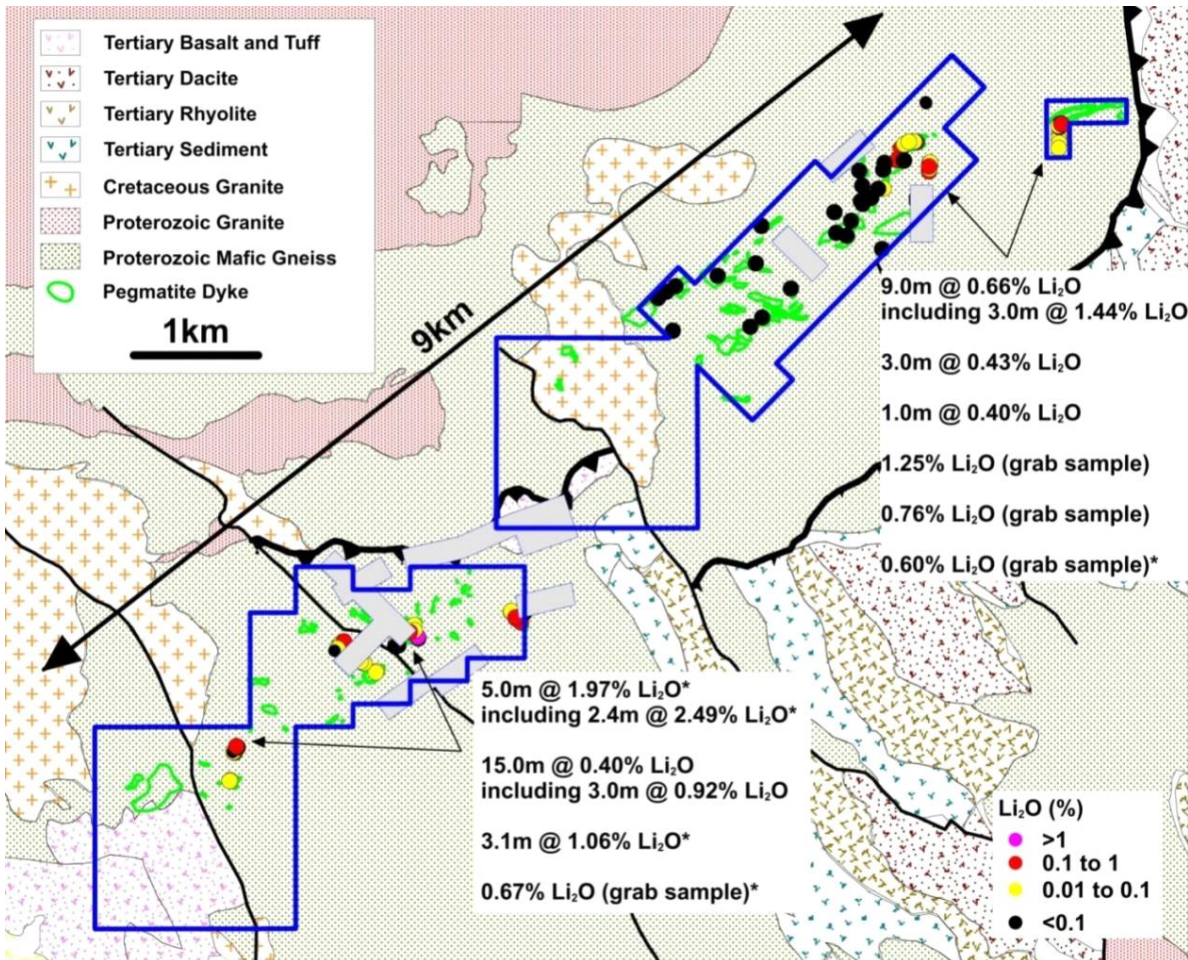
Holes KT-01 to KT-05
Flat lying near surface oxide mineralisation;
KT-02 9.0m @ 5.2 g/t Au from surface;
KT-03 7.8m @ 7.3 g/t Au from 3.3m
KT-05 1.2m @ 10.8g/t Au poor core recovery

Holes KT-06 to KT-11
Extended the oxide zone to over 400m strike,
plus first strong unoxidised gold intersections;
KT-06 6.3m @ 4.3g/t Au from surface
KT-07 12.9m @ 1.2 g/t Au from surface
KT-08 13.4m @ 1.0g/t Au from 16.1m
KT-09 18.7m @ 1.7g/t Au from 50.2m
and 16.0m @ 4.7g/t Au from 82.1m



San Domingo Lithium

Ownership: 100%
Location: USA
Commodity: Lithium
Stage: Prospects



- **New 100% owned project, Arizona USA**
(ASX release 7 June 2016)
- **9km by 1.5km field with numerous lithium bearing pegmatites;**
- **Initial Zenith sampling 5m @ 1.97% Li₂O incl. 2.4m @ 2.49% Li₂O from spodumene rich pegmatites;**
- **Lithium as spodumene and amblygonite concentrates & tantalum produced from district (1947 – 1952);**
- **Very limited drilling; in 1952- anecdotal info “..considerable thicknesses of spodumene - bearing pegmatite..” & in 1980-82 mostly for Ta and Nb focussed outside Zenith’s claims;**
- **Finalise staking, follow-up mapping & sampling prior to drill testing.**



San Domingo Lithium

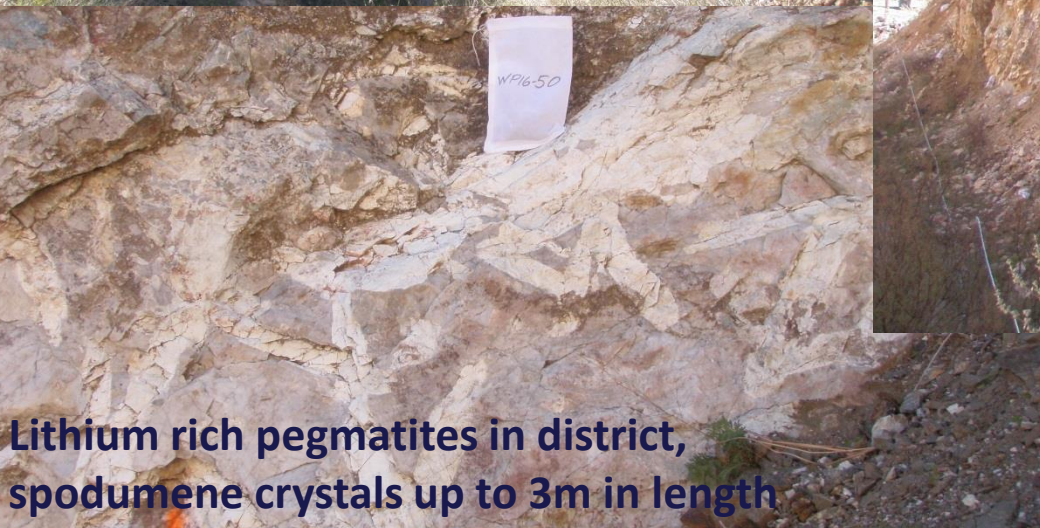
Ownership:	100%
Location:	USA
Commodity:	Lithium
Stage:	Prospects



**Additional surface mapping & sampling
in progress prior to drilling**



Pegmatite dykes up to 60m in width and 600m in length



**Lithium rich pegmatites in district,
spodumene crystals up to 3m in length**

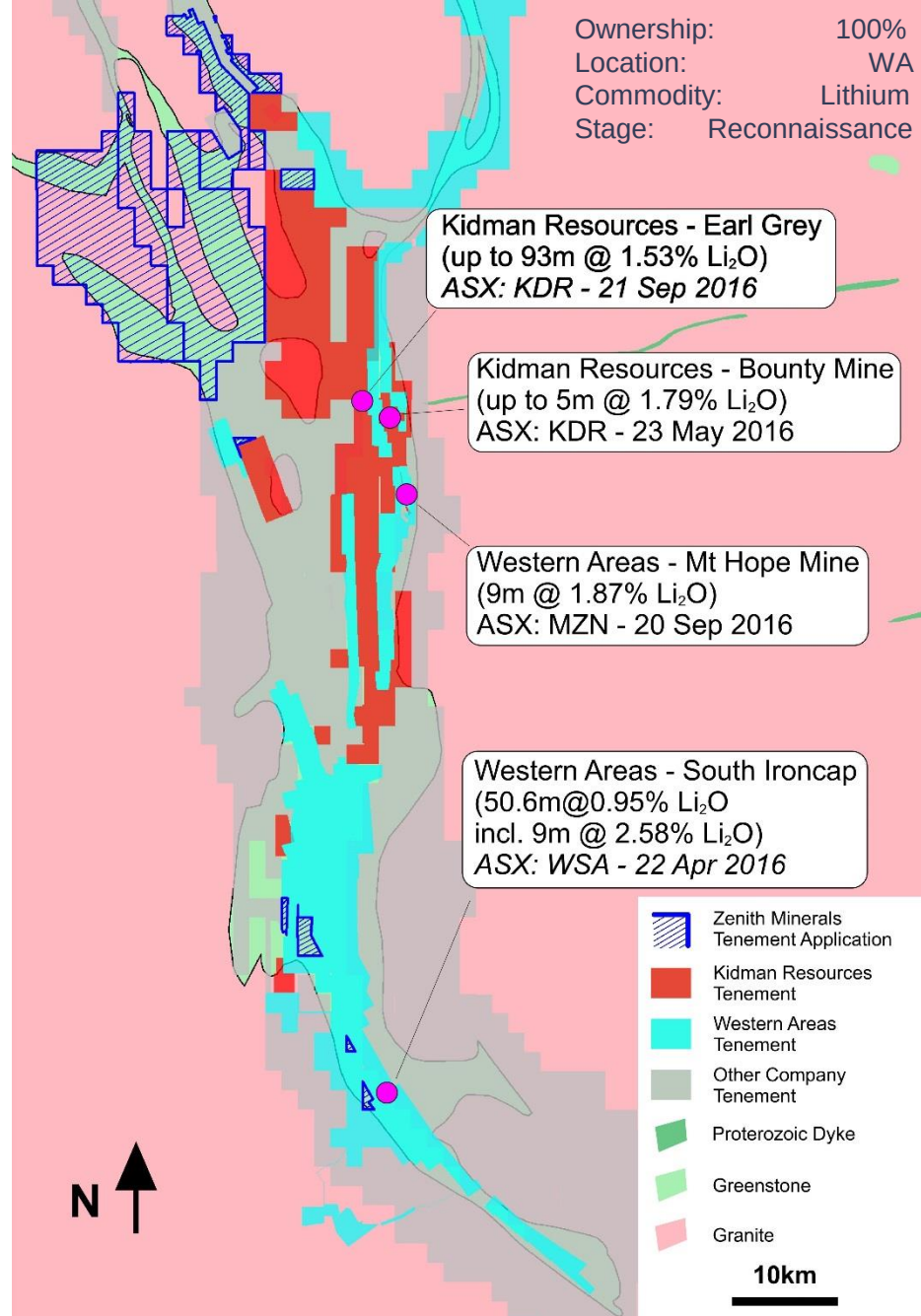


Numerous historic workings



Split Rocks

- **New Exploration licence applications over ~500 km²;**
(ASX release 25 July 2016)
- **Zenith is now one of the major landholders in emerging new lithium province - Forrestania Greenstone Belt - KDR and WSA lithium discoveries;**
- **Many pegmatites noted in historic (Au, Ni) exploration reports within new Zenith applications - potential hosts to lithium mineralisation;**
- **Initial surface mapping and surface sampling underway;**
- **Gold targets also noted.**

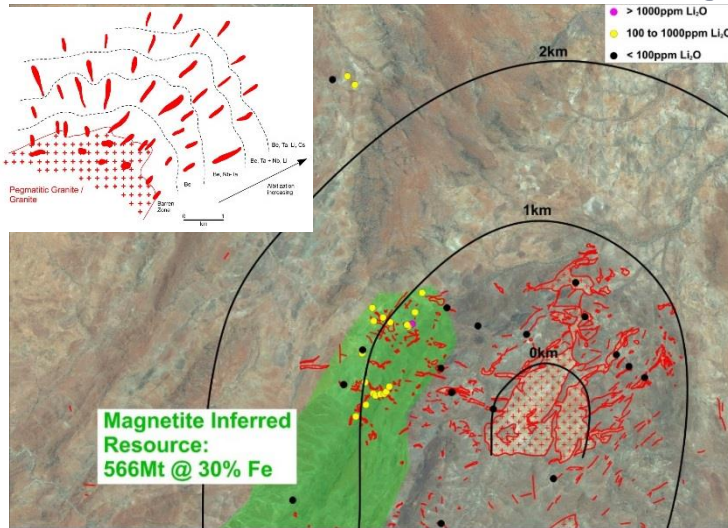




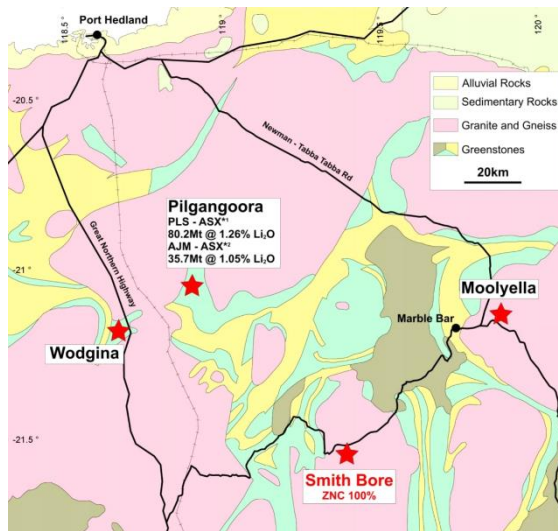
Lithium Project Generation

Very active project generation program

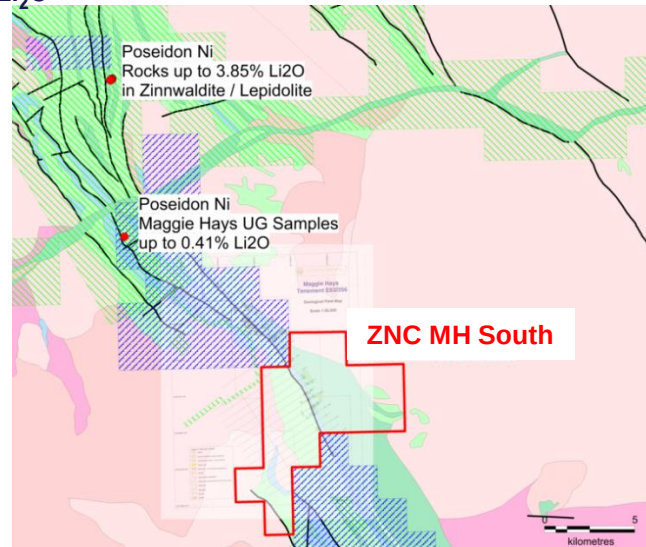
- Technically driven;
- Targeting lithium brines, pegmatites & clays;
- USA/ Mexico team - field evaluations and sampling in progress, further acquisitions likely;
- Australian team - multiple projects acquired by pegging (Split Rocks, MH South, Smith Bore, Pollappa);



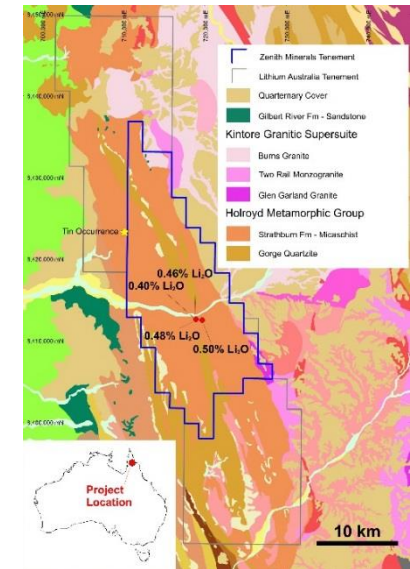
Mount Alexander(100%)- Rocks to 4.05% Li₂O



Smith Bore ELA (100%) –Rocks to 0.63% Li₂O



MH South ELA (100%)



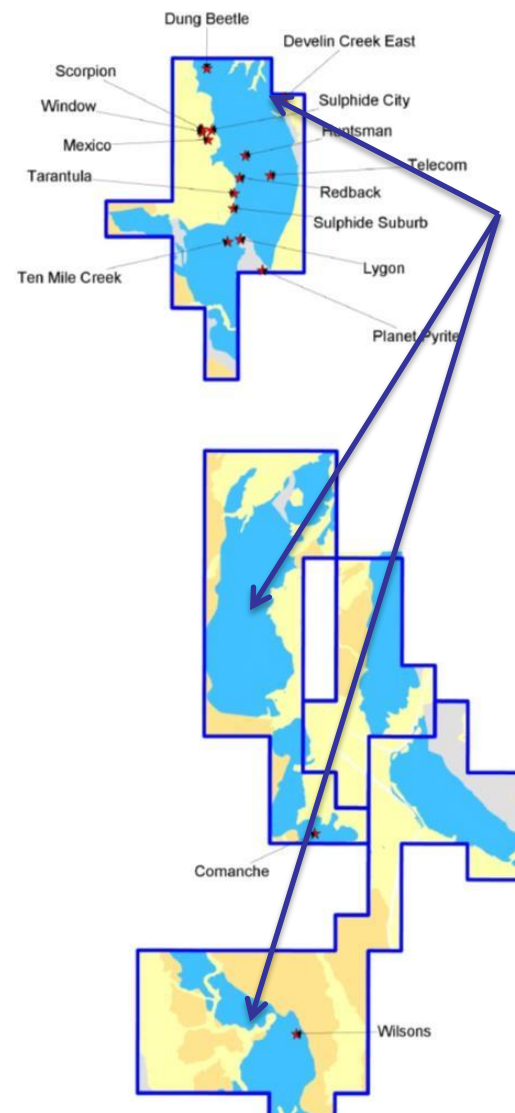
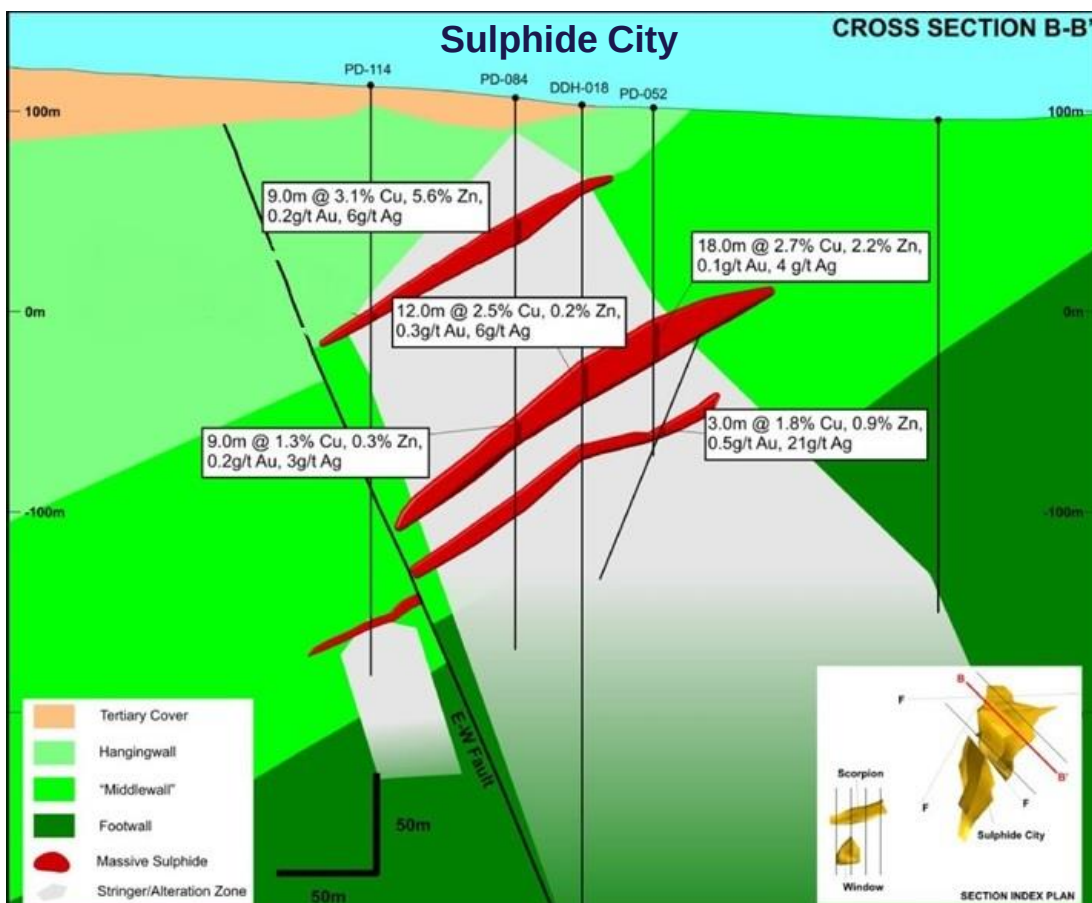
Pollappa EPMA (100%) –Rocks to 0.5% Li₂O



Develin Creek

Ownership: 100%
Location: Queensland
Commodity: Cu-Zn-Ag-Au
Stage: Resource

- VHMS - Massive sulphides. Now 100% ZNC (ASX release 13 Sept 2016). Inferred Resource; 2.57Mt @ 1.76%Cu, 2.01% Zn, 0.24g/t Au, 9.6g/t Ag.
- Zenith RC drilling grades 3 to 7 times higher compared to nearby historic percussion holes. Twin holes planned to test potential grade undercall.



Target sequence over 50km strike





News Flow, Catalysts

Kavaklitepe

- Assays awaited for recently completed holes KT-11 to 16.
- Another ~10 holes to be drilled this year, results provided progressively.

Split Rocks

- Sampling, mapping underway in exciting new Lithium district. Outcrop is poor, re-sample old drill spoil, trial soil geochemistry/shallow drilling.

USA/Mexico Lithium

- San Domingo currently permitting for 2017 drilling
- Acquisitions likely, claim staking Mexico/USA on lithium brine targets

Develin Creek

- Drilling 2017 twin holes and new EM/geochemical targets

Retention status to
preserve legacy
bulk commodity
projects at low
ongoing cost

Earaheedy – Manganese

- Inferred Mineral Resource -Red Lake 1.1Mt @ 20.8% Mn (Sep 2014)
- Inferred Mineral Resource - Lockeridge 2.6Mt @ 20.6% Mn (Apr 2015)

Mt Alexander – Iron

- Inferred Mineral Resource - Mt Alexander 565.7Mt @ 30.0%Fe (Oct 2015)
- Inferred Mineral Resource - Mt Alexander West 25.9Mt @ 22.7%Fe (Jun 2015)



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ZNC



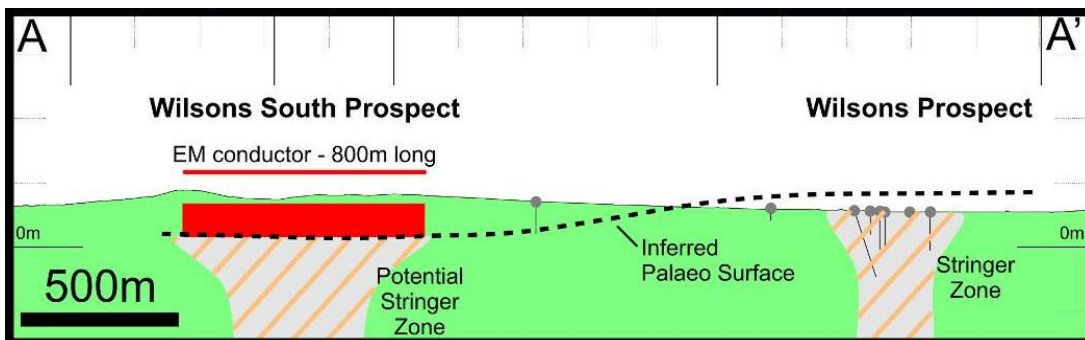
Supplementary Slides



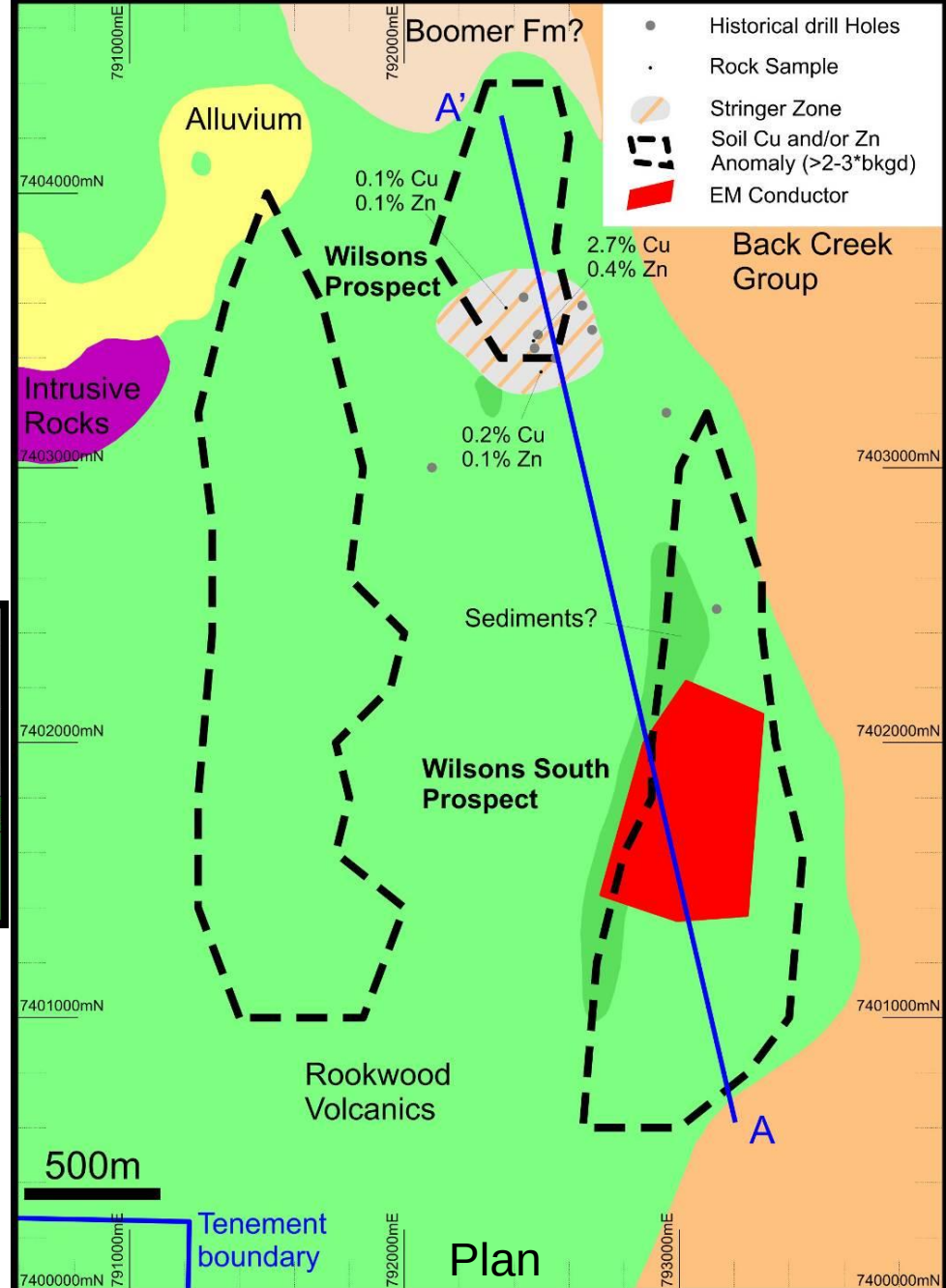


Develin Creek Wilsons South Drill Target

Coincident EM and Geochemical Anomaly



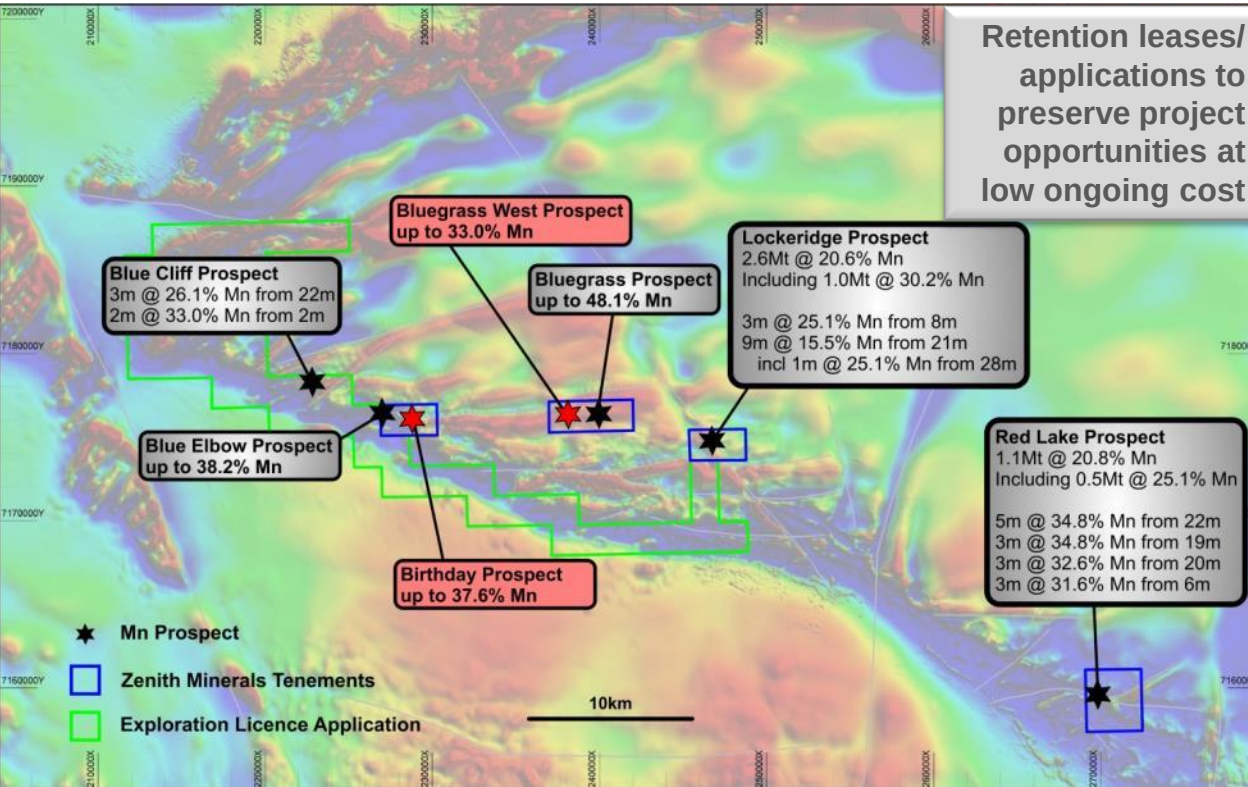
Cross Section





Earaheedy Manganese

Ownership: 100%
Location: WA
Commodity: Manganese
Stage: Resources



Zenith completed first drilling for Mn in Earaheedy

- Shallow dipping oxide; and
- Carbonate (Kalahari Basin style) mineralisation

Manganese both structurally controlled and stratiform.

Inferred Mineral Resources:

- Red Lake 1.1Mt @ 20.8% Mn (Sep 2014)
- Lockeridge 2.6Mt @ 20.6% Mn (Apr 2015)

Drill intersections include:

- 3m @ 41.0% Mn within 5m @ 34.8% Mn from 22m
- 1m @ 40.2% Mn within 3m @ 30.7% Mn from 3m
- 2m @ 38.4% Mn within 3m @ 32.6% Mn from 20m
- 1m @ 42.3% Mn within 3m @ 34.8% Mn from 19m

New discoveries:

- Bluegrass, Bluegrass West, Blue Elbow & Birthday

Focused tenement strategy



Mt Alexander Magnetite

Ownership: 100%
 Location: WA
 Commodity: Iron Ore
 Stage: Resources



Retention leases/
 applications to
 preserve project
 opportunities at
 low ongoing cost

Well located close to – sealed roads, gas pipelines, only 120km from coast near Onslow (Mitsui, Chevron ports)

Base case in 2011 Scoping study - slurry pipeline, tranship by barge to vessel offshore

Only 80km to API JV (Baosteel -AMCI) West Pilbara proposed railway to Anketell Port – third party access.

Advantages over other WA magnetite deposits:

- location close to coast and infrastructure
- coarser grained = better beneficiation +40 micron grind size

Inferred Mineral Resources:

- Mt Alexander 565.7Mt @ 30.0%Fe (Oct 2015)
- Mt Alexander West 25.9Mt @ 22.7%Fe (Jun 2015)

Additional very large exploration target

Key tenure retained

