Top End Minerals Limited (ASX:TND)

Unlocking the value from one of Asia's largest underdeveloped multi-commodity assets

Investor Presentation May/June 2017

Top End Minerals (ASX:TND)

VINO

Myanmar – the New Frontier



#### **Disclaimer - Forward Looking Statement**

This presentation contains "forward looking statements". Such "forward looking statements" may include without limitation (1) estimates of future earnings, the sensitivity of such earnings to diamond values and foreign exchange rate movements (2) estimates of future diamond production (3) estimates of future cash costs (4) estimates of future cash flow, the sensitivity of such flows to diamond values and foreign exchange rate movements (5) statements regarding, future debt payments (6) estimates of future capital expenditure (7) estimates of reserves, resources and statements regarding future exploration results.

Where the Company expresses or implies an expectation or belief as to future events or results such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, "forward looking statements" are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such "forward looking statements". Such risks include but are not limited to diamond values, currency fluctuations, increased production costs and variances in grades or recovery rates from those assumed in mining plans, as well as political and operational risks in the countries and states in which the Company operates or sells product and governmental regulation and judicial outcomes.

The Company does not undertake any obligation to release publicly any revisions to any "forward looking statement" to reflect events or circumstances after the date of this presentation or to reflect the occurrence of unanticipated events, expect as may be required under applicable securities laws. "Probably the best investment opportunity in the world right now is Myanmar... It's like when China opened up in 1978. There were unbelievable opportunities going forward. The same is true in Myanmar now in my view."

> Jim Rogers – Investor, financial commentator and author – oilvoice.com & Bloomberg



# Proposed acquisition of Bawdwin Ag-Pb-Zn Mine

Unrivalled listed-company exposure to a large underdeveloped multi-commodity deposit, reputedly one of the Ise only richest mines in the British Empire before WW2

The mining 'reserve' in 1938 was reported as 10.8 Mt at 14% Zn, 23% Pb, 1% Cu and 670 g/t Ag, with significant Ni and Co also present<sup>1</sup>

- A historical Inferred and Indicated Mineral Resource of 94.49 Mt at 6.49%Pb, 2.84% Zn, 0.26% Cu and 3.79 oz/t Ag at a 3.5% Pb Eq cut-off grade or 42.4 Mt at 8.6% Pb, 3.6% Zn, 0.3% Cu and 5.17 oz/t Ag at a 5% Pb cut-off grade was reported in 1997<sup>2</sup>
- Located ~160 km from China's border an importer of circa ~USD\$1.3 billion worth of zinc annually
- Opportunity to unlock value through redevelopment of production and extensive exploration
- Supported by credible technical partners CSA Global, MPS Perth and proven local contractors

<sup>1</sup>Khin Zaw, 1990, Mineralogy, ore metal distribution and zonation at Bawdwin Mine, Northern Shan State, Myanmar (Burma); an Ag-rich volcanic-hosted, polymetallic massive sulphide deposit. Geological Society of Australia Abstracts No. 25, Tenth Australian Geological Convention, Hobart, 1990.

<sup>2</sup>Algar, Warries, and Barnes, 1997, Bawdwin Project Database Development, Resource Estimation and Pit Optimisation, Resource Service Group report to Mandalay Mining Company NL. TND cautions that a Competent Person has not done sufficient work to classify this historical estimate as a Mineral Resource in accordance with the JORC Code 2012 Edition. It is uncertain that, following evaluation, it will be possible to report a Mineral Resource in accordance with the JORC Code 2012 Edition.









#### Transaction overview

Exclusive option for an 85% interest in the Bawdwin Zn-Pb-Ag-Cu Mine Lease in Myanmar. Exercise of the option is subject to approval by the Ministry of Natural Resources and Environmental Conservation and Myanmar Investment Commission. In the event that the Option is exercised, TND will reimburse WMM past expenditure on Bawdwin through payment of consideration of US\$20M.

Six month option agreement in place with Win Myint Mo Industries Co (WMM) for US\$1.5 million as an up-front non-refundable deposit, and an ability to extend the option period for a further 6 months by payment of a further US\$1.5 million non-refundable deposit.



Bawdwin Mine Open Pit



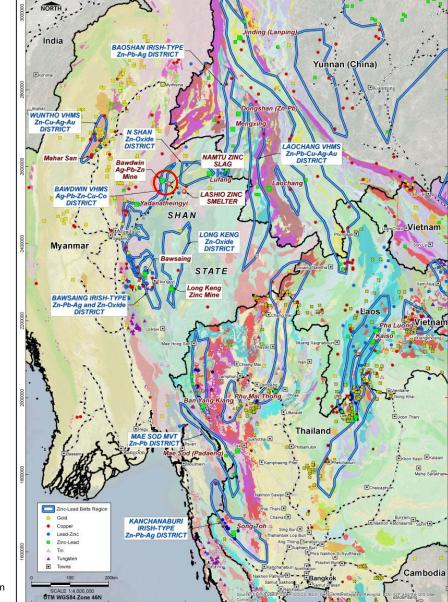
#### Bawdwin Ag-Pb-Zn Mine

Bawdwin is potentially one of the largest undeveloped high-grade Ag-Pb-Zn-Cu deposits globally

No modern exploration or mining has been conducted – opportunity for TND to unlock considerable value

Huge exploration and development potential – asset value far from realised

~160 km from China on Mandalay to Yunnan highway



100000

1000000

1200000

Location of Bawdwin Mine relative to Zn-Pb belts in Myanmar, Thailand and Yunnan **Source:** CSA Global



### Bawdwin's potential is outstanding

A historical Inferred and Indicated Mineral Resource of 94.49 MT at 6,49%Pb, 2.84% Zn, 0.26% Cu and 3.79oz/t Ag at a 3.5% Pb Eq cut-off grade or 42.4 Mt at 8.6% Pb, 3.6% Zn, 0.3% Cu, and 5.17 oz/t Ag at a 5% Pb cut-off grade was reported in 1997<sup>1</sup>; this represents lower grade halo mineralisation around the mined high-grade lodes

LODE	INDICATED RESOURCES				INFERRED RESOURCES				TOTAL RESOURCES						
	Mt	Pb %	Zn %	Cu %	Ag oz/t	Mt	Pb %	Zn %	Cu %	Ag oz/t	Mt	Pb %	Zn %	Cu %	Ag oz/t
Chinaman	12.98	8.63	4.43	0.24	5.96	7.74	8.59	3.62	0.11	4.58	20.72	8.62	4.13	0.19	5.44
Meingtha	3.34	8.34	2.83	1.22	3.16	2.32	10.2	0.95	0.12	2.06	5.66	9.10	2.06	0.18	2.71
Shan	7.49	9.36	4.18	0.73	6.31	8.49	9.36	2.78	0.17	5.12	15.98	9.36	3.44	0.43	5.68
TOTAL	23.81	8.82	4.13	0.39	8.68	18.55	9.14	2.90	0.14	4.51	42.36	8.59	3.59	0.28	5.17

 Table 1. Historical Mineral Resource estimate based on a 5% Pb block cut-off grade (Algar et al., 1997)

Table 2. Historical Mineral Resource estimate based on a 3.5% Pb Equivalent recovered block cut-off grade (Algar et al.,1997)

LODE	INDICATED RESOURCES				INFERRED RESOURCES				TOTAL RESOURCES						
	Mt	Pb %	Zn %	Cu %	Ag oz/t	Mt	Pb %	Zn %	Cu %	Ag oz/t	Mt	Pb %	Zn %	Cu %	Ag oz/t
Chinaman	27.90	5.79	3.22	0.24	4.12	19.75	5.33	2.68	0.1	3.34	47.65	5.60	3.00	0.18	3.8
Meingtha	6.66	5.93	2.25	0.21	2.49	3.75	7.73	1.17	0.14	2.06	10.41	4.15	1.86	0.18	2.34
Shan	15.68	6.1	2.96	0.63	4.44	20.75	5.18	2.89	0.19	4.00	36.43	8.32	2.92	0.38	4.19
TOTAL	50.24	5.91	3.01	0.36	4.00	44.25	5.46	2.65	0.15	3.54	94.49	6.49	2.84	0.26	3.79

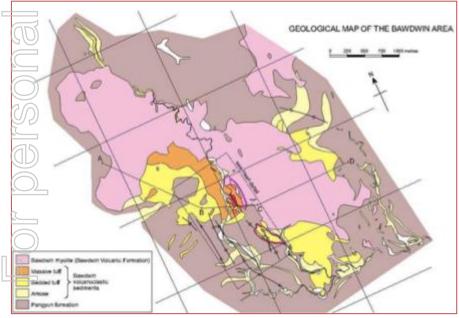
<sup>1</sup>Algar, Warries, and Barnes, 1997, Bawdwin Project Database Development, Resource Estimation and Pit Optimisation, Resource Service Group report to Mandalay Mining Company NL. TND cautions that a Competent Person has not done sufficient work to classify this historical estimate as a Mineral Resource in accordance with the JORC Code 2012 Edition. It is uncertain that, following evaluation, it will be possible to report a Mineral Resource in accordance with the JORC Code 2012 Edition. It is



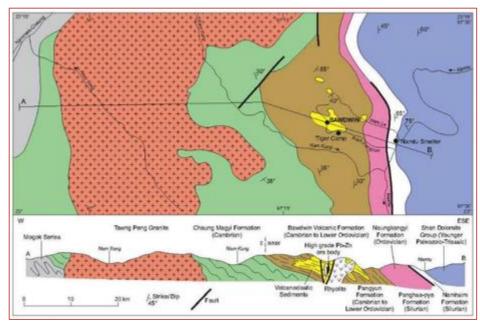
# Bawdwin is vastly underexplored

- Consists of three principal sulphide lodes, Chinaman, Meingtha and Shan along 4km strike
  - Bawdwin generally considered a 'structurally modified' VMS deposit or a hybrid epithermal deposit still largely unexplored

Potential for a much larger mineralised system to exist with unrecognised Cu-Au potential

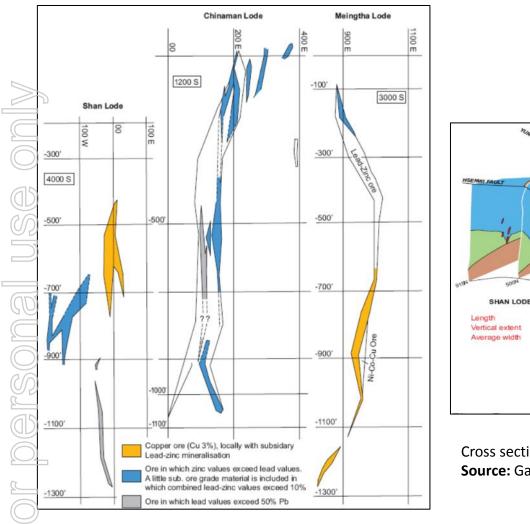


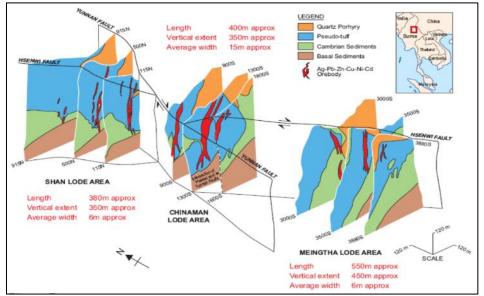
Geology of the Bawdwin Mine area. After Bender, 1983 Source: Gardiner et al., in press



Geological map of the Bawdwin district with district-scale cross section. After Brinkman and Hinze, 1981 **Source:** Gardiner et al., in press







Cross sections of the Bawdwin Mine lodes. After Bender, 1983 **Source:** Gardiner et al., in press



#### Near term value drivers

- Extensive exploration & work program planned during option period
- CSA Global has been engaged to undertake due diligence
- Discussions with debt and equity financiers is underway and advancing key value catalyst





### TND corporate snapshot

Existing shares on issue	367m
Options on issue	194m
Market capitalisation @ \$0.06	\$22.02m
Cash position (31 March 17)	~\$0.6m

#### **Board & Management\***

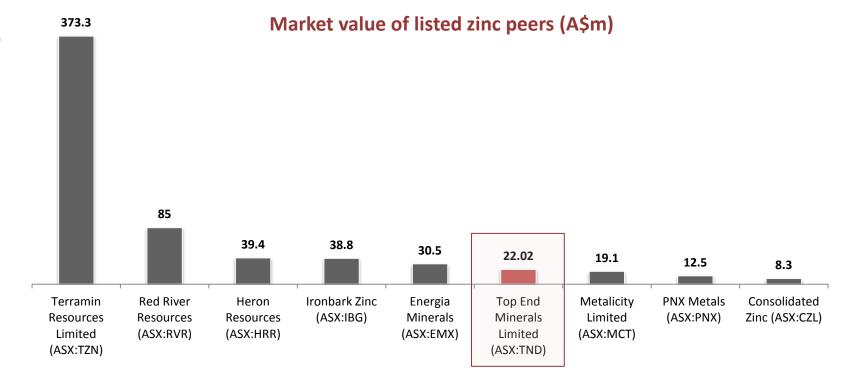
CEO & Chairman	Mr Mordechai Gutnick		
CFO & Company Secretary	Mr Peter Lee		
Director	Dr David Tyrwhitt		
*Assessing additional experienced Board &management candidates			

#### Price & Volume: (Period: November 2016 – May 2017)





### **ASX-Listed Zinc Producers Peer Comparisons**



#### TND well placed for re-rating

Value to be realised from option conversions, production and exploration activities and funding



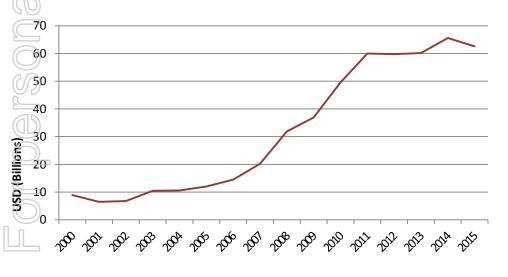
### Myanmar – Country Snapshot

51.4 million
Naypyidaw
Buddhist
India, China, Thailand, Laos, Bangladesh

#### Economic potential:

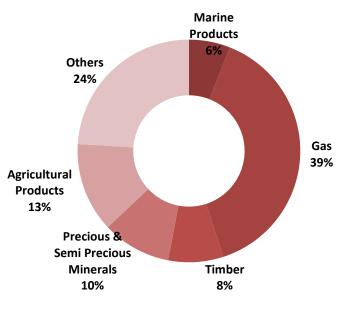
GDP:	US\$56.4 billion
GDP:	US\$1,105 per capita
Average Salary	US\$65 per month
Workforce:	32 million people

Growth in GDP (USD) 2000 - 2015



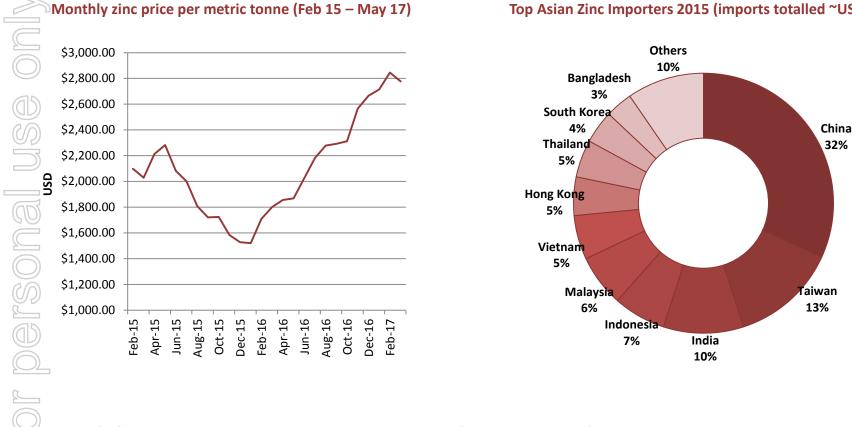
Source: World Bank

#### Export breakdown by products





# Strong commodity tailwinds and Asian export exposure



Top Asian Zinc Importers 2015 (imports totalled ~US\$4.4b)

TND's flagship assets located ~160 kilometres from the world's second largest zinc importer

China's spend on zinc in 2015 topped US\$1.4 billion

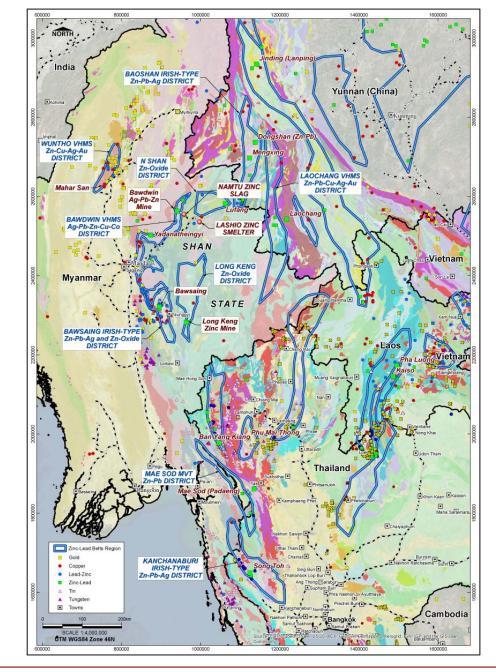


32%

# Myanmar's Shan State – awash with opportunity

- Shan State's geology hugely compelling and untouched
- Enormous underexplored zinc belts
- Number of old mining sites adjacent to Bawdwin

Multiple large-scale Zn-oxide deposits being assessed by TND and partners



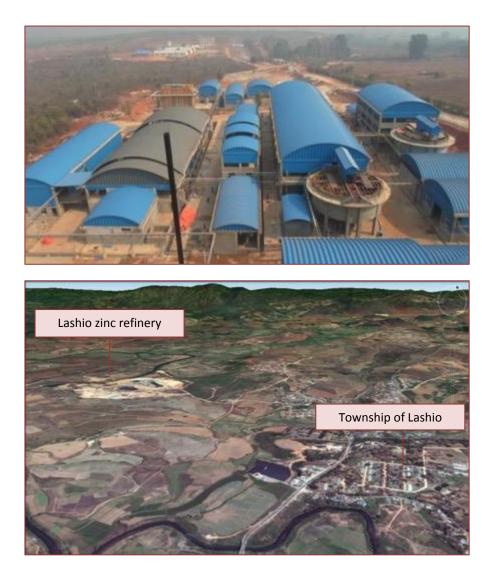


# TND also has options over Lashio Zinc Refinery and Long Keng Mine

Only modern zinc refinery in Myanmar's highly prospective Shan Plateau zinc and base metal province

- Commissioned in February 2015
- Capacity of 10,000t of LME refined (99.99%) zinc

Plans to scale up capacity to 18,000t per annum





# Long Keng Zinc Mine

Covers 8 km<sup>2</sup> of highly prospective ground adjacent to Lashio Zinc Refinery

Ore is presently being processed at the Lashio Zinc Refinery

Long Keng occurs in a large Zn-oxide district

Asset/district can be further developed through modern exploration and development



