



NORTHERN STAR
RESOURCES LIMITED
ASX Code: NST



An Australian gold miner – for global investors
Corporate Strategy Day August 2017

Competent Persons Statements

The information in this announcement that relates to exploration results, data quality, geological interpretations and Mineral Resource estimations for the Company's Project areas is based on information compiled by Darren Cooke, a Competent Person who is a Member of the Australian Institute of Geoscientists and a full-time employee of Northern Star Resources Limited. Mr Cooke has sufficient experience that is relevant to the styles of mineralisation and type of deposits under consideration and to the activity 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" for the Company's Project areas. Mr Cooke consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

The information in this announcement that relates to Ore Reserve estimations for the Company's Project areas is based on information compiled by Jeff Brown and fairly represents this information. Mr. Brown is a Member of the Australian Institute of Mining and Metallurgy who is a full-time employee of Northern Star Resources Limited and 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. Brown consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

The information in this announcement that relates to the Central Tanami Gold Project is extracted from the Tanami Gold NL ASX announcement entitled "Quarterly Report for the Period Ending 31 March 2014" released on 1 May 2014 and is available to view on www.tanami.com.au.

The information in this announcement that relates to mineral resource estimations, data quality, geological interpretations and potential for eventual economic extraction for the Groundrush deposit at the is Central Tanami Gold Project based on information compiled by Darren Cooke a Competent Person who is a Member of the Australian Institute of Geoscientists and a full-time employee of Northern Star Resources Limited. Mr. Cooke 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" for the Group reporting. Mr. Cooke consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

The Company confirms that it is not aware of any further new information or data that materially affects the information included in the original market announcement entitled "Quarterly Report for the Period Ending 31 March 2014" released on 1 May 2014 and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. To the extent disclosed above, 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 announcement.

Forward Looking Statements

Northern Star Resources Limited has prepared this announcement based on information available to it. No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this announcement. To the maximum extent permitted by law, none of Northern Star Resources Limited, its directors, employees or agents, advisers, nor any other person accepts any liability, including, without limitation, any liability arising from fault or negligence on the part of any of them or any other person, for any loss arising from the use of this announcement or its contents or otherwise arising in connection with it.

This announcement is not an offer, invitation, solicitation or other recommendation with respect to the subscription for, purchase or sale of any security, and neither this announcement nor anything in it shall form the basis of any contract or commitment whatsoever. This announcement may contain forward looking statements that are subject to risk factors associated with gold exploration, mining and production businesses. It is believed that the expectations reflected in these statements are reasonable but they may be affected by a variety of variables and changes in underlying assumptions which could cause actual results or trends to differ materially, including but not limited to price fluctuations, actual demand, currency fluctuations, drilling and production results, Reserve estimations, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory changes, economic and financial market conditions in various countries and regions, political risks, project delay or advancement, approvals and cost estimates.

All currency conversions in this presentation have been converted at a currency of AUD/USD conversion rate of A\$0.76

(1) EBITDA is earnings before interest depreciation, amortisation and impairment and is calculated as follows: Profit before Income tax plus depreciation, amortisation, impairment and finance costs less interest income.

(2) Free Cash Flow is calculated as operating cash flow minus investing cash flow.

(3) Underlying Free Cash Flow is calculated as follows: 31 Dec 2016 - free cash flow (\$12.8 million) plus bullion awaiting settlement (\$10.6 million), plus stamp duty paid on prior acquisitions (\$1.7 million), plus investments in Available for sale assets (\$0.8 million), plus FY2016 tax (\$33.6 million), less working capital adjustment (\$3.4 million). 31 Dec 2015 - free cash flow (\$66.4 million) plus bullion awaiting settlement (\$9 million), plus acquisition and exploration of Central Tanami Project (\$17.3 million), plus stamp duty paid on prior period acquisitions (\$5.0 million), less working capital adjustment (\$1.0 million).

EBITDA, Underlying Free Cash Flow and All-in Sustaining Costs (AISC) are unaudited non IFRS measures.

* All Data from Bloomberg referenced sources has had all N.A. and erroneous data points removed in the associated sector comparisons and all GDX data point comparisons have had streaming company data removed for a better reflection of the producing companies within the indices

Acknowledgement of Country



- ✦ Northern Star Resources acknowledges the Traditional Owners of country whose land we are meeting on today, the
Whadjuk Nyoongar people
- ✦ We recognise their continuing connection to land, water and community, and pay our respect to their elders past, present and future
- ✦ We wish them the best in their endeavours in the spirit of reconciliation



NST Corporate Strategy Day Agenda

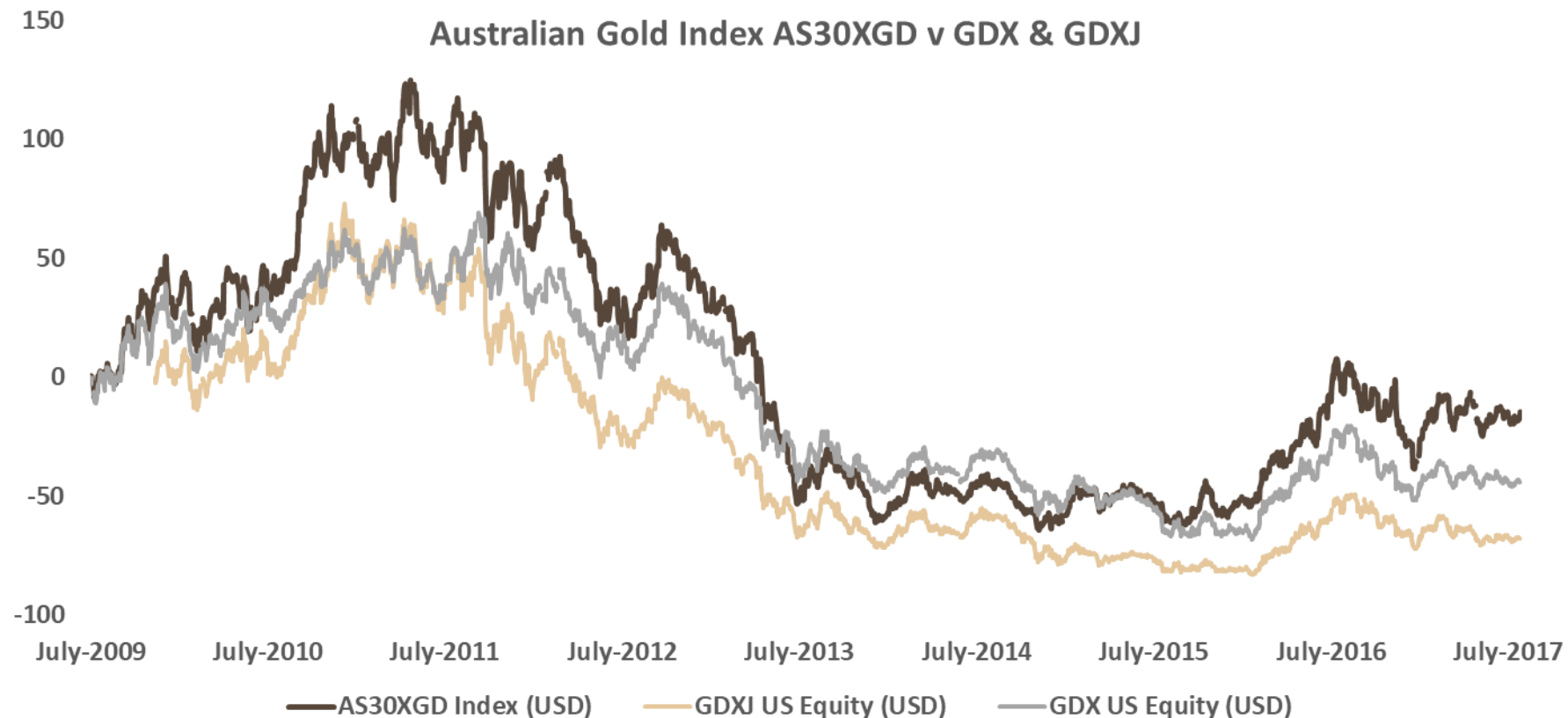


Time	Agenda	Speaker
12:00pm	Registration	
12:00 - 12:30	Working Lunch	
12:10 - 12:15	Gold Sector Backdrop	Luke Gleeson - Investor Relations
12:15 - 12:40	Gold Macro Landscape, NST Strategy and Vision	Bill Beament - Executive Chairman
12:40 - 13:00	Company Performance, Achievements & Outlook	Stuart Tonkin - Chief Executive Officer
13:00 - 13:15	Financial Strength & Business Focus	Shaun Day - Chief Financial Officer
13:15 - 13:25	Environmental, Social & Corporate Governance	Luke Gleeson - Investor Relations
	Martu Rangers Program and Shared Value	Guy Singleton - Principal ESG & Government Relations
13:25 - 13:35	Coffee Break	
13:35 - 14:05	Asset Overview	Darren Stralow - General Manager Operations
14:05 - 14:35	Geology Update	Michael Mulroney - Chief Geological Officer
14:35 - 14:50	Northern Star Mining Services and Asset Optimisation	Luke Creagh – General Manager Growth and NSMS
14:50 - 15:00	Innovation & Technology	Luke Creagh – General Manager Growth and NSMS
15:00 - 15:15	Summary and Recap	Bill Beament - Executive Chairman
15:15 - 15:30	Question and Answers	

Gold Sector Backdrop



- ✦ Since 2009 the Australian gold index as represented by the AS30XGD index has on the whole outperformed both the GDX and GDXJ indices by a considerable margin on a currency adjusted basis
- ✦ That outperformance spread has widened over the last 18 months and can be attributed to the improved financial returns of the sector



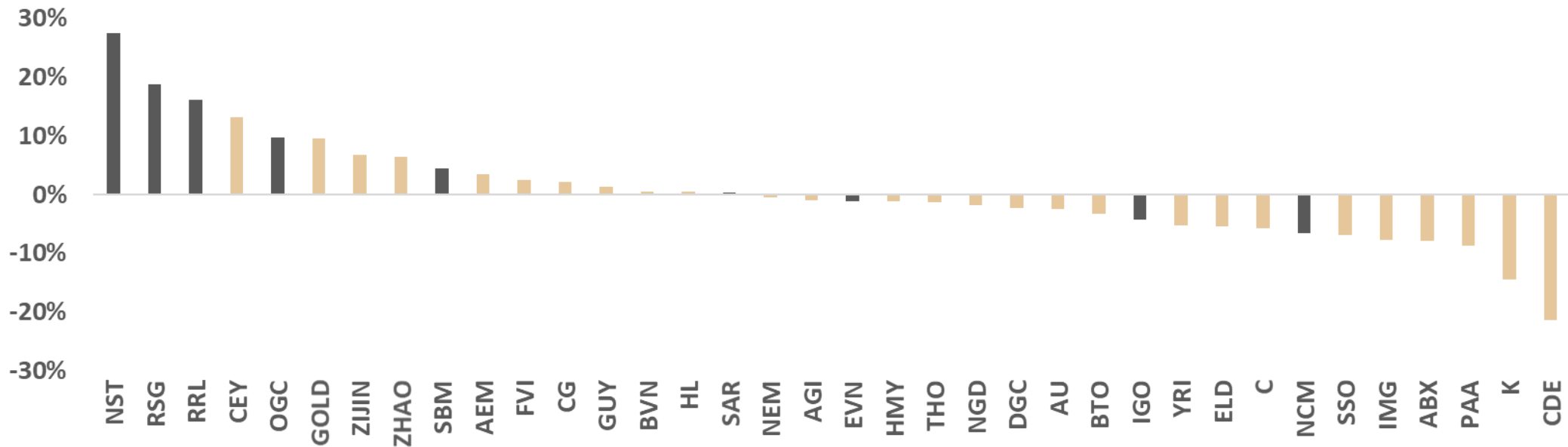
Source: Bloomberg

The Australian sector is in good shape and trading at a discount



- ✦ Over the last five years Australian stocks generate the highest level of Return on Invested Capital in the GDX index
- ✦ However when comparing the two jurisdictions on a EV//EBITDA* basis Australian established producers trade at a discount on a FY18 EV/EBITDA multiple of 3.94x compared to a multiple of 5.87x EV/EBITDA for FY18 for the US large cap producers and 4.77x FY18 EV/EBITDA for the mid to small cap US producers

5 Year Return on Invested Capital



Source: Bloomberg, royalty companies and erroneous data points have been removed
 * Canaccord Genuity research



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Strategy and Vision – Northern Star Resources August 2017

Highlights of FY2017 – Celebrating Successes



- ✦ Safety Performance improvement
 - ✦ *Reduction in LTIFR, TRIFR*
- ✦ Production Growth to 515kozpa
 - ✦ *Company quarterly record, Despite divestment of Plutonic*
- ✦ Significant Cash build and Balance sheet strength
 - ✦ *Even though CAPEX up, Drilling up, Dividend up & Tax up*
- ✦ Largest Exploration Budget executed
 - ✦ *\$56M (although our Geos asked for \$100M...)*
- ✦ Expanded Board and Executive Restructure
 - ✦ *Preparation for further growth*
- ✦ EKJV Contract conversion
 - ✦ *.....and back again!*
- ✦ Plutonic Divestment & Transition
 - ✦ *Continued shareholding*
- ✦ Millennium underground establishment
 - ✦ *Rapid development of first new NST mine*

ORE RESERVES									
As at 30 June 2017									
	PROVED			PROBABLE			TOTAL RESERVES		
	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces
NST ATTRIBUTABLE	(000's)	(gpt)	(000's)	(000's)	(gpt)	(000's)	(000's)	(gpt)	(000's)
TOTAL	4,607	4.4	646	21,355	4.2	2,861	25,962	4.2	3,506

MINERAL RESOURCES												
As at 30 June 2017												
	MEASURED			INDICATED			INFERRED			TOTAL RESOURCES		
	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces
NST ATTRIBUTABLE	(000's)	(gpt)	(000's)	(000's)	(gpt)	(000's)	(000's)	(gpt)	(000's)	(000's)	(gpt)	(000's)
TOTAL	7,051	4.3	975	41,167	4.0	5,352	43,732	2.8	3,902	91,949	3.5	10,229



2017 YTD Financial Highlights

A\$447M in cash and equivalents - no bank debt

43% Return on Equity and 38% Return on Invested Capital

EBITDA Margin 53% up 24% from pcp

FY17 Operating Highlights

FY17 gold production of ~515koz
(top end of 485-515koz guidance)

FY17 AISC of A\$1,013/oz
(bottom end of A\$1000-A\$1,050/oz guidance)

Record qtrly gold Production of 154koz, AISC of A\$938/oz

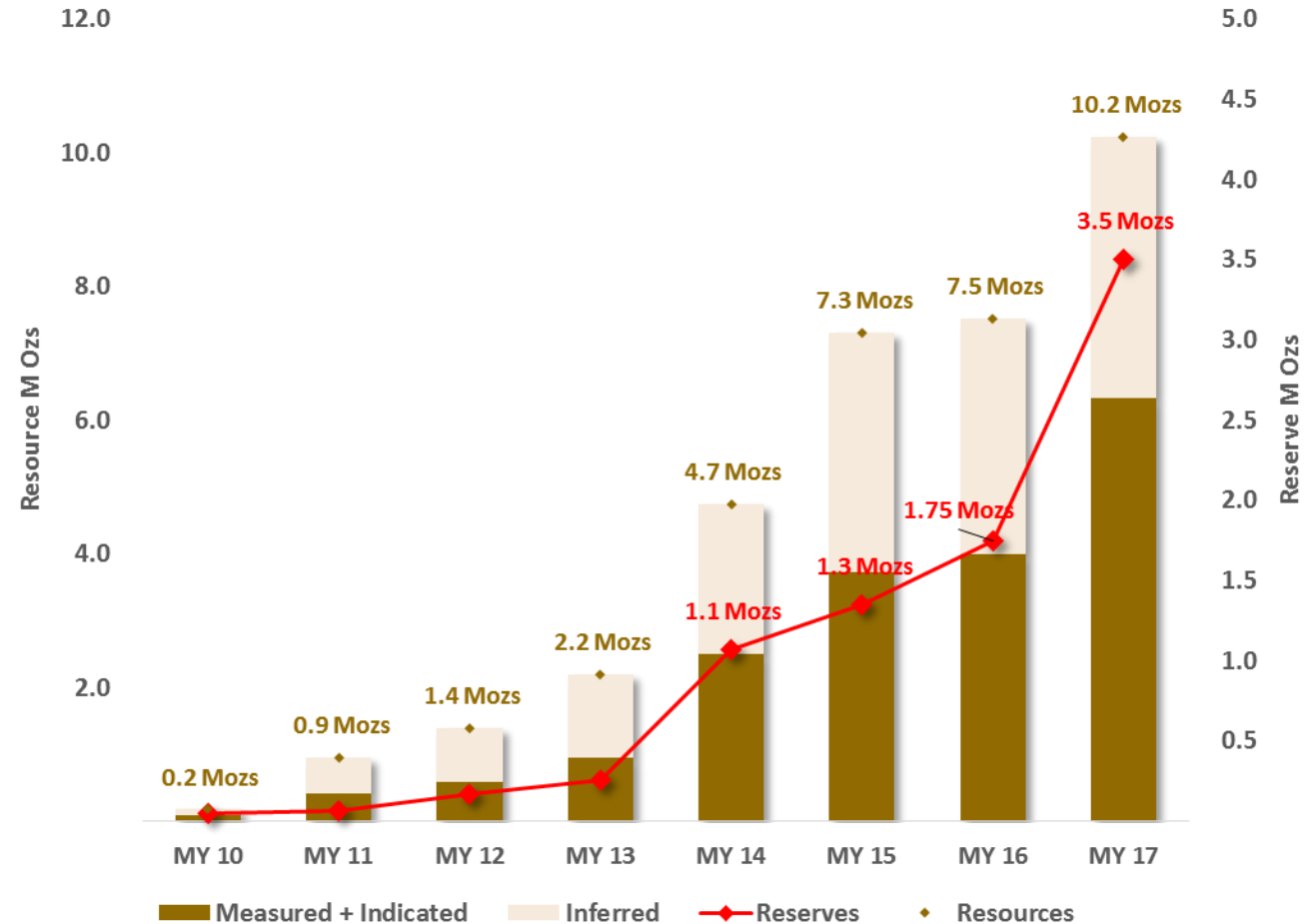
✦ Northern Star’s strategy is underpinned by three key strategic pillars and a people-centric foundation



Growth around our Tier 1 Assets has been the core focus

- ✦ NST has invested A\$250M in exploration and expansionary CAPEX since the acquisition of its Tier 1 portfolio 3 years ago
- ✦ In FY2017, NST invested A\$56M into exploration
- ✦ This investment saw Group Reserves nearly triple to 3.5Moz after mine depletion, at a cost of just A\$24/oz
- ✦ Setup well to replace or grow Reserves again this year
- ✦ Group Resources increased by 2.7Moz to 10.2Moz
- ✦ Measured and Indicated Resources increased 58% to 6.3Moz
- ✦ This investment has enabled the Company to provide **a clear road map for at least the next decade**

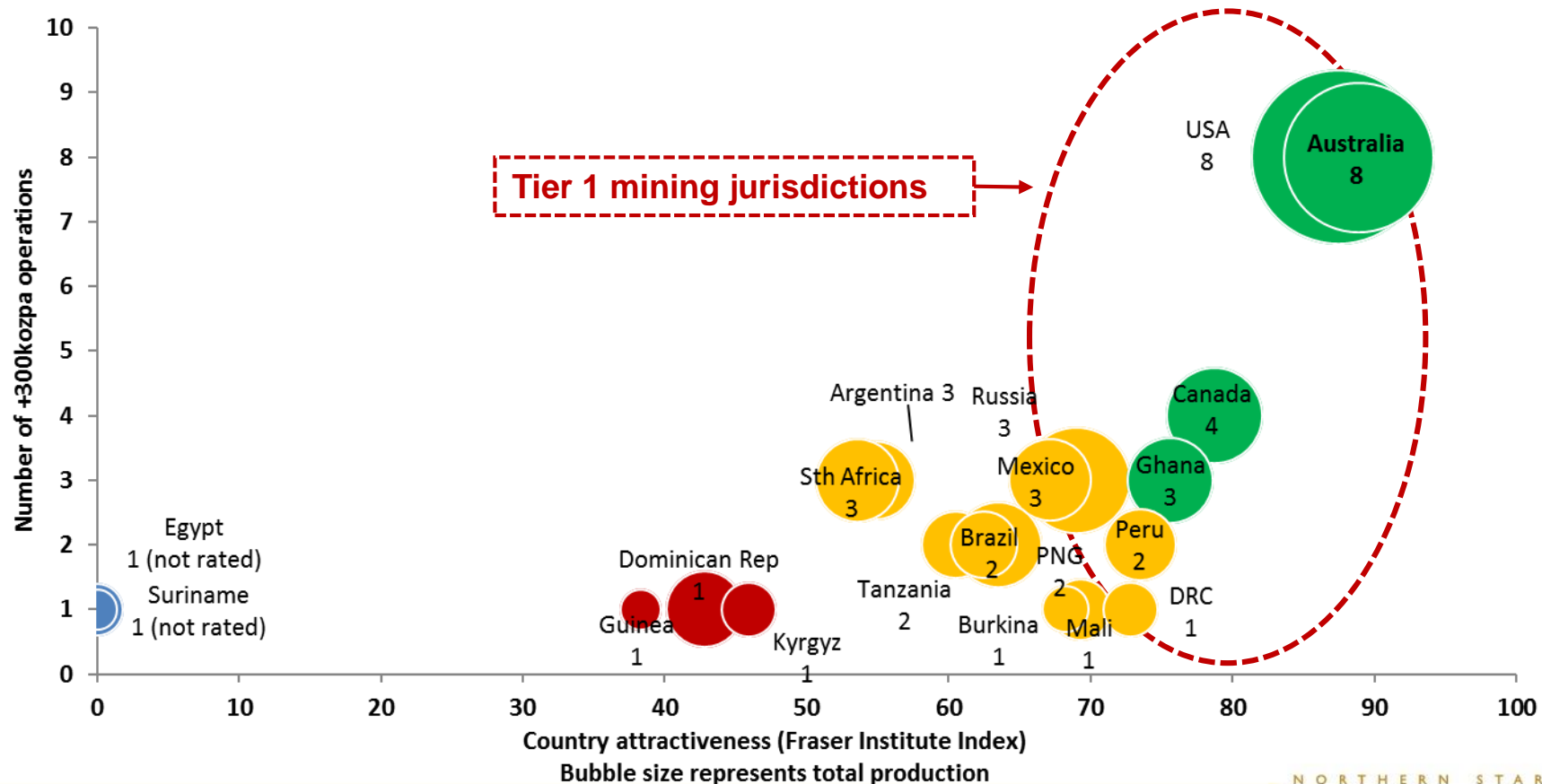
NST Resource and Reserve Growth



Growth around our Tier 1 Assets has been the core focus



- ✦ Globally there are only 23 mines producing over 300kozpa in Tier 1 mining jurisdictions; production is declining in these regions due to a lack of discoveries and significant Reserve depletion
- ✦ NST has two mines that will shortly join that list of assets that produce at this rate; Jundee and Kalgoorlie
- ✦ These two mines now have world class status as they meet the criteria of; Large +5Moz endowments, history of Reserve/Resource replacement, large production profile, lowest quartile costs, strong cashflow and future mine life

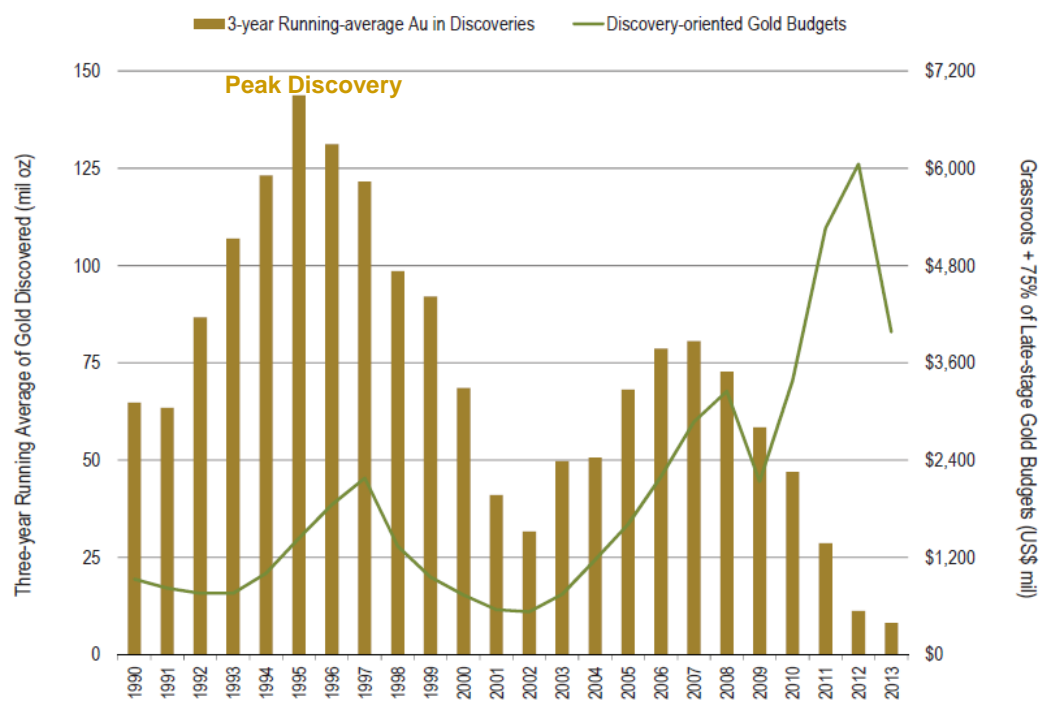


Global Gold Trends: Gold discoveries & exploration



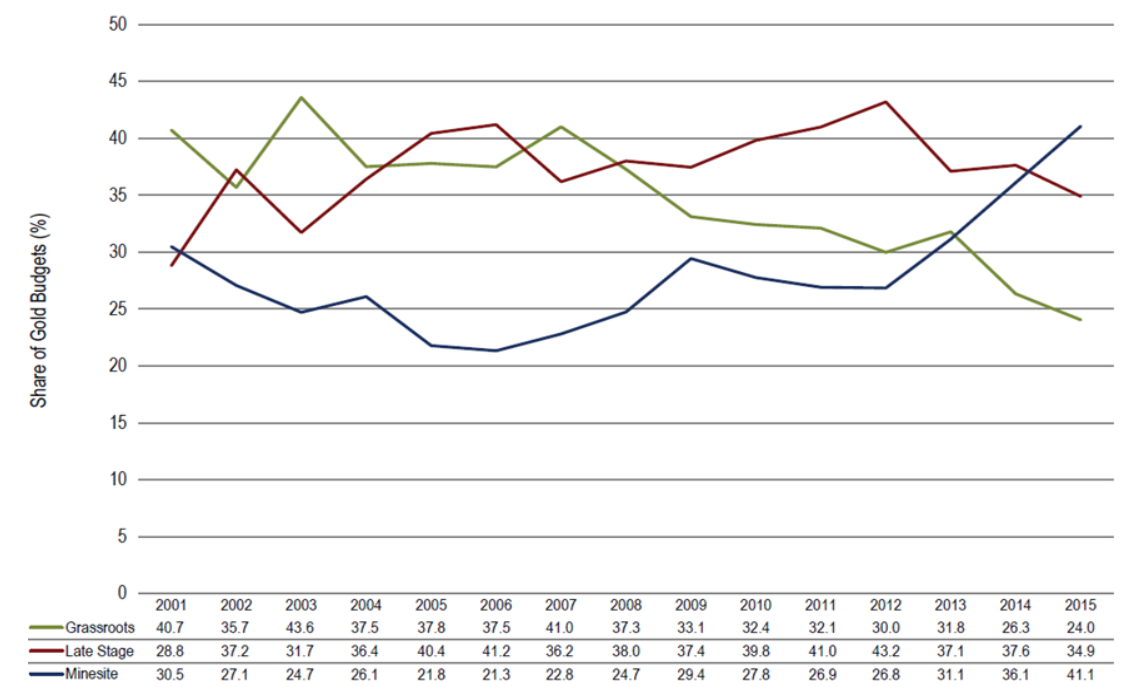
- ✦ Substantial reduction in major discoveries world wide; greenfield discoveries now cost over A\$200 per ounce, NST costs were A\$21 per resource ounce over the last three years
- ✦ Exploration is becoming more focussed around the mine site due to a lack of greenfield discoveries
- ✦ Majority of future gold production is heading underground, in Australia 56% of production is now from underground sources vs 44% from open pit*; NST skill set can capitalise on this global trend over the next decade

Gold discoveries have decreased despite a rising gold price



Source: SNL

Exploration budgets are being focussed around the mine site



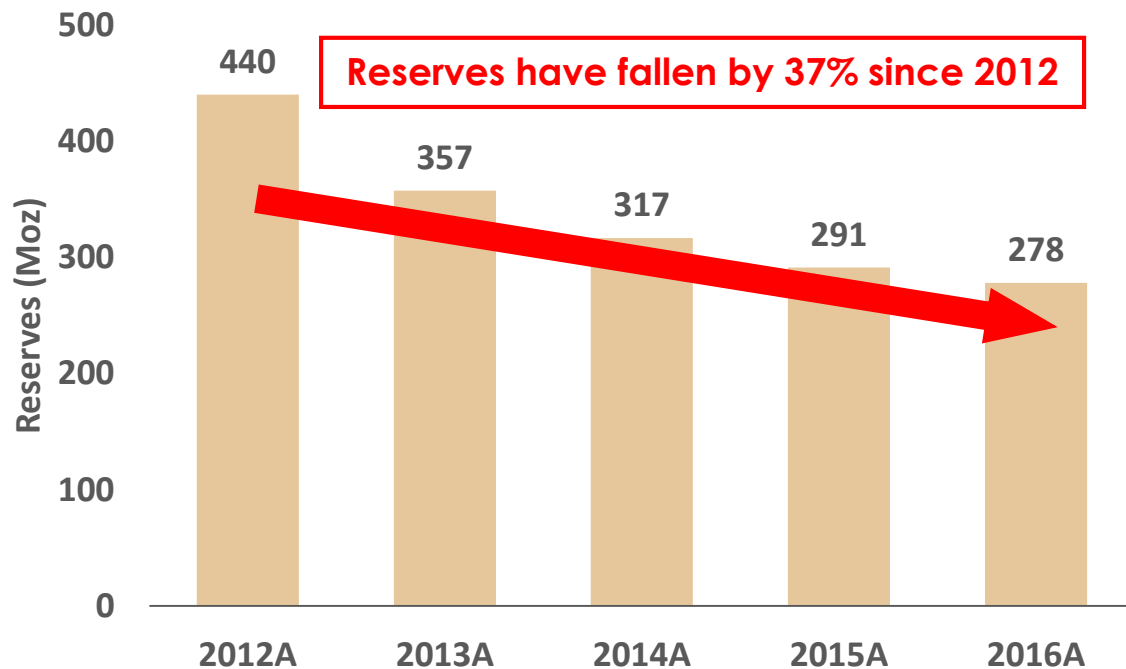
Source: SNL
Source: *Centre of Exploration Targeting Research

Northern Star continues to buck the global trend

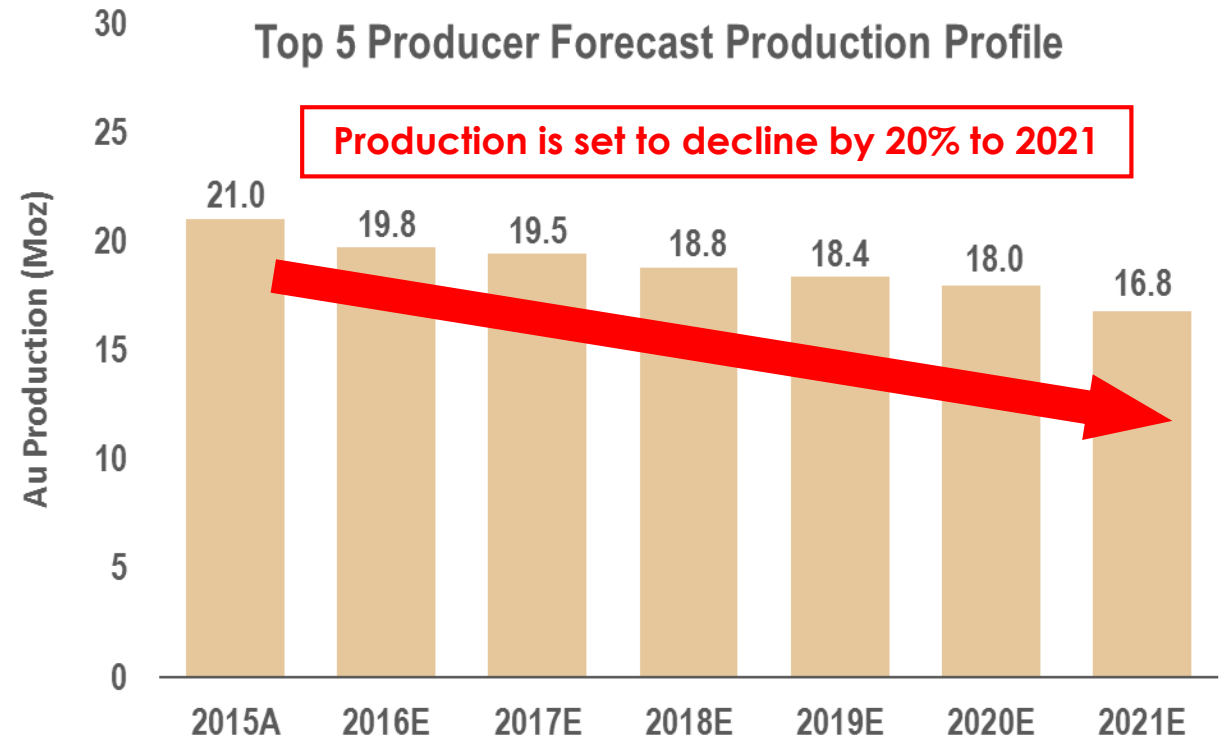


- ✦ Since 2012 Reserve life of the top five global producers has declined by 37%; whilst NST's Reserves have grown by 220% in just three years by investing into successive exploration programs
- ✦ Production from the top five producers is also forecast to decline by 20% from 2015 to 2021*, whilst NST is growing production 20% in 2018
- ✦ Under-investment in exploration, little M&A and shorter lives brings longer term production portfolios under scrutiny

Top 5 Producer Gold Reserves



Top 5 Producer Forecast Production Profile

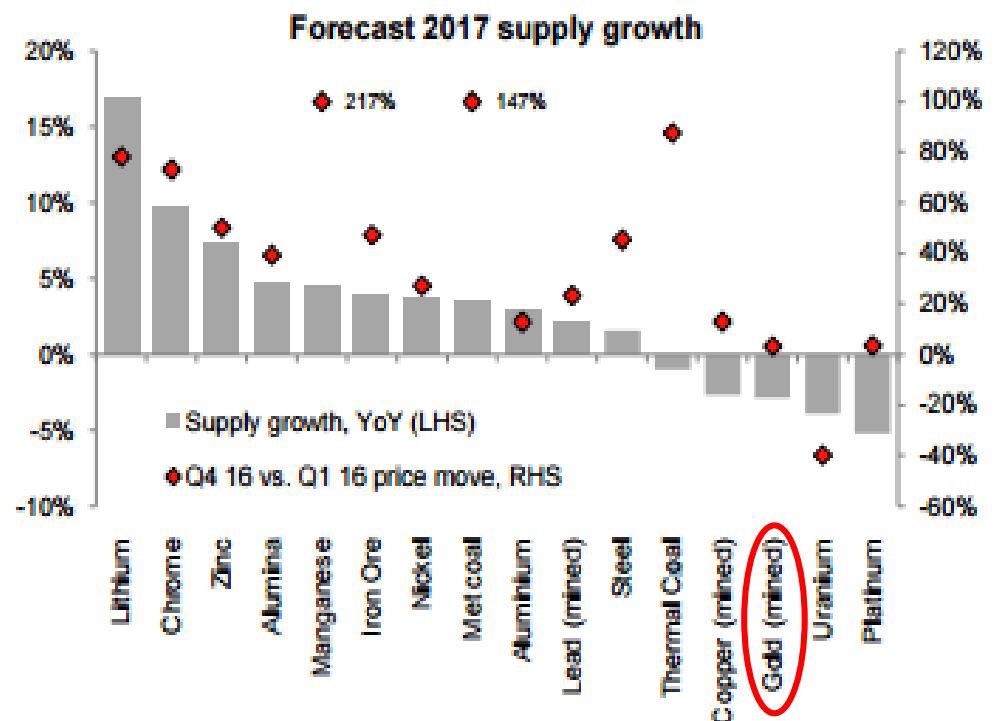
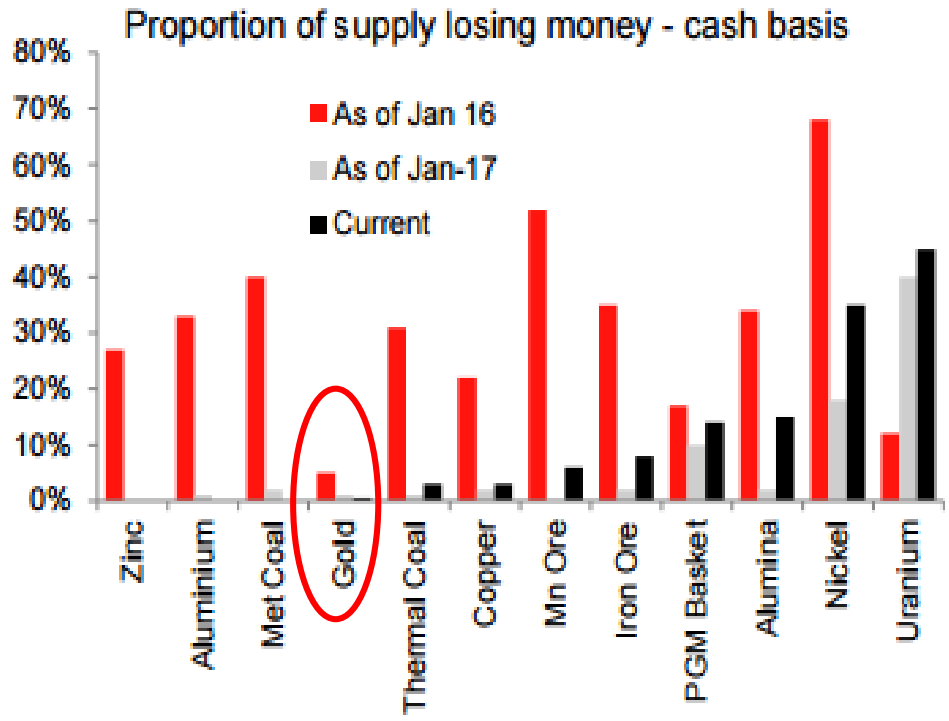


Source: Company announcements

Source: * RBC Estimates

...and the sector is “profitable” again...

- ✦ Not much global supply is losing money at spot prices
- ✦ Supply response to demand is measured in years, not weeks



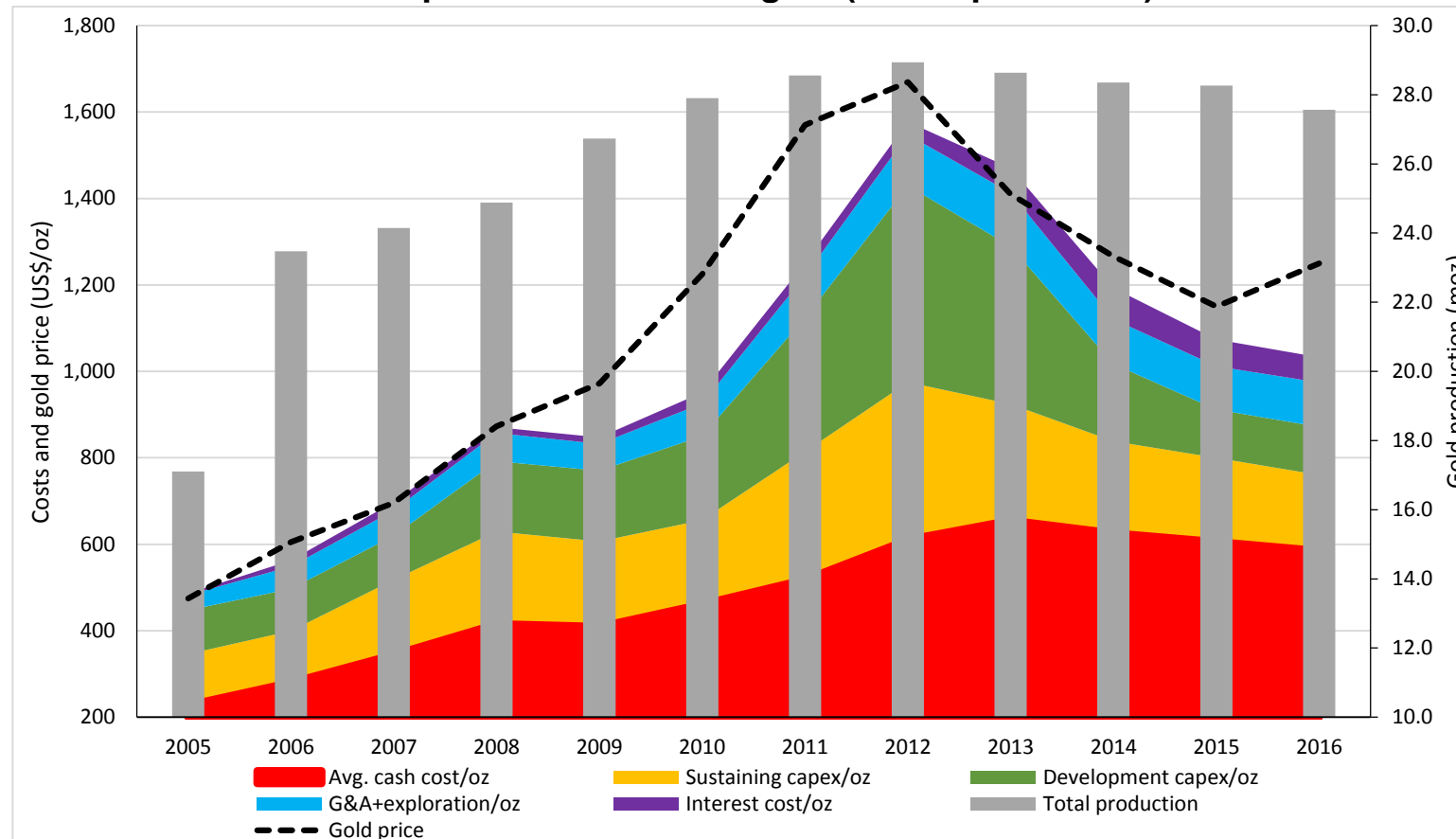
Source: IAI, CRU, ICSG, ILZSG, Wood Mackenzie, Macquarie Research, June 2017

...in a large part due to cost/CAPEX cutting



- ✦ Senior producers have done well responding to lower prices – how much more to follow?
- ✦ CAPEX/oz back down to 2005 levels for senior producers, higher interest payments offsets cuts to G&A/exploration

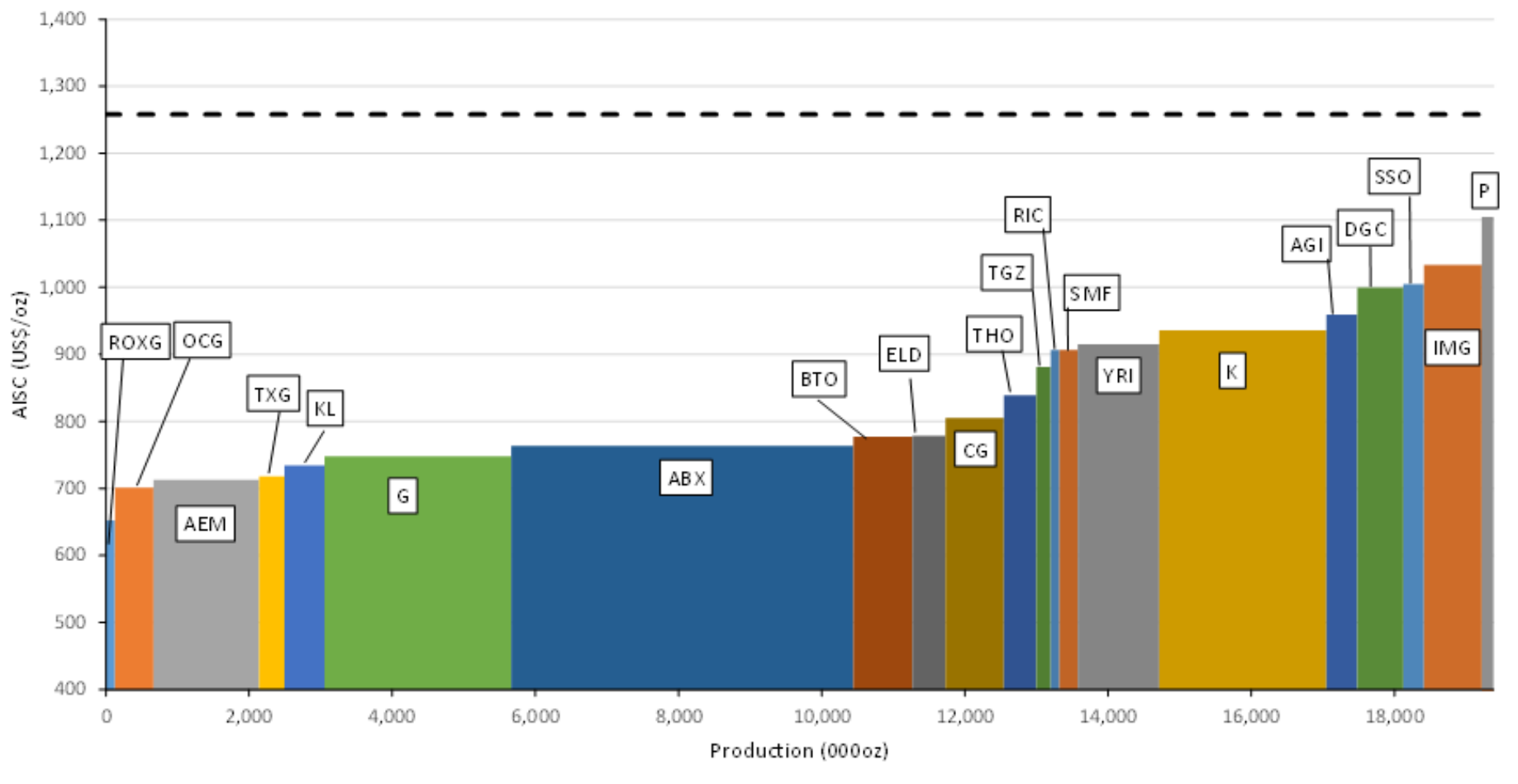
Total per ounce costs vs. gold (senior producers)



Source: Company reports, Wood Mackenzie, Macquarie Research, June 2017

...leading to margin expansion

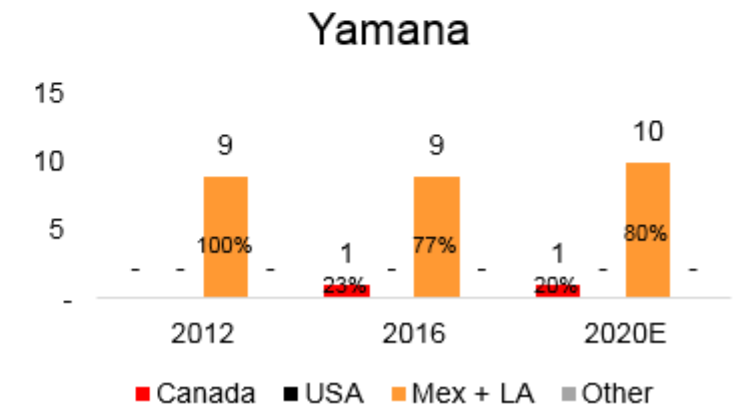
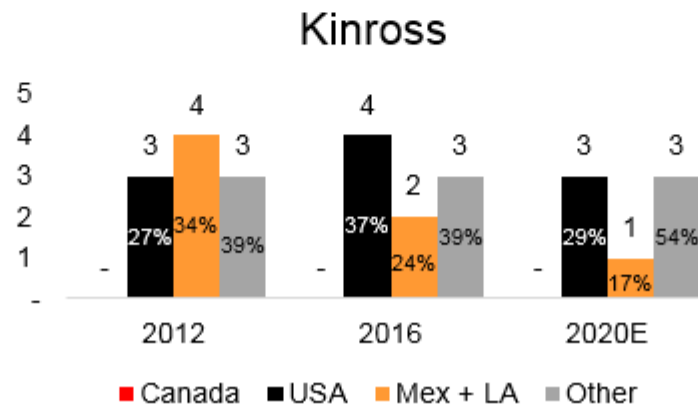
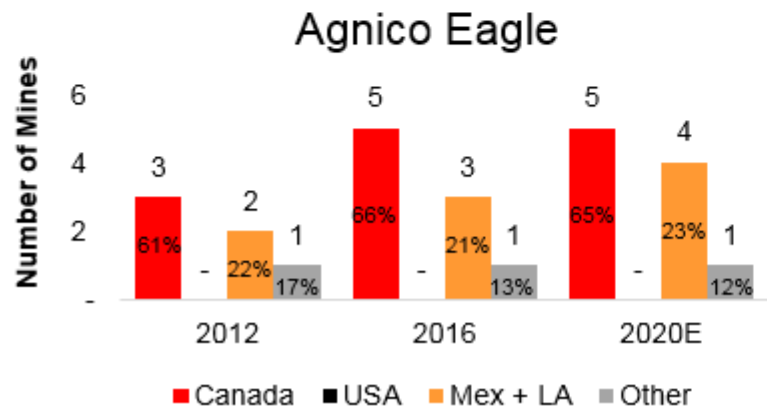
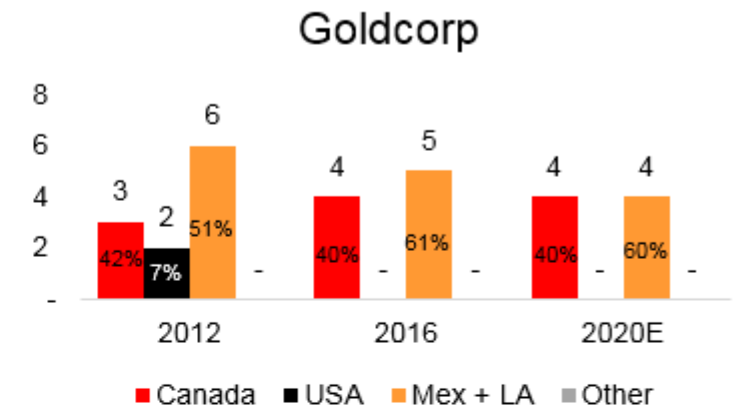
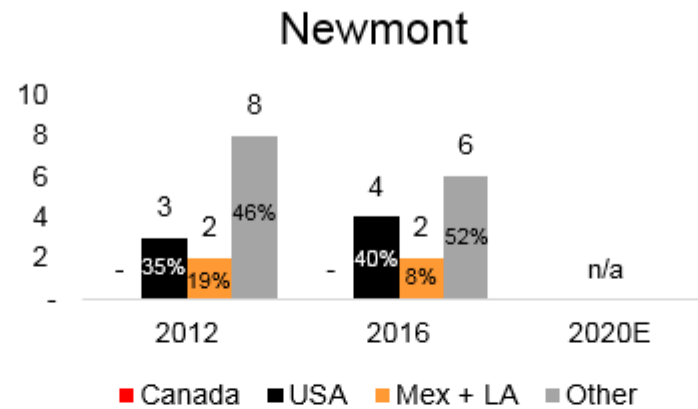
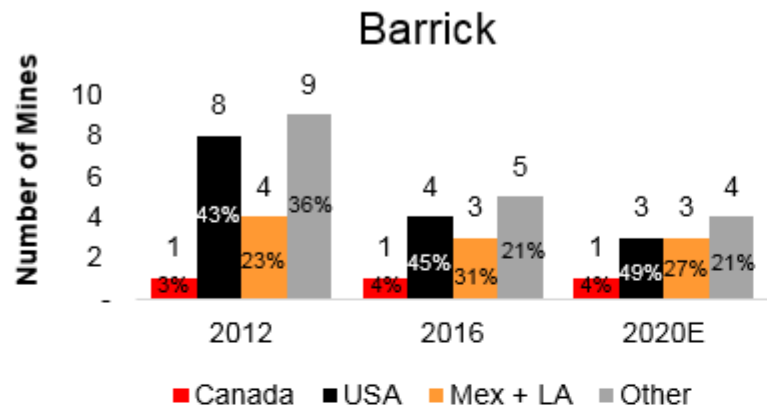
- ✦ Most senior and intermediate producers are now making money, but for how long?
- ✦ Where is production growth coming from?



Senior Producers – Operations by Country



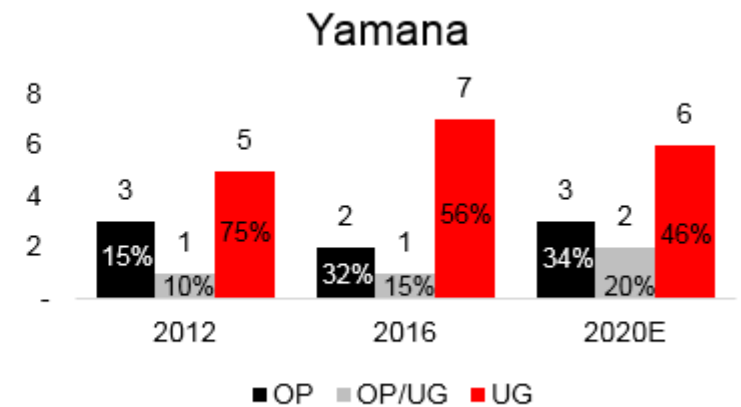
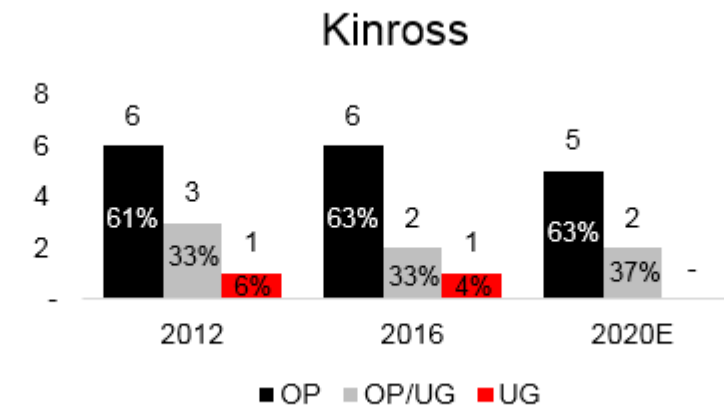
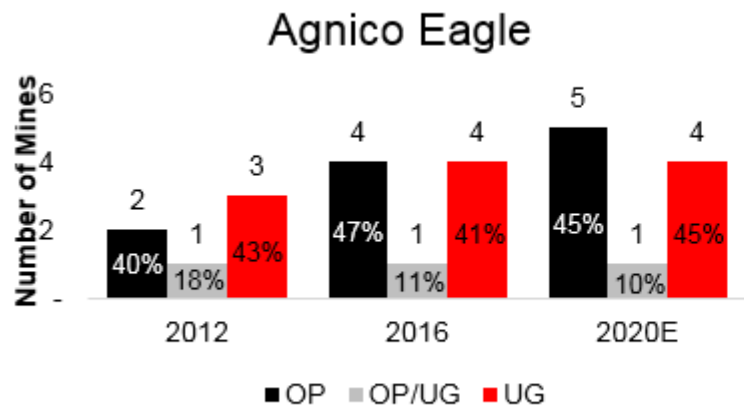
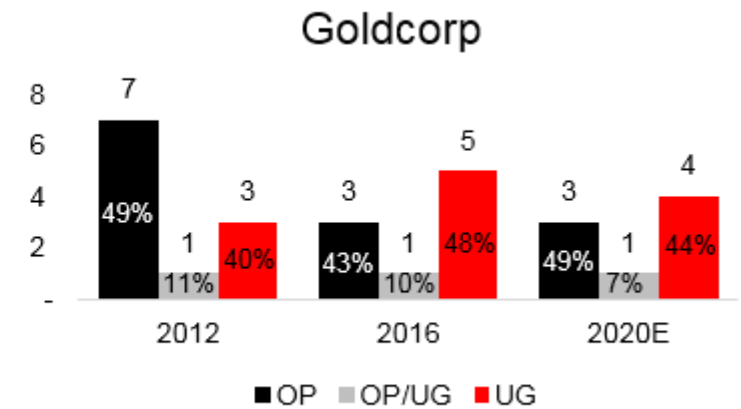
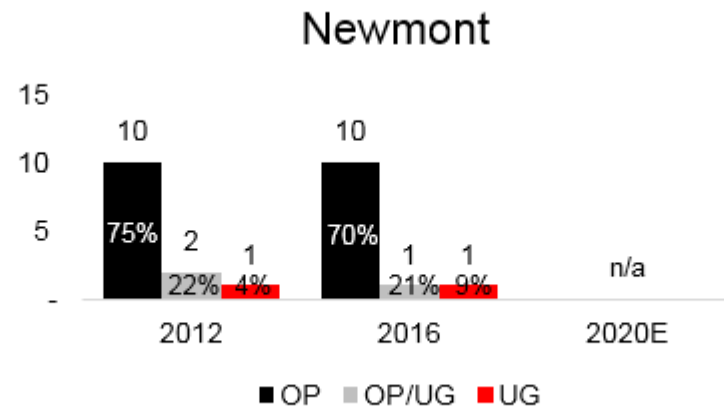
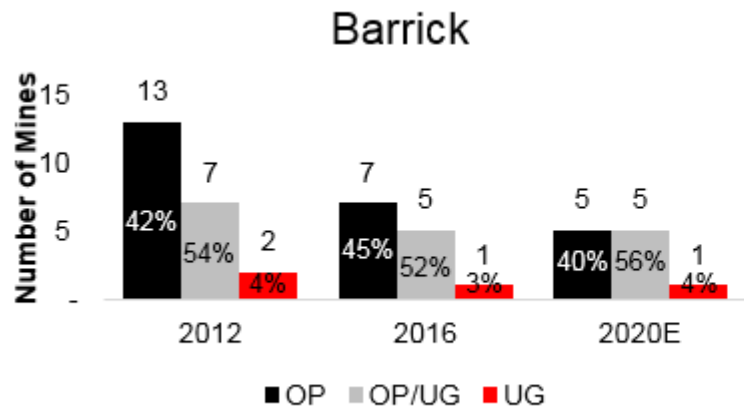
- ✦ Canada, Australia and US still preferred for jurisdictions for growth/M&A among strategics and institutions
- ✦ Appetite for riskier jurisdictions is increasing due to a lack of assets in Tier 1 jurisdictions



Senior Producers – Operations by Type



- ✦ Gold mines broken down for open pit / underground / combined production
- ✦ The clear trend is operations globally are transitioning underground

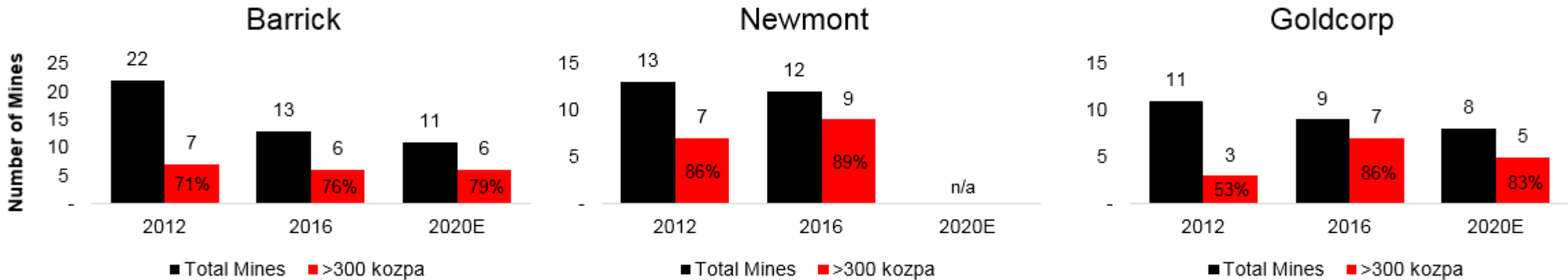


Note: Percentages indicate contribution to total gold production. May not add up due to rounding.

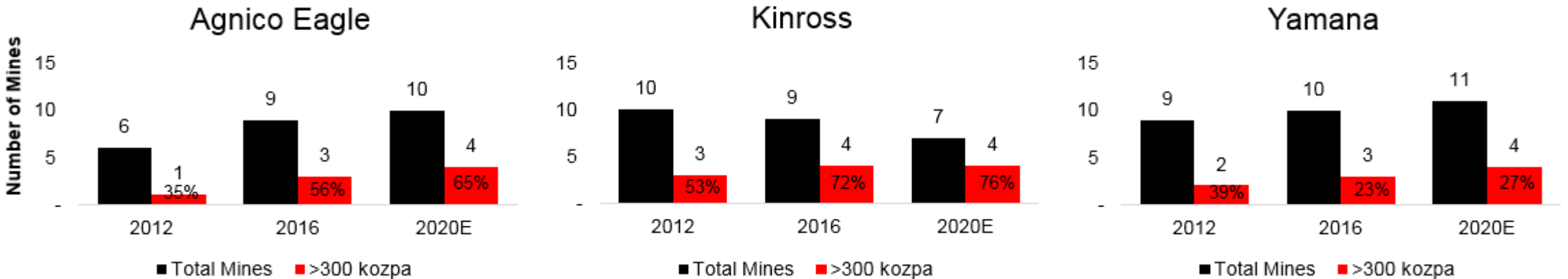
Senior Producers – Operations by Size



✦ Top 3 seniors have narrowed focus onto larger +300kozpa operations



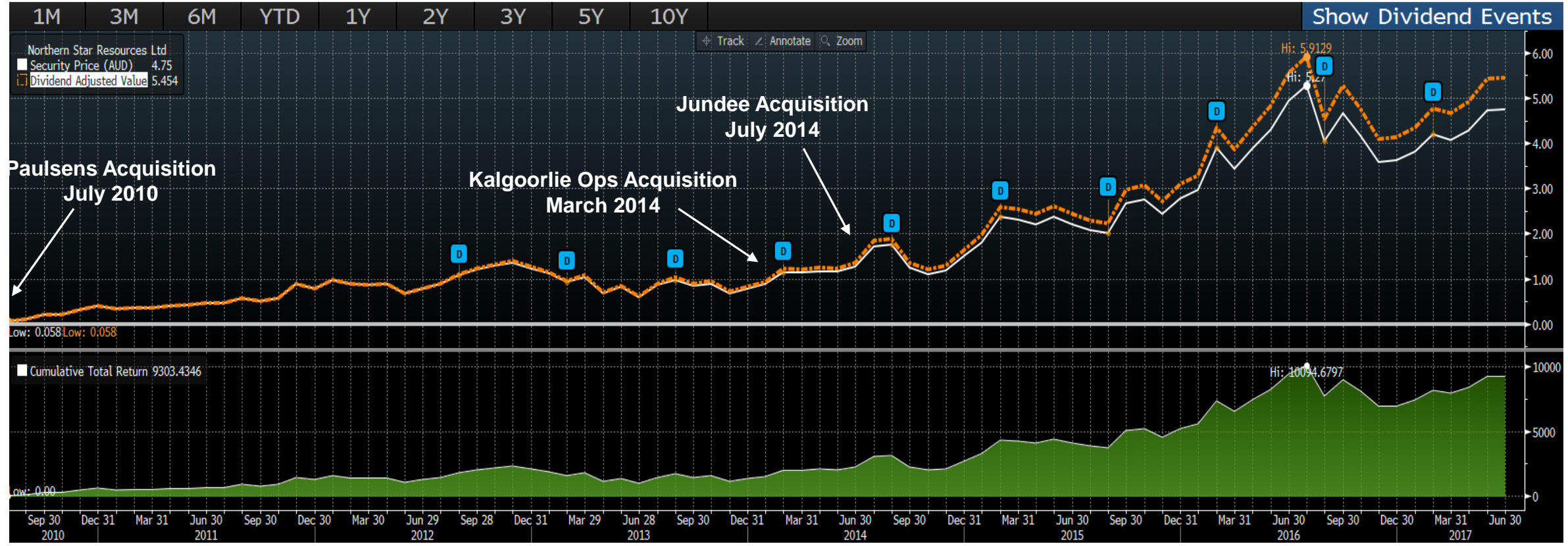
✦ Remaining continue to focus on high-margin operations



Note: Percentages indicate contribution to total gold production.

Delivering Income & Growth - The holy grail for resource investors

- ✦ NST has provided the optimum balance of income vs capital return to its Shareholders over the last five years
- ✦ The business has paid out over A\$150M to Shareholders in the form of dividends since 2012
- ✦ Combining capital growth and income NST has generated on average a Total Shareholder Return of 188% per annum since FY2011 to FY2016 and was the first ranked mining company in the ASX200





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An Australian gold miner – for global investors
Company Performance and Outlook August 2017

How Important is Culture?

- ✦ Understanding and preserving NST culture has been key to our success
- ✦ Since integration of the assets base, Implementation of the NST operating model has delivered significant returns for Shareholders
- ✦ As the business grows organically, maintaining this culture is key to delivering sustained results
- ✦ This innovative culture is a point of difference for NST to continue to generate industry-leading financial returns for Shareholders
- ✦ NST conducts a Leadership Forum annually and adds significant changes to the business
- ✦ We always have a plan that clearly maps out the business over a three year period



STARR Core Values – the Decision Compass

SAFETY

- Zero harm targets
- Enabling culture
- Continual improvement



TEAMWORK

- Cooperative
- No-one left behind
- No blame or excuses



ACCOUNTABILITY

- Clarity of role
- Ownership of outcomes
- Recognition of influence



RESPECT

- Visual positive presence in workplace
- Listen to understand concerns
- Constant and consistent communication



RESULTS

- Plan, Do, Review
- Build contingency
- Incentivise and reward results



- ✦ Leadership is key to developing the right culture which in turn delivers safe behaviours across the business
- ✦ Safety Management is integrated into all Leadership roles and business planning to deliver sustainable results
- ✦ We collaborate with our contract partners to ensure they are aligned to also meet our business goals
- ✦ An engaged workforce whom is empowered to implement change will strive for improvement in Safety
- ✦ Leading indicator of Hazard Identification and Rectification is a foundation of NST safety culture
- ✦ NST LTIFR at 1.8 is 33% under the industry average



Why did NST acquire these Assets?



- ✦ Assets acquired are on multi-million ounce Gold systems – annual production of 600koz represents 3% of total endowment
- ✦ These had been discovered from outcrop, mined from open pit, then transitioned to underground
- ✦ For varied reasons a lack of investment led to their operational deterioration
- ✦ NST recognised the opportunity to apply key skillset to restore these back to World Class Tier 1 mine status
- ✦ Jundee and Kalgoorlie operations capable of +300kozpa within two years



Northern Star's Operating Model has not changed



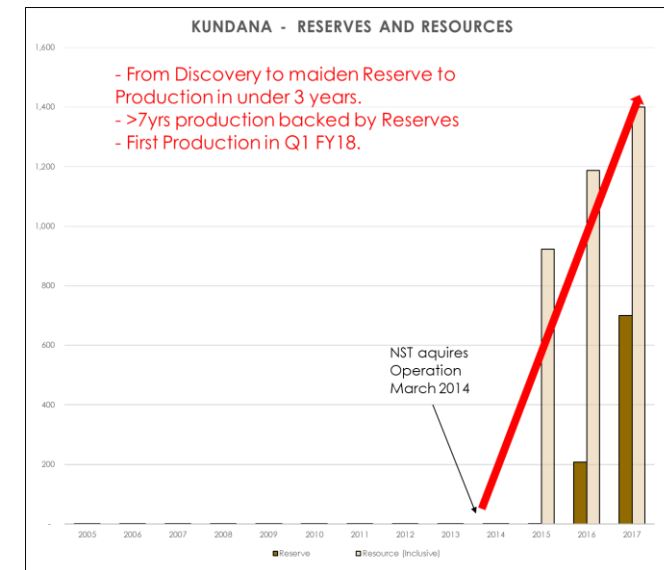
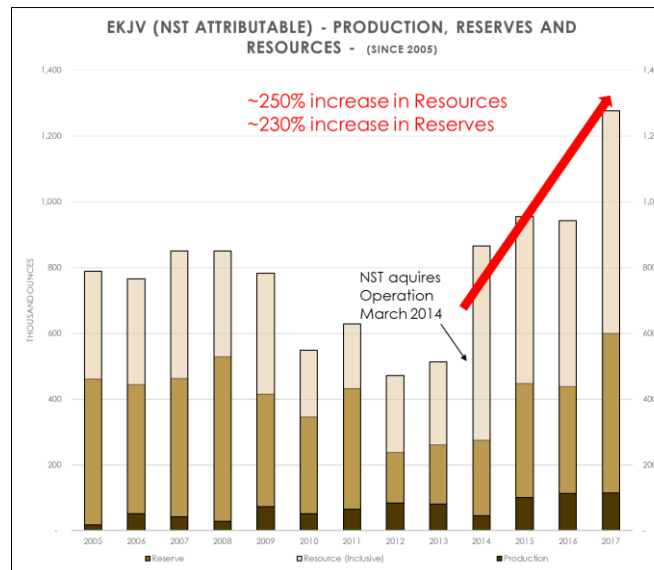
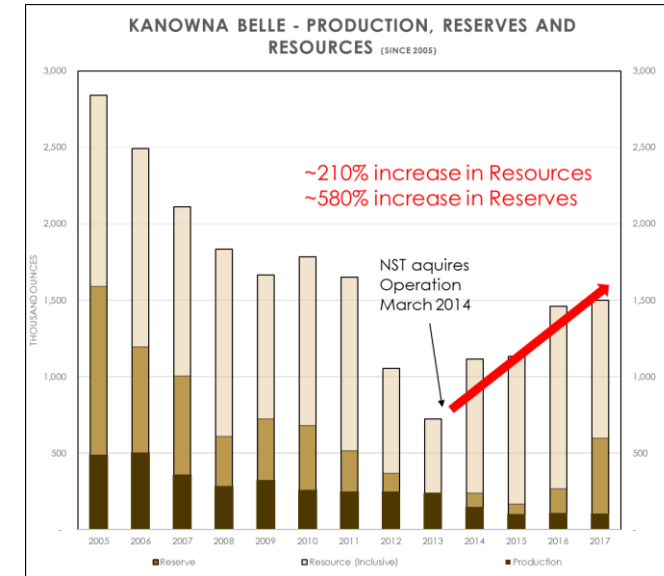
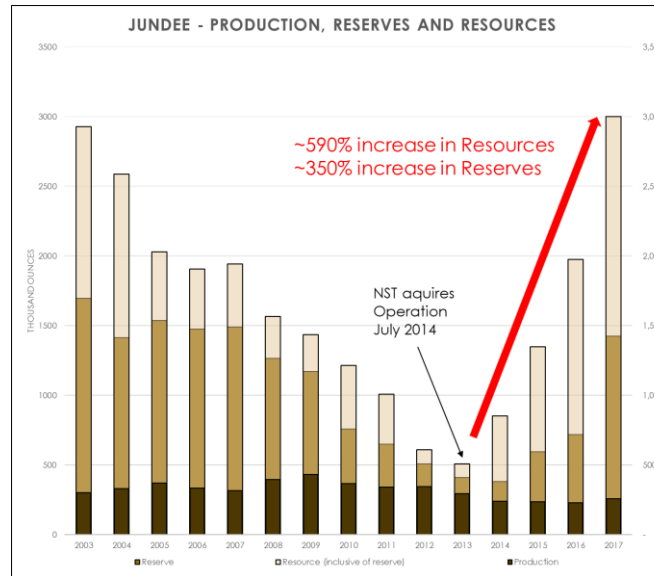
✦ Established in 2010 by our first mine acquisition, NST's operating model targets improved operational performance to deliver significant value for Shareholders through a structured approach in 5 key areas

Initiative	Description
Pay-off Acquisition	<ul style="list-style-type: none"> Maximise operational cashflow to recover acquisition purchase price and strengthen balance sheet for future growth De-risk acquisition exposure, demonstrate to Shareholders financial discipline, establish self-funding assets
Optimise Operations	<ul style="list-style-type: none"> Rationalise and standardise mining fleet, personnel and assets across the Company Increase productivity levels and mining physicals which will improve production profile, project margins and profit.
Extend Mine Life	<ul style="list-style-type: none"> Convert more resources into reserves and extend known resources through targeted drilling Re-evaluate known mineralisation / deposits that are currently not in a resource or reserve category Enable site teams to take calculated risks and test theories/targets
Improve Financial Metrics	<ul style="list-style-type: none"> Review all supply contracts and leverage off combined Company buying power – cost outs Implement strategies to reduce the total site cost per ounce, fixed, variable, dependent and discretionary spend
Upside Opportunities	<ul style="list-style-type: none"> Organically grow production by leveraging off “sunk” capital/infrastructure and mining profitable incremental ounces Evaluate the exploration potential of the highly prospective tenement package, greenfield and brownfields Evaluate nearby tenements and pursue regional consolidation

Rapid Restoration of World Class Tier 1 Assets



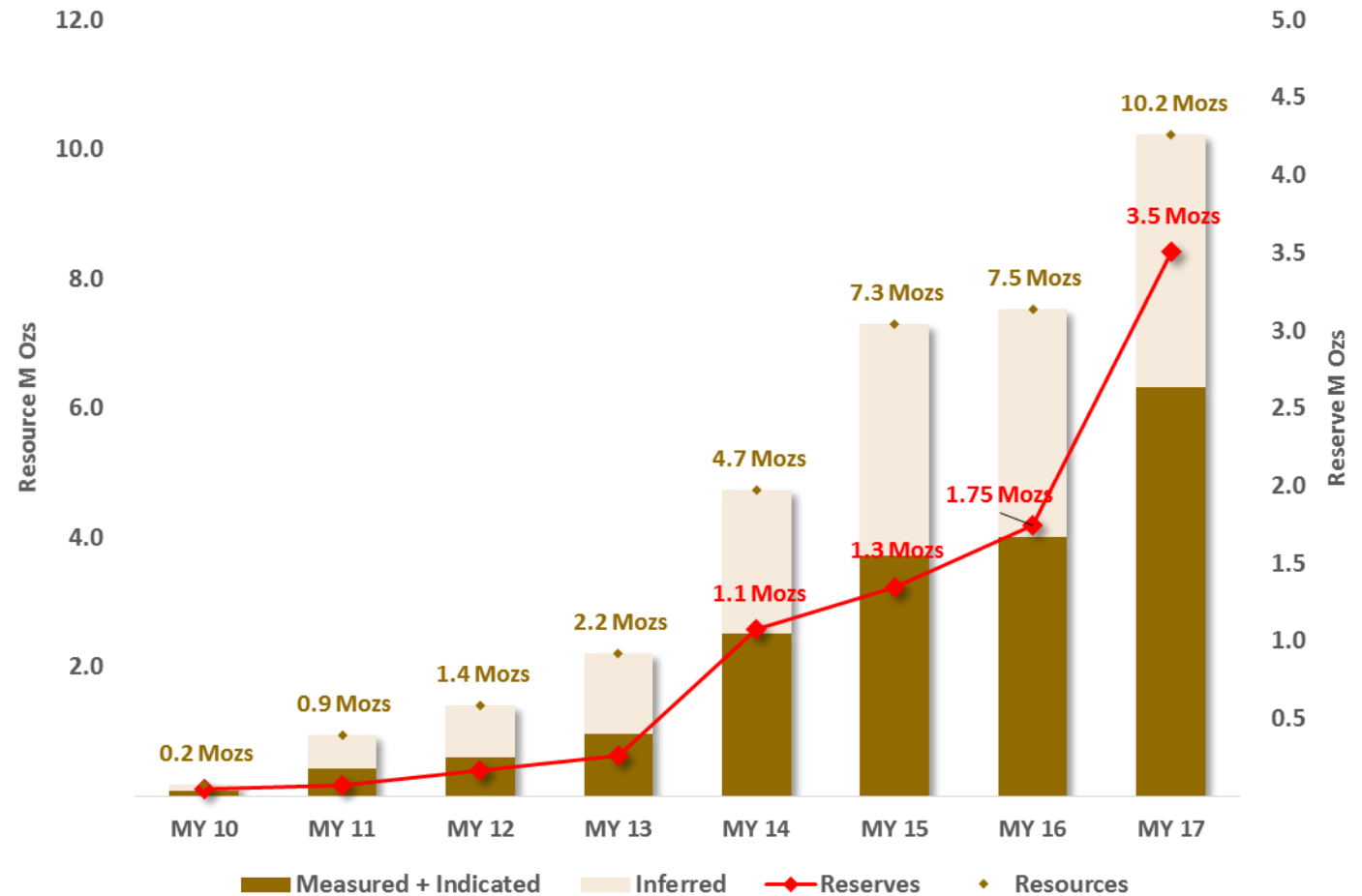
- ✦ We've often stated the constraints to define underground v open pit Resources
- ✦ Our mines have typically held 3 year lives for 20+ years of continuous production
- ✦ To add a year mine life at 300koz to a 10Moz system is 3% of historic production
- ✦ Investors to understand the trade-off of time, cost, technical difficulty to deliver Resource confidence levels
- ✦ Grades and recoveries of assets are very consistent over decades



Consolidation of World Class Gold Camps

- ✦ Total **Reserve** increase by 2.3Moz to **3.5Moz** despite depletion of 546koz in FY17
- ✦ This is a tripling of the Reserve base of 1.2Moz excluding Plutonic divestment
- ✦ Total **Resources** increase by 2.7Moz to **10.2Moz** including a 58% increase in Measured and Indicated Resources to 6.3Moz
- ✦ Only small portion from new discoveries of Amada, Revelation, Velvet, Paradigm, Strzelecki and Raleigh South
- ✦ High confidence of replacing and potentially growing Reserves again next year
- ✦ 10 years of visibility through continued resource conversion

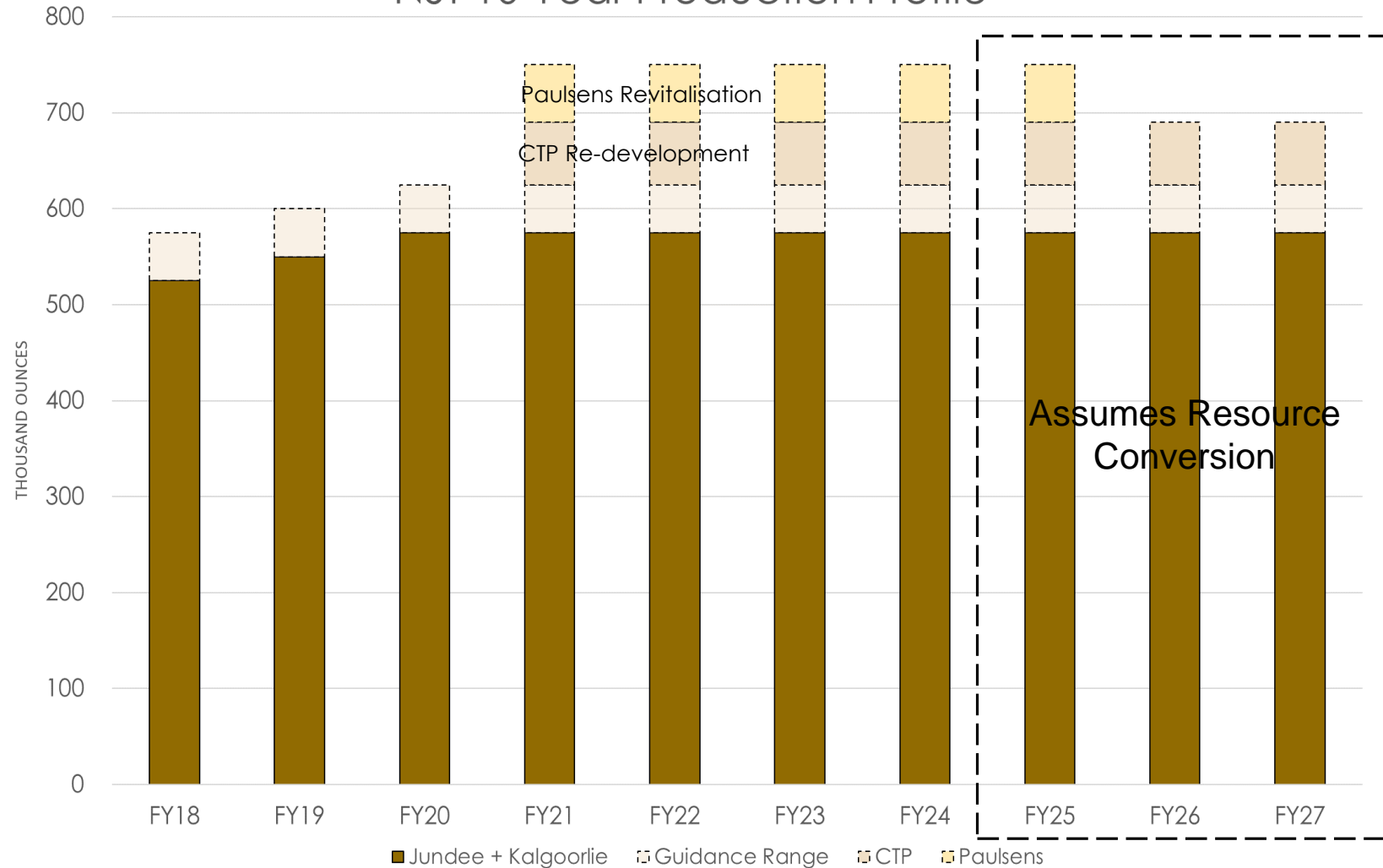
NST Resource and Reserve Growth



Established 10 Year Visibility Platform

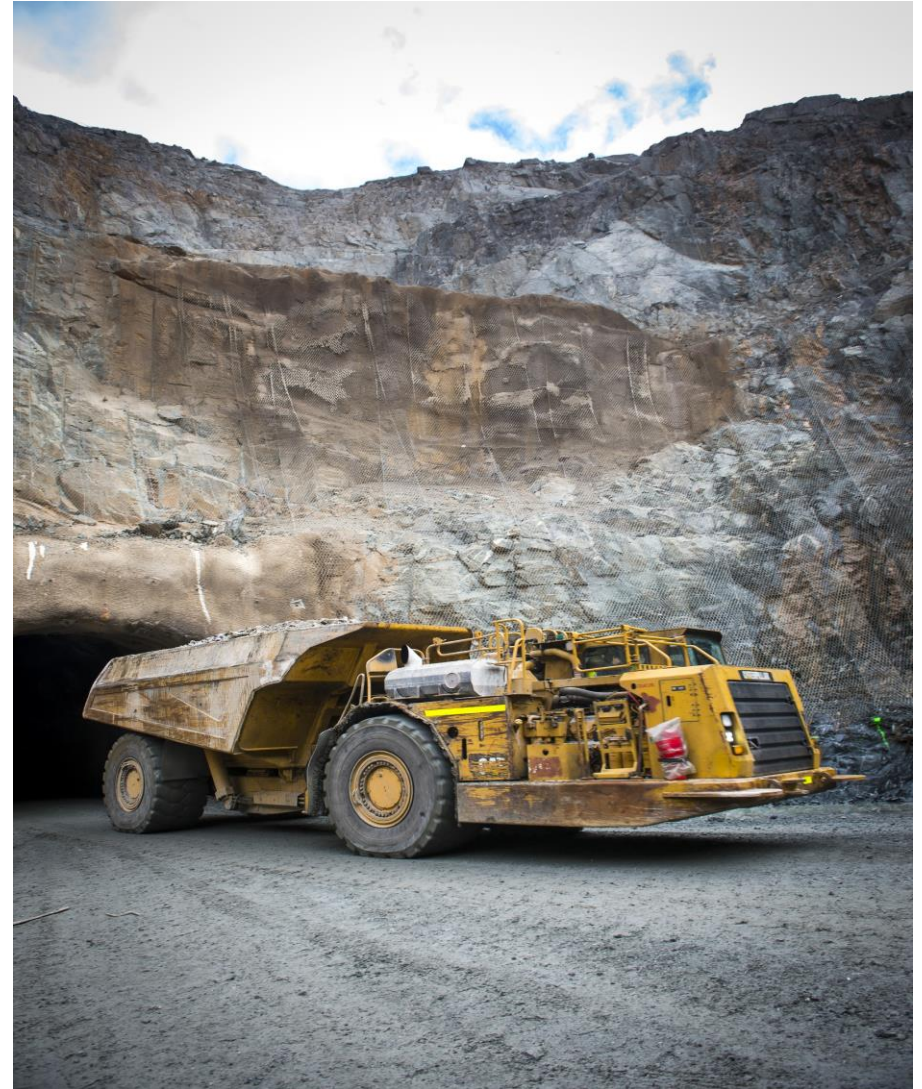
- ✦ Near term production growth to 600kozpa in CY18 from current producing Assets
- ✦ Restored two World Class Tier 1 Assets, Jundee and Kalgoorlie now lifting each centre to ~300,000ozpa
- ✦ Allows for operational simplicity
- ✦ Preserving the Paulsens resource whilst exploration reinvestment commences
- ✦ A development asset in the Tanami region with access to 9,200km² over granted and pending tenure

NST 10 Year Production Profile



A 10 Year mine life visibility to deliver Shareholder Value

- ✦ NST has established an ASX100 business that survives the cycles
 - ✦ *Business plans can be delivered over a wide band of Gold Prices*
 - ✦ *Significant balance sheet strength adds greater security to outcomes*
- ✦ Diversified production sources de-risks variance to planned guidance
 - ✦ *Efficient resource management smooths mine output*
 - ✦ *Large stockpiles offer a buffer between mining and processing*
 - ✦ *Processing upgrades will alleviate Plant throughput limitation*
- ✦ Lowest quartile costs underpin Asset resilience to Gold Price
 - ✦ *Managing to A\$1,000/oz AISC is possible in an underground setting*
 - ✦ *Advanced capital infrastructure creates contingency and optionality*
 - ✦ *Designs ensure Marginal Ore is not sterilised for the future*
- ✦ Cost Base matched to market and appropriately shared risk
 - ✦ *Variable performance based services contracts*
 - ✦ *Employee share ownership aligns success outcomes*
 - ✦ *Gold price modified pay structure – painshare / gainshare*





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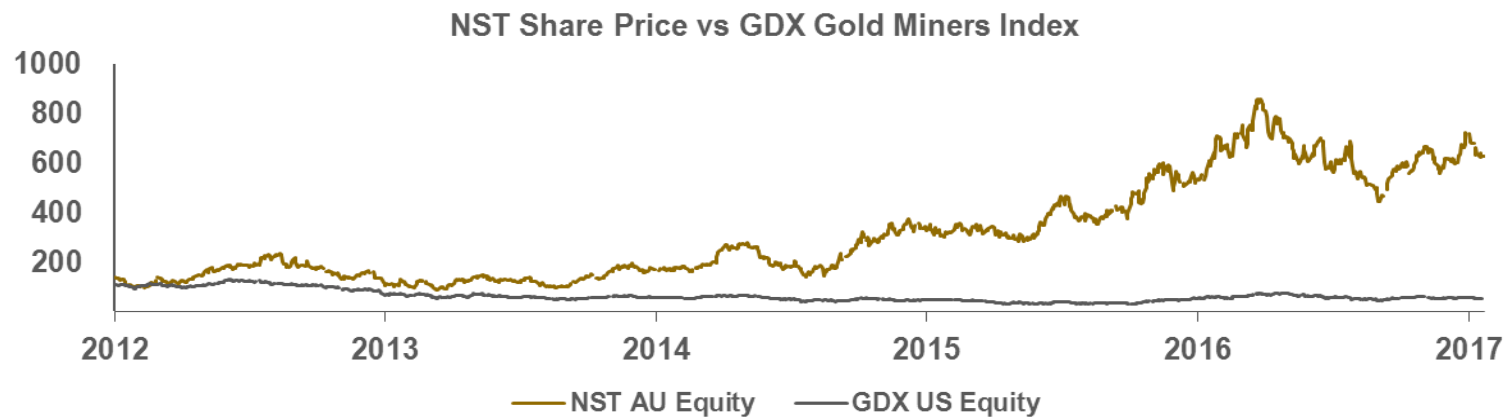


An Australian gold miner – for global investors
Finance Update August 2017

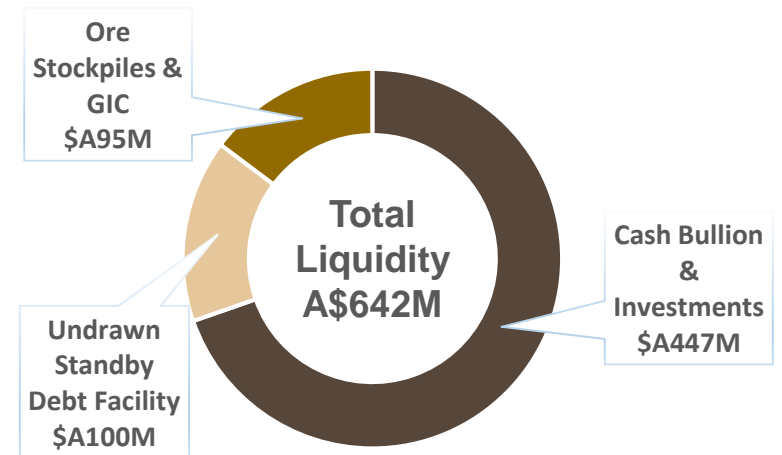
Overview



Stock code (ASX) :	NST
Share price:	A\$4.70
Market capitalisation (600 million shares on issue) :	A\$2.83B (US\$2.15B)
Cash, bullion & investments as at 30 June 2017	A\$447M (US\$340M)
Bank debt	Nil
Enterprise value	A\$2.38B (US\$1.81B)
Hedging as at 30 June 2017	365,000oz at A\$1,747/oz
3 month average daily turnover	~A\$24M
Substantial Shareholders	BlackRock 16.9%
	Van Eck 6.8%



Source: Bloomberg

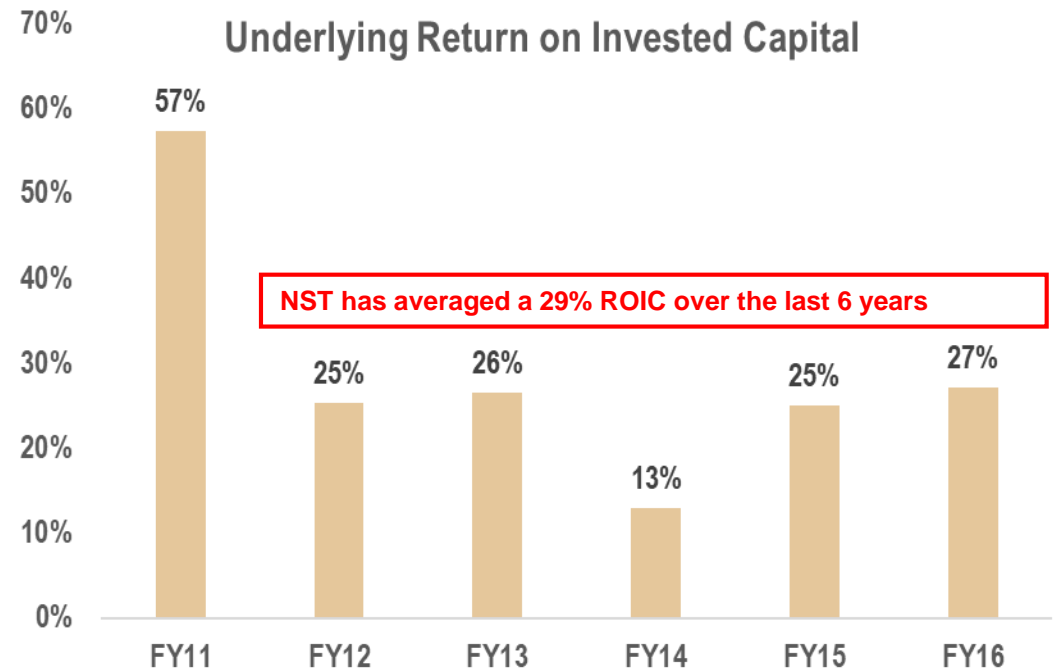


Efficiently allocating capital

- ✦ Superior returns on invested capital will continue to be the focus to drive organic and in-organic investment decisions
- ✦ Projects compete internally for capital funding to continue to generate a sector leading Return on Equity 30% and a Return on Invested Capital of 29% as demonstrated over the last six years



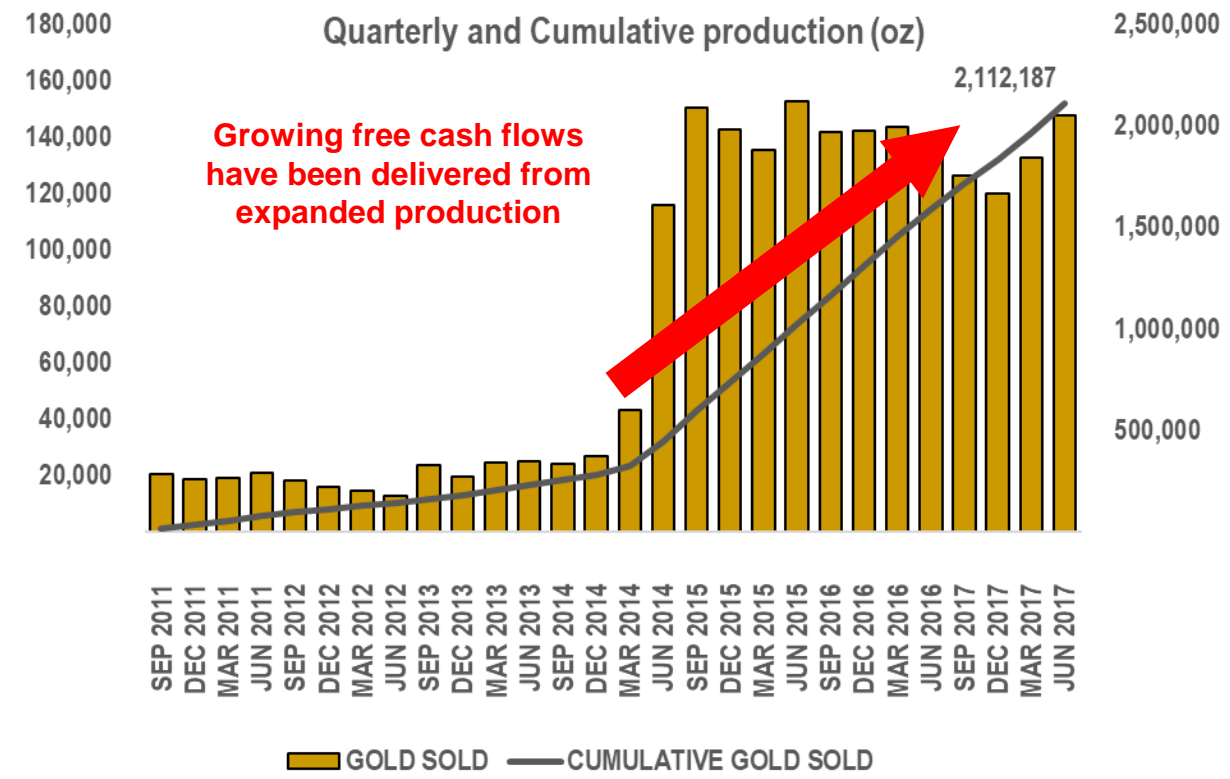
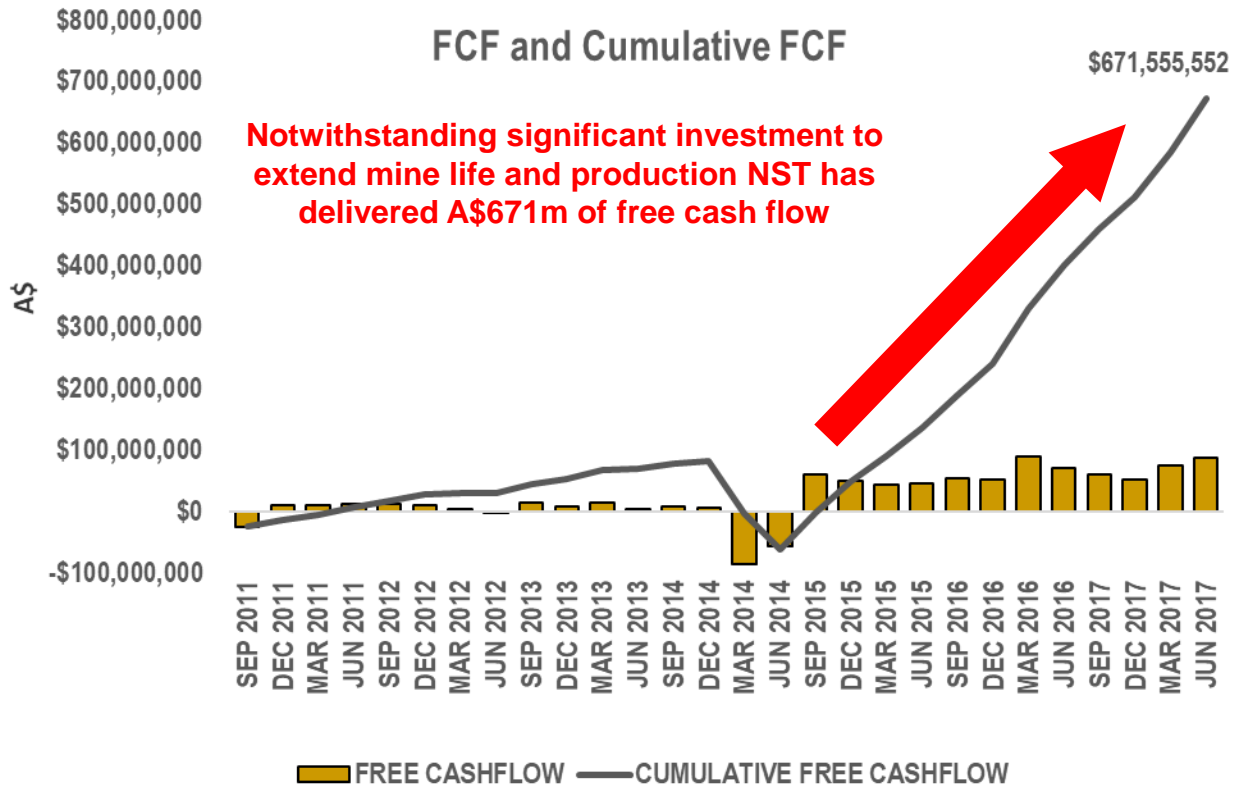
Capital is having to compete internally within the business- this internal competition is driving sector leading ROIC's for NST



Delivering free cash flow



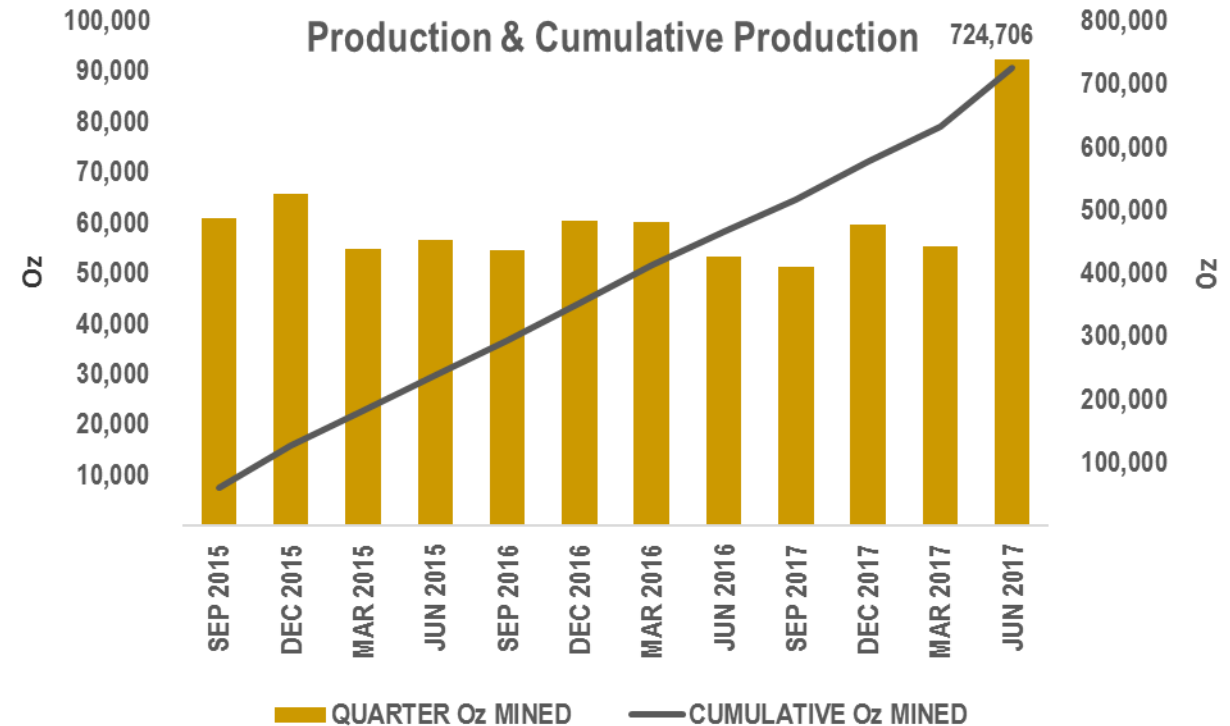
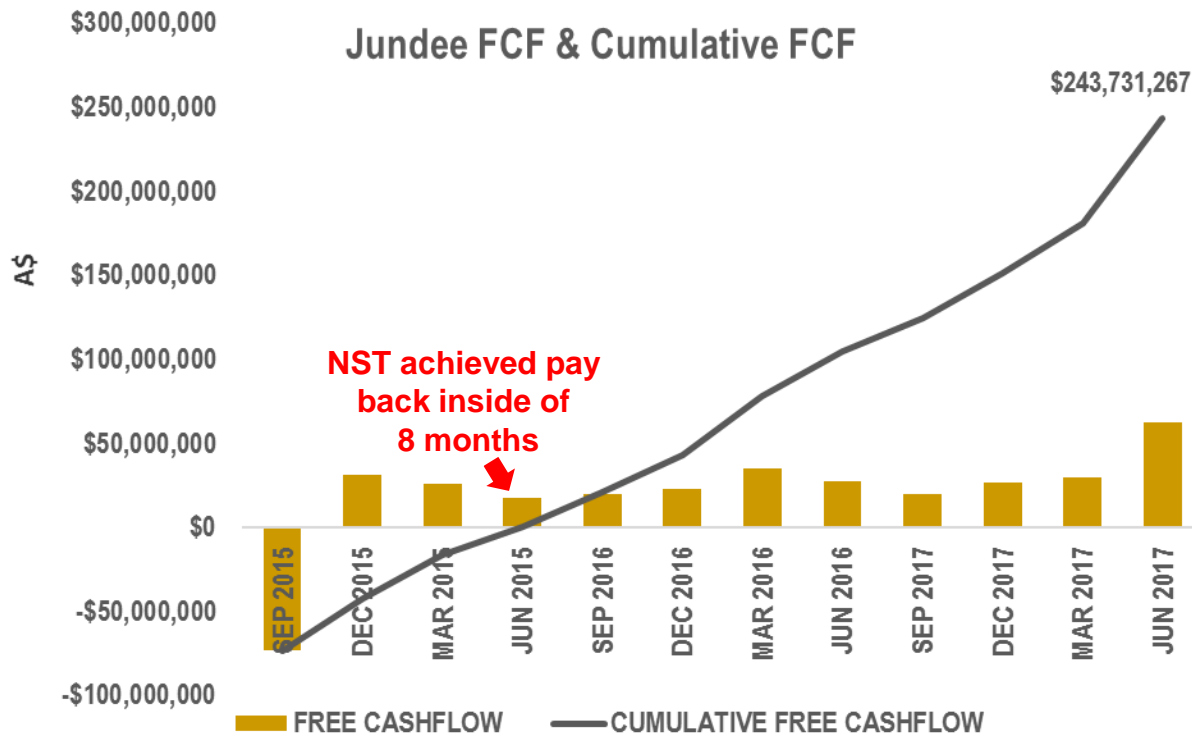
- ✦ To date, after investing into expanding production and mine lives NST has delivered over A\$671M in free cash flow since the acquisition of Paulsens, the Kalgoorlie operations and the Jundee mine
- ✦ After investing, NST has averaged A\$49M of free cashflow across the twelve quarters of the current portfolio of assets
- ✦ Cumulatively the business has sold over 2.1Moz since July 2010



Jundee's financial performance



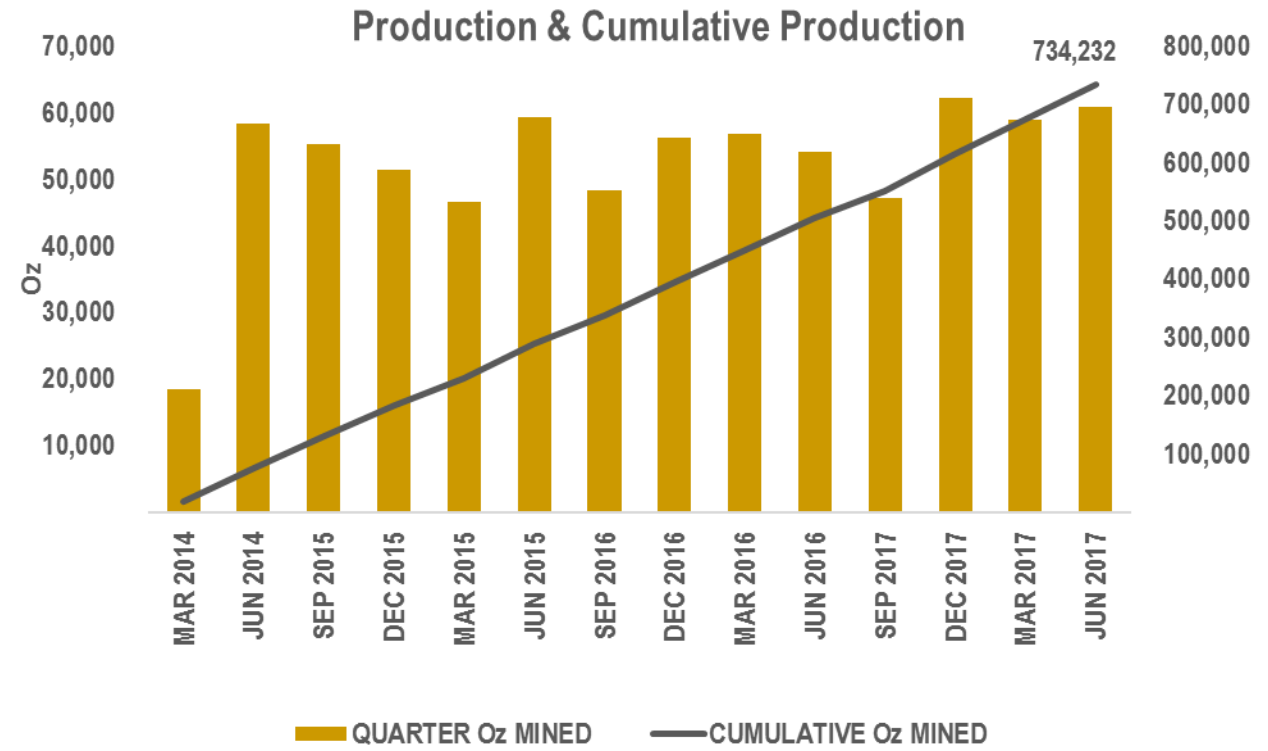
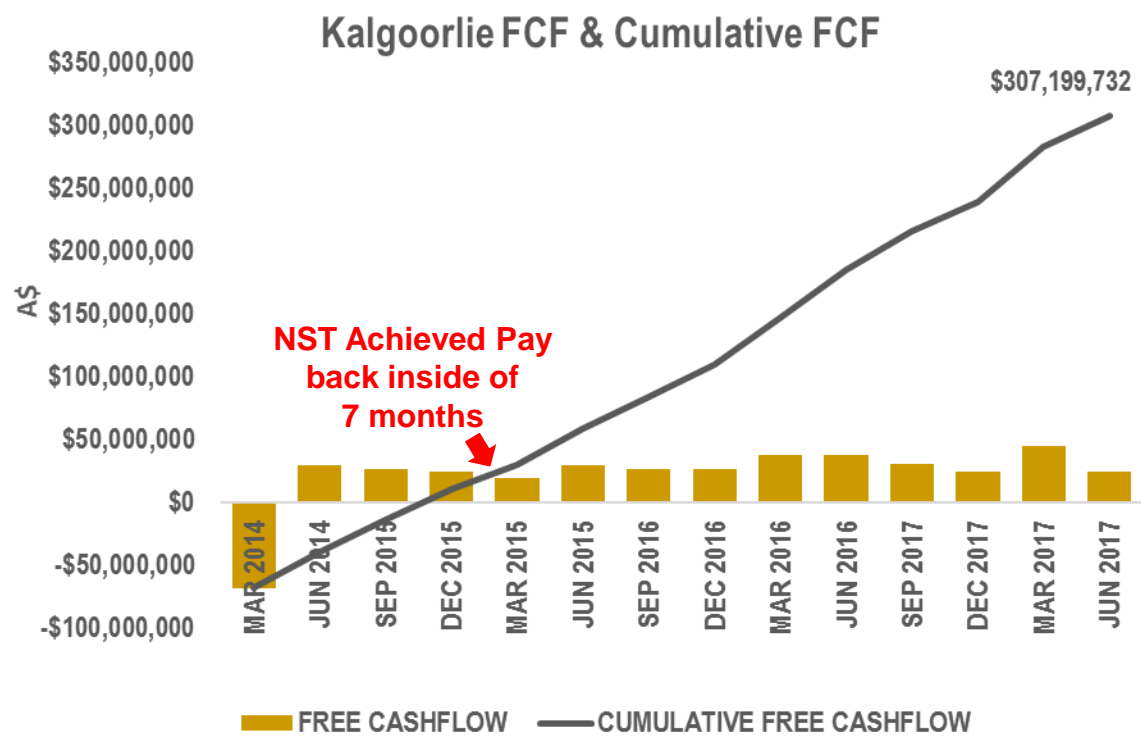
- ✦ The Jundee asset was purchased for a consideration of A\$82.5M
- ✦ To date, the asset has generated an IRR in excess of 150% and produced net free cash flows of over A\$243M
- ✦ Under NST ownership the asset has produced over 724koz at an average AISC of A\$985/oz
- ✦ Jundee is well positioned to continue to generate sector leading returns and extended mine life



Kalgoorlie's financial performance



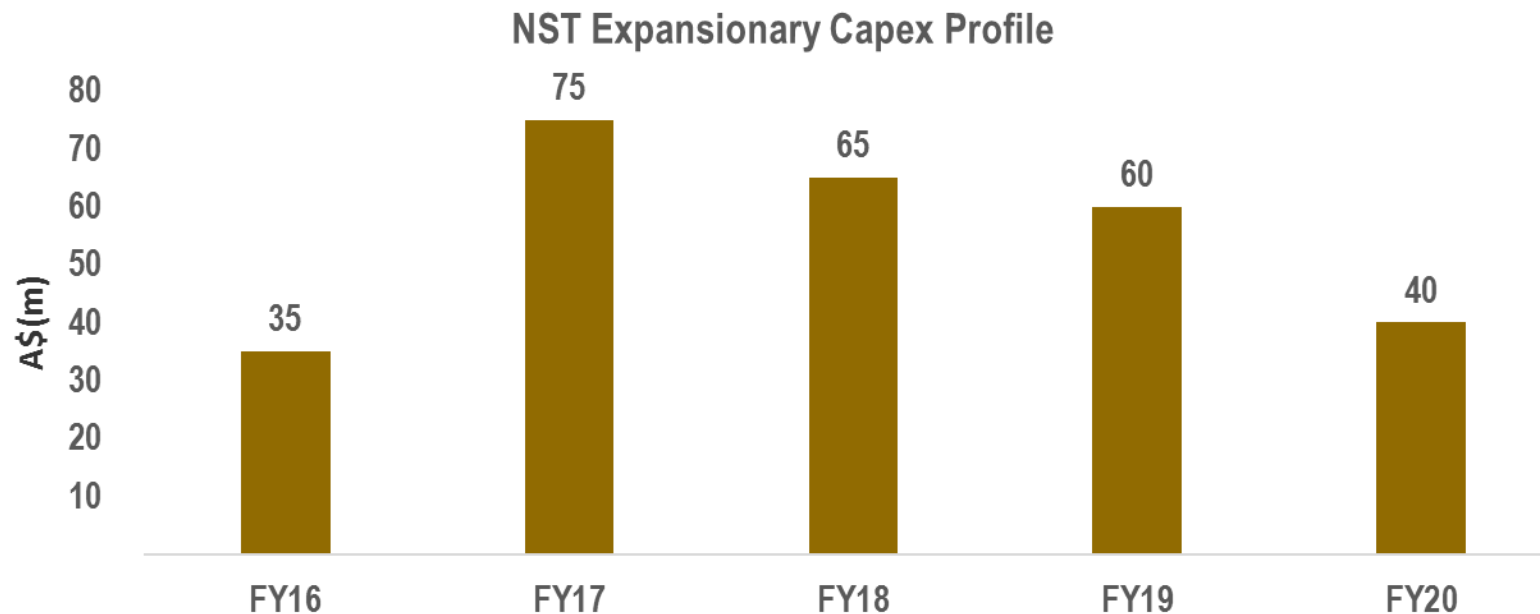
- ✦ The Kalgoorlie asset was purchased for a total consideration of A\$75M
- ✦ To date the asset has generated an IRR in excess of 250% and produced net free cash flows of A\$307M
- ✦ Under NST ownership the asset has produced over 734koz at an average AISC of A\$891/oz
- ✦ Kalgoorlie will continue to generate sector leading returns due to the level of investment that has occurred over the last three years to grow mine life



CAPEX profile

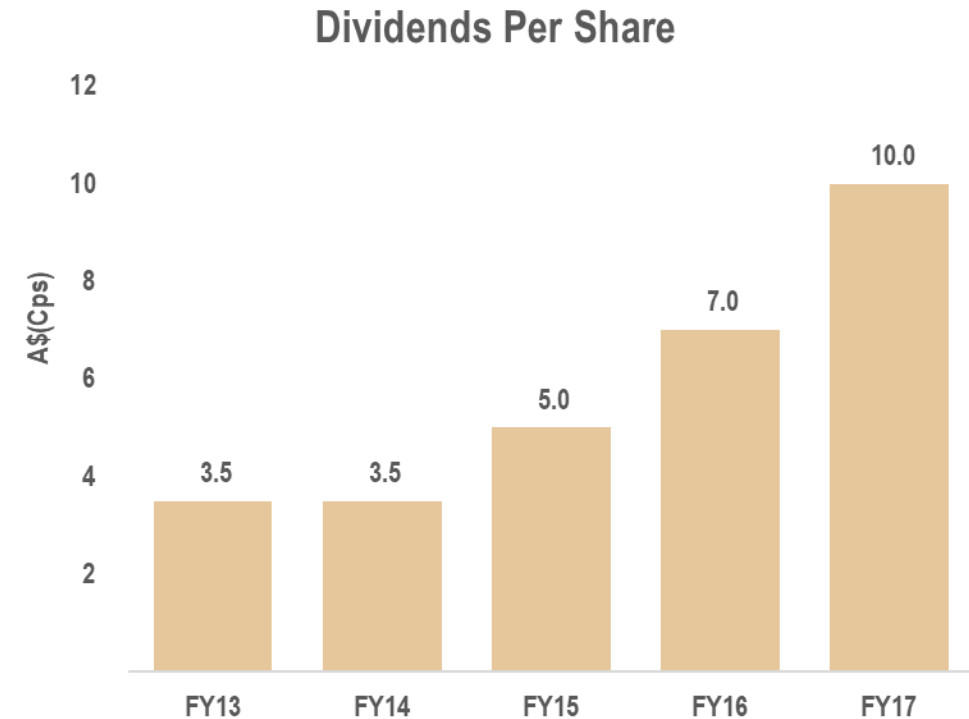
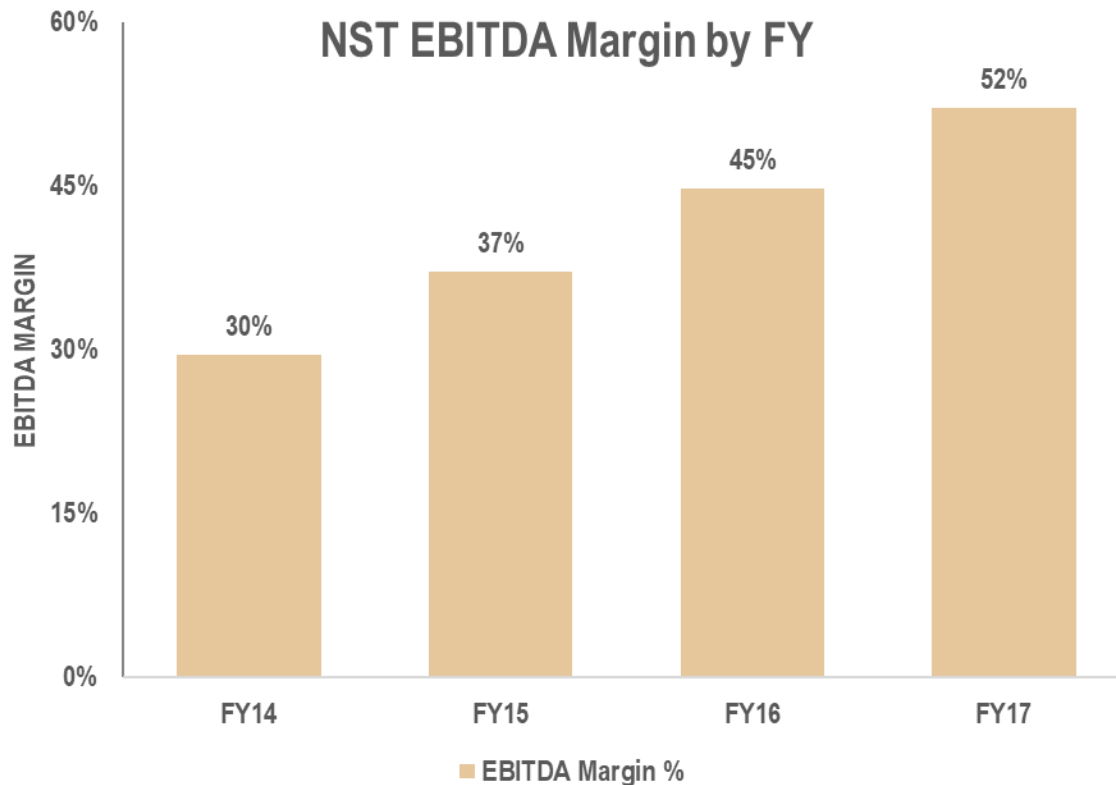


- ✦ Following the acquisitions of assets towards the end of FY14, CAPEX and exploration materially increased as NST invested heavily into growing the production profile and Reserve life of its asset base
- ✦ Exploration expenditure has culminated in the recent announcement of 3.5Moz of Reserves and 10.2Moz of Resources
- ✦ During FY17, NST's CAPEX peaked with the expansion at Jundee and the development of the Millennium mine in Kalgoorlie
- ✦ Expansionary CAPEX is budgeted to reduce in FY18 to A\$65M, A\$60M in FY19 and A\$40M in FY20 which enables to 600,000ozpa run rate to be maintained



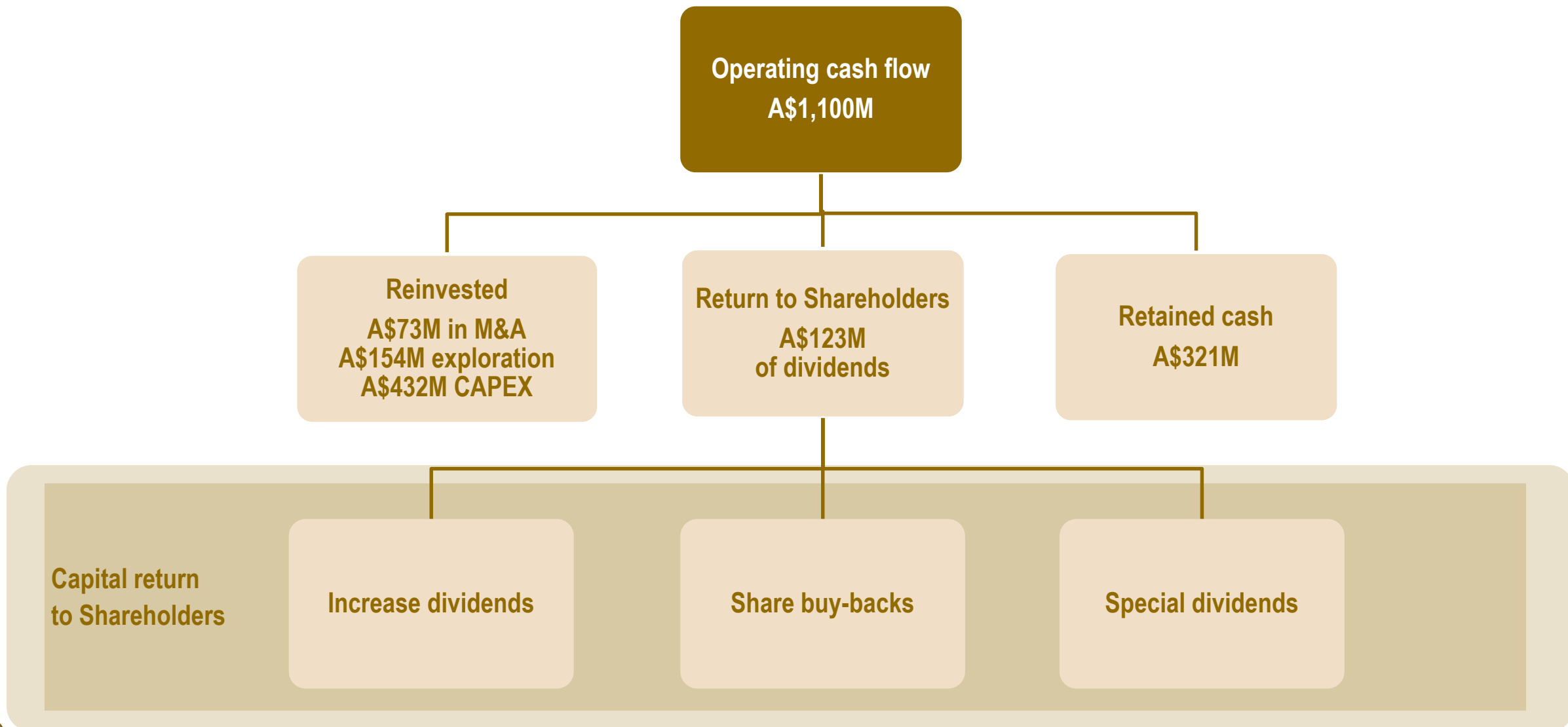
Margin improvement driving Shareholder returns

- ✦ NST's focus on concentrated centres has delivered an increased production profile from our higher margin sites
- ✦ The impact of the concentrated centres strategy can be observed in the increasing EBITDA margin
- ✦ The higher margin continues to drive free cash flow and increased returns (in the form of dividends) to NST's Shareholders



Financial strength driving evolution of capital return strategy

- ✦ NST has grown its operating cashflow and increased returns to Shareholders whilst also executing value adding M&A





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RESOURCES LIMITED

ASX Code: NST



Environmental, Social and Corporate Governance ESG Initiatives - August 2017

Sustainability - What is a sustainable gold producer?

- ✦ Last year NST committed to an integrated reporting pathway for the Company's FY17 Annual Report to highlight the good work that is currently being done in the business and the community
- ✦ At NST we believe operating sustainably with sound business ethics and strong governance ensures long-term success for our Company, our people, the communities in which we operate and the land on which we work
- ✦ NST's sustainability vision:

“Delivering responsible environmental and social business practices that lead to both the creation of strong economic returns for our Shareholders, and shared value for our stakeholders.”
- ✦ NST's sustainability vision aligns with our core values of: **Safety, Teamwork, Accountability, Respect and Results**



Protecting & developing our most important assets - our people

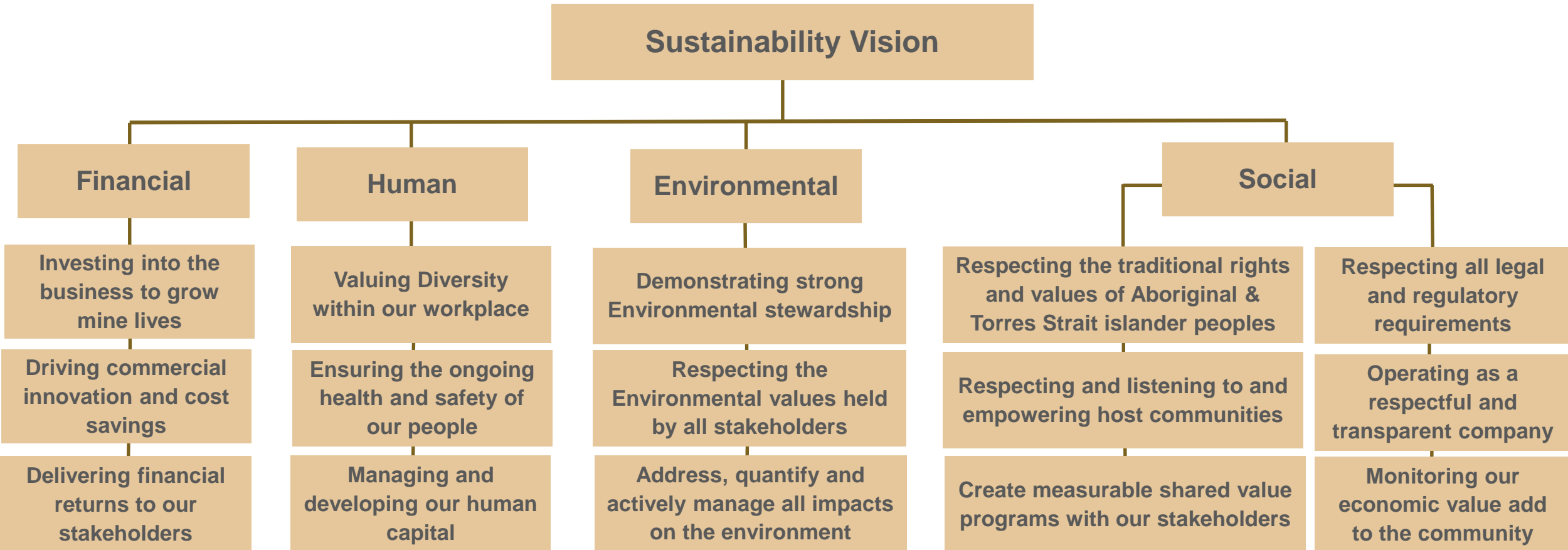
- ✦ Maintaining a safe and healthy workplace is vital to the running of an efficient and sustainable business for the long term
 - ✦ *The safety and well-being of our employees, contractors and broader stakeholders is front of mind at all times*
- ✦ NST has recently embarked on a series of initiatives to help develop the potential within the organisation and our employees
 - ✦ *Employee Healthy Lifestyle program commencing in Jan 2018*
 - ✦ *Leadership Development Program commenced July 2017*
 - ✦ *Manual tasking and Musculoskeletal Health project commencing in August 2017*
- ✦ NST is also the largest employer of mining graduates from the Western Australia School of Mines
 - ✦ *NST offers a 2 year graduate program to mining graduates*



Sustainability - What is a sustainable gold producer



- ✦ At NST we believe our sustainability vision aligns with our ESG goals that will create long-term value for all Stakeholders
- ✦ NST's approach to sustainability seeks to address sustainability across Financial, Human, Environmental and Social Capital components of the business



NST's Economic Value Add and Community Investment

- ✦ NST delivered over A\$718M of economic value add directly into the Australian economy in FY2016
- ✦ NST has a raft of proposed community investments in FY2018 as the business aims to continue its commitment to the communities in which the business operates in

PROPOSED CORPORATE COMMUNITY INVESTMENT FRAMEWORK FY2018

COMMUNITY	HEALTH & WELLNESS	ENVIRONMENT	INDIGENOUS ADVANCEMENT	EDUCATION & DEVELOPMENT	EMPLOYEE INITIATIVES
					
Local initiatives (including community functions, sports, recreation, arts, etc)	Community health and wellness initiatives	Strategic Corporate or Site initiatives (federal or local)	Development of Indigenous business and cultural initiatives	Education and diversity related initiatives	Employee nominated causes or fundraising activities



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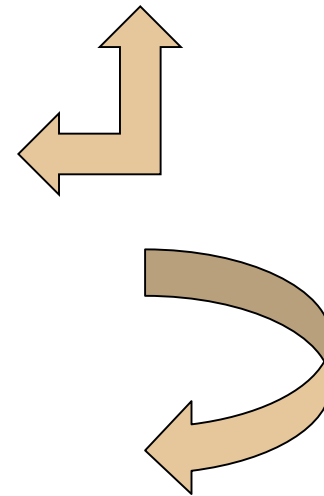
ASX Code: NST



Martu Ranger Partnership

Developing a Fee For Service Framework - August 2017

Sustainability Vision: Delivering responsible environmental and social business practices that lead to both the creation of strong economic returns for our Shareholders, and shared value for our stakeholders



SHARED VALUE CONCEPT

- ✦ Resource sector CSR has and continues to evolve from cost-plus reactionary benevolence, to strategic initiatives that deliver a direct return on investment for all stakeholders.
 - ✦ *Bringing social responsibility from a cost of compliance at the periphery, to a competitive advantage at the core*
 - ✦ *Overcoming the normalised notion that to in order to provide social benefits, companies must temper their economic success*
 - ✦ *Identifying business opportunities from social problems*

Problem: Local Aboriginal Employment



- ✦ Significant misalignment between Indigenous peoples aspirations and mainstream industry opportunities often result in underwhelming outcomes for both sides.
- ✦ This is especially true in remote regions – where we operate.
- ✦ Martu were working, we just needed to identify a point of shared value



Land management, caring for country, biodiversity



Development of a Fee For Service Land Management Framework

- * One week per month, ten months per year
- * Draws from broader pool of Martu Rangers
- * Supports Martu cultural obligations
- * Commensurate with other Martu workspaces
- * Environmental compliance works

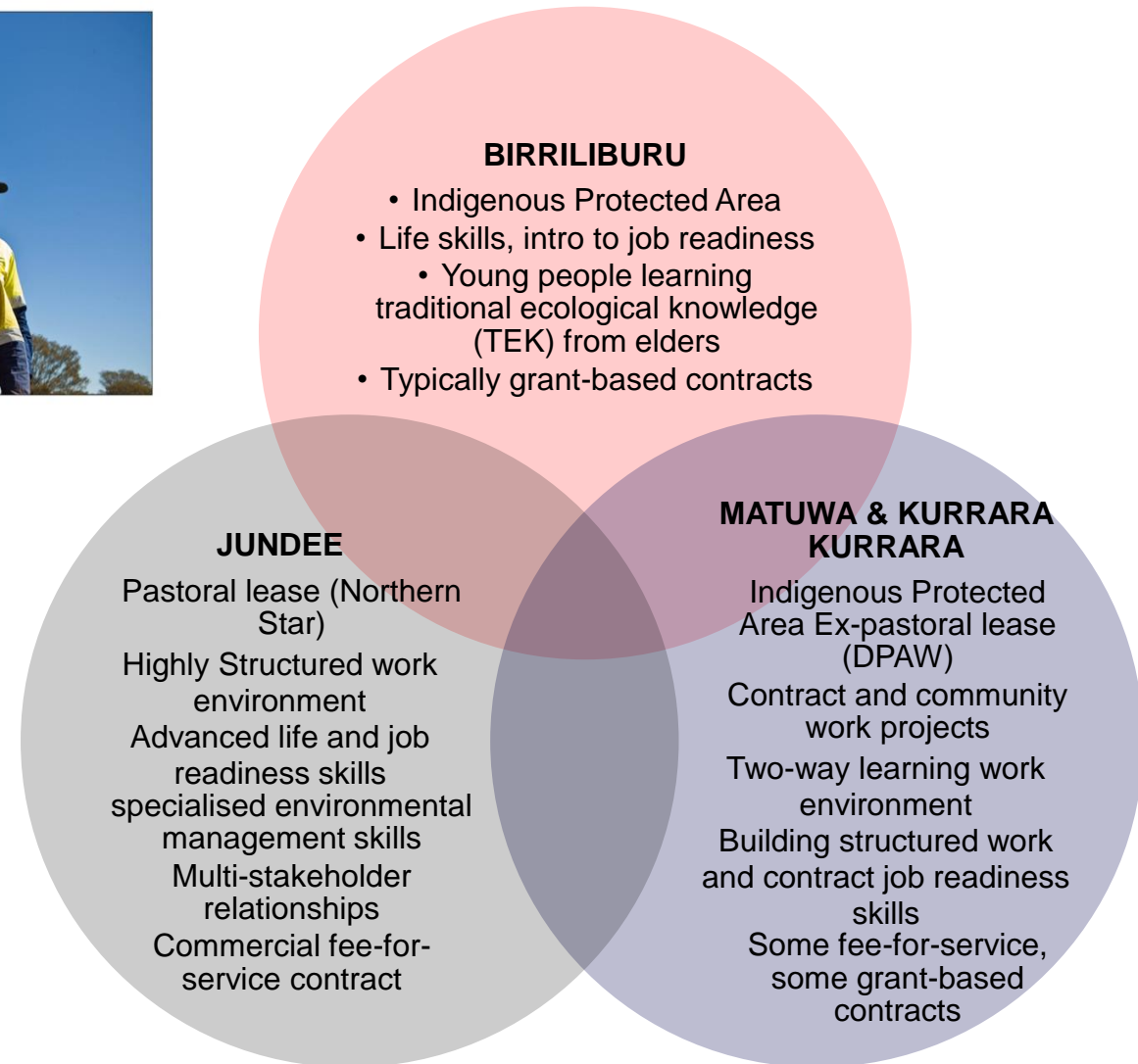
- * *Rehabilitation & audits*
- * *Fire management*
- * *Invasive species monitoring & control*
- * *Biodiversity audits/compliance*
- * *Threatened species management*
- * *Groundwater monitoring*
- * *Materials recycling*

- * Professional contract = professional expectations around service delivery

- * *Fitness for work obligations*
- * *Working schedule, start times, safety tools*
- * *Contract performance monitoring*



Wiluna Martu Rangers at Jundee



Evolution into Pastoral Management Project

- ✦ Increasing Biodiversity Values On Pastoral And Mining Held Land
- ✦ Develop and action a **Biodiversity Management Plan** on the Jundee pastoral lease
- ✦ One **week per month**, pool of **15 Martu** (gender equality)

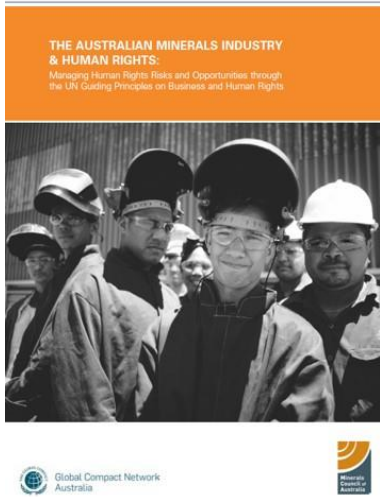


Wiluna Martu Rangers conducting erosion work with pastoralists on Jundee Station

Industry & Gov
Co-investment



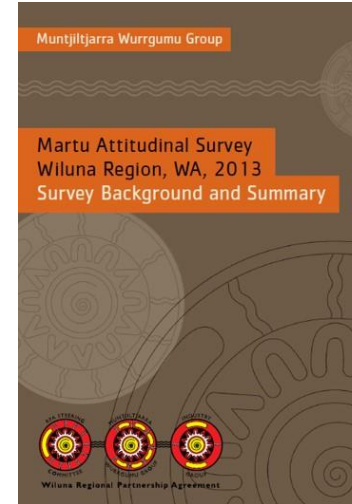
Positive External Program Evaluation



UN HR Best
Practice 2013



2013 Finalist



Participatory Evaluation
2014

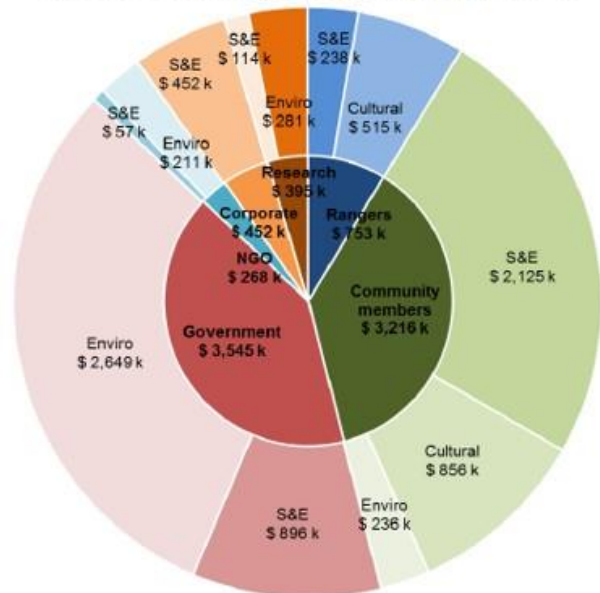


2017 Finalist

Other Shared Value Outputs?

- ✦ Participated in Dept. of the Prime Minister & Cabinet's Social Return On Investment Analysis that concluded a **2.3/1 SROI** for Ranger programs (Social Ventures Australia 2016)
- ✦ Signed a research agreement with Ninti One's Interplay Project to case-study the Rangers

Value of social, economic, cultural and environmental outcomes created by stakeholder group, FY11-15

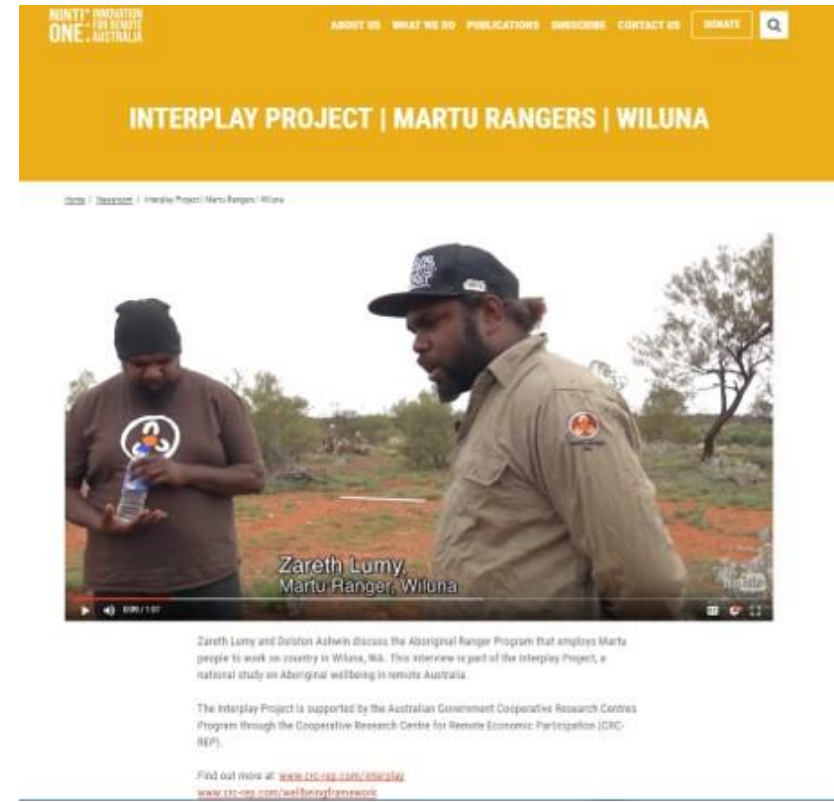


Social Return on Investment

The Birnilburu & MKK IPAs delivered an SROI ratio of 2.3:1 based on the investment in operations between FY11-15.

That is, for every \$1 invested, approximately \$2.3 of social, economic, cultural and environmental value has been created for stakeholders.

Key:
 S&E: Social and Economic Outcomes
 Cultural: Cultural Outcomes
 Enviro: Environmental Outcomes



Political Engagement and Support



- ✦ 2016: NST – Central Tanami Project, Lajamanu Rangers and Central Land Council
 - ✦ *Ongoing compliance water monitoring, biodiversity management*
 - ✦ *Only Industry engagement for group*
- ✦ 2017: NST – Kal Ops, Goldfields Land Sea Council Rangers
 - ✦ *Pilot project scheduled for August, with commitment to support ongoing contracting arrangements*
 - ✦ *Only Industry engagement for group to date*
- ✦ 2017: NST – Paulsens, PKKP Aboriginal Corporation
 - ✦ *Early stage mapping of project development, committed to unpacking the model to PKKPAC*
 - ✦ *Ranger exchange between PKKP and Wiluna Martu, linking them into our networks*



North Tanami rangers Dione Kelly, Helen Wilson (obscured) and Zindzi Jigili, take part in water monitoring training at Northern Star's Tanami Project, 2016

Sustainability Vision: Delivering responsible environmental and social business practices that lead to both the creation of strong economic returns for our Shareholders, and shared value for our stakeholders



Celebrating the signing of a voluntary MOU between NST and the Wiluna Martu, 2015



“NST is indebted to the Wiluna Martu for their trust and support in developing the Ranger FFS Model that is now being used to the benefit of other Aboriginal groups and industry representatives across Australia”



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Strategy Day – August 2017 Asset Overview



- ✦ **Establish Concentrated Centres, grow Resource and Reserves**
- ✦ FY17 - Repositioned business into concentrated production centres
 - ✦ *Jundee*
 - ✦ *Kalgoorlie; Kanowna (100% NST), Kundana (100% NST), EKJV (51% NST)*
- ✦ Investing in exploration to drive long term production growth
 - ✦ *Paulsens (FY18 drilling campaign)*
 - ✦ *Central Tanami*
- ✦ Incorporate regional targets into mine plans; leverage off established infrastructure
 - ✦ *Greater Kalgoorlie 100% ground*
 - ✦ *Tanami surrounds*
- ✦ Concentrated Centres; with significant Reserves and Resource bases now established, focus shifted to enhancing the Tier 1 assets' (Kalgoorlie and Jundee) world class status. Not only demonstrating long term sustainable production, **but production growth as well.**

JUNDEE

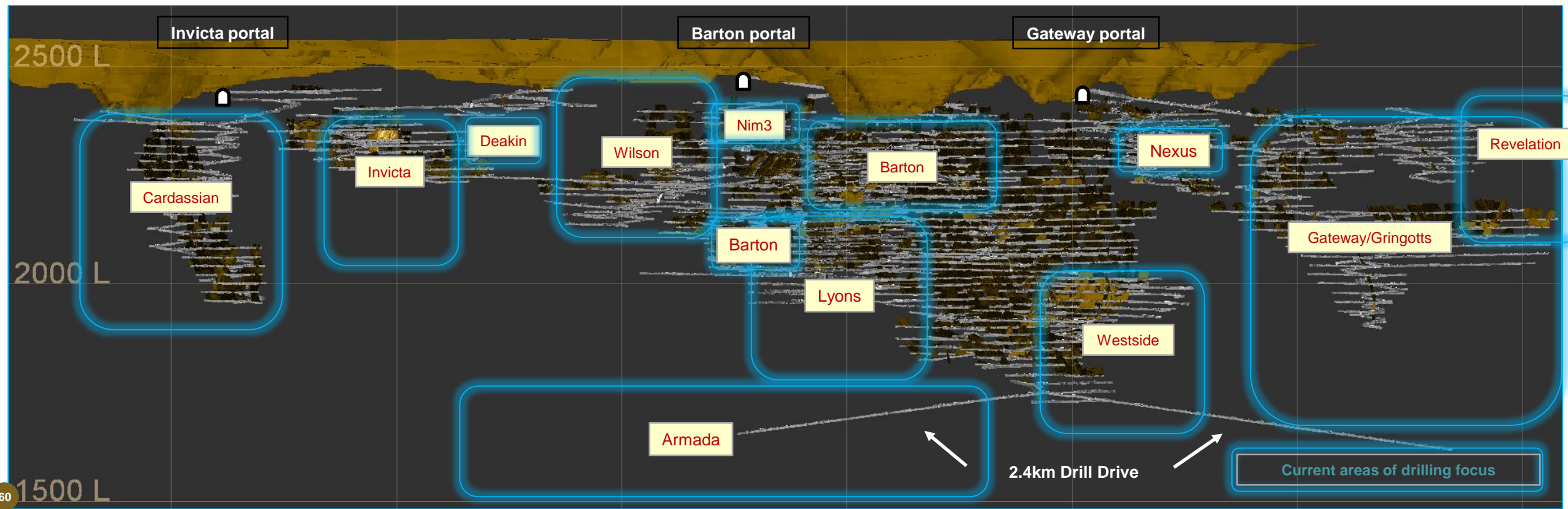
FY2017 233,556oz @ A\$948/oz

FY2018 245,00-265,000oz @ A\$950-1,000/oz

CY2019 onwards 275,000-300,000ozpa

Jundee: World-class asset, production and Resource life set to grow

- * 7Moz of continuous gold production over the past 22 years, average of 320kozpa with a peak year of 410koz
- * FY17 Resource of 3.2Moz up 155% and Reserve of ~1.45Moz up 100% after mine depletion of 259koz; 10-year visibility
- * **Our objective is to return Jundee to a 300koz pa operation within 24 months**
- * Significant opportunities to achieve this increased production via expanded mill capacity, bringing recent underground discoveries into production and developing satellite open pits

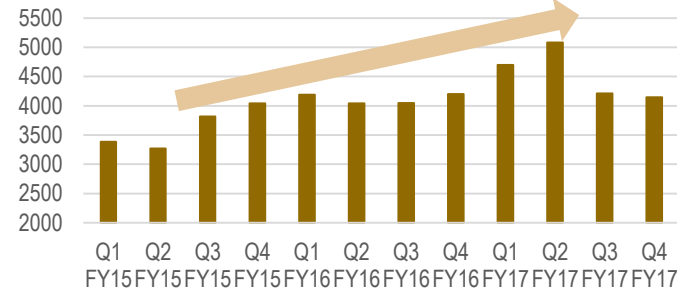


FY2017: A Year of Records for NST

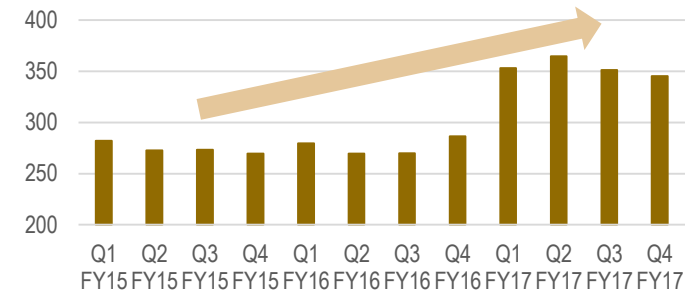


- ✦ 0 LTIs / Least Recordable Injuries
- ✦ Total development metres (18,140m)
- ✦ Development metres per jumbo (361m)
- ✦ Total stope tonnes mined (921,500t)
- ✦ Total ore tonnes mined (1.48Mt)
- ✦ Total hard rock tonnes milled (1.45Mt)
- ✦ Total ounces produced in a quarter (84Koz)
- ✦ Total diamond drill metres (258,800m)
- ✦ Total Reserves / Resources

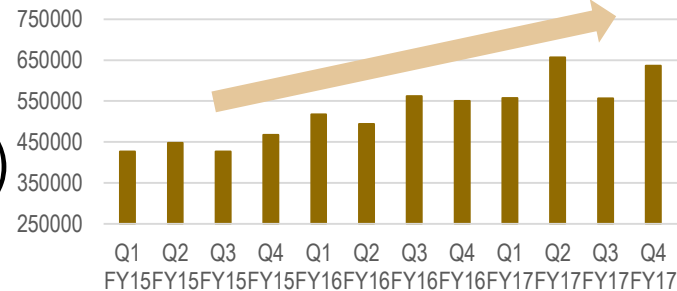
Jumbo Development Metres



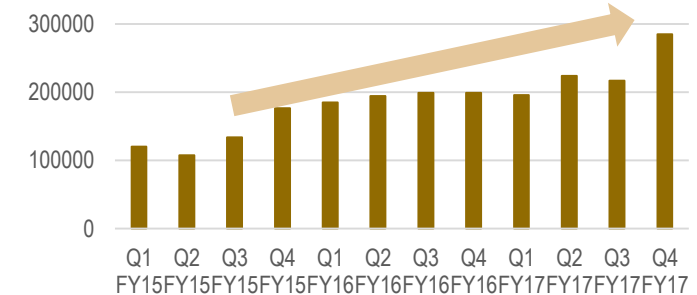
Average Metres Per Jumbo Per Month



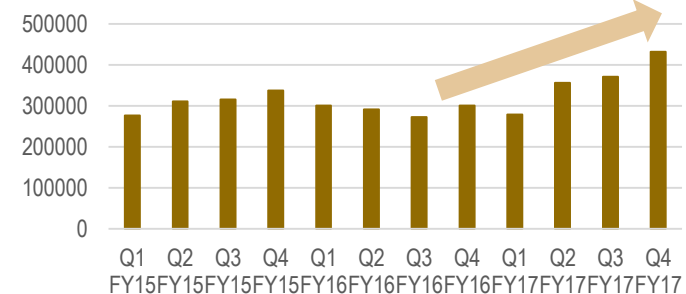
Total Material Movement (t)



Stope Tonnes Mined

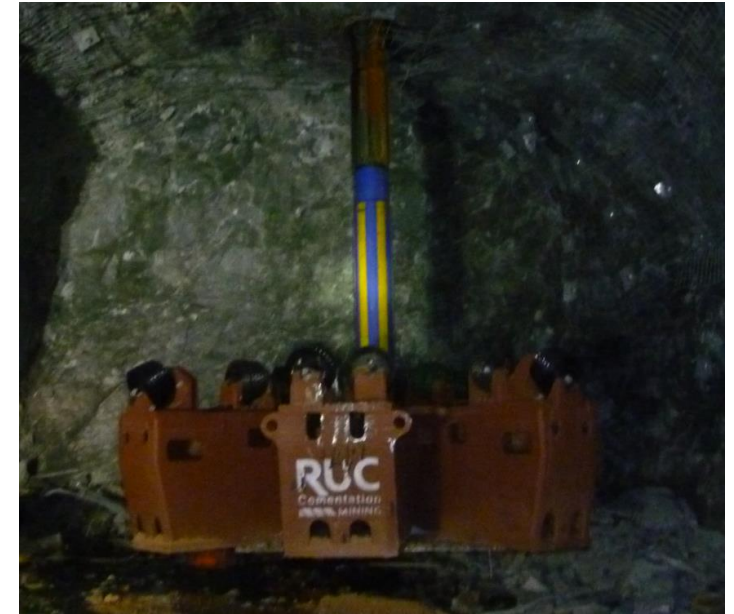


UG Tonnes Processed



- ✦ Armada and Revelation access drives
- ✦ Ventilation Infrastructure in place for Nexus, Wilson and Armada
 - ✦ Raisebore ventilation rises completed
 - ✦ Primary fan arrangements procured
- ✦ Process plant upgrade – crushing and gravity upgrades commenced
- ✦ Tailings dam lift
- ✦ New 18MW gas-fired power station constructed
- ✦ Byrnescut upgraded underground mobile fleet

- ✦ **Set up for sustainable production growth by opening new production fronts at Armada and Revelation, increasing mill throughput and having the right equipment to match the higher productivity levels**

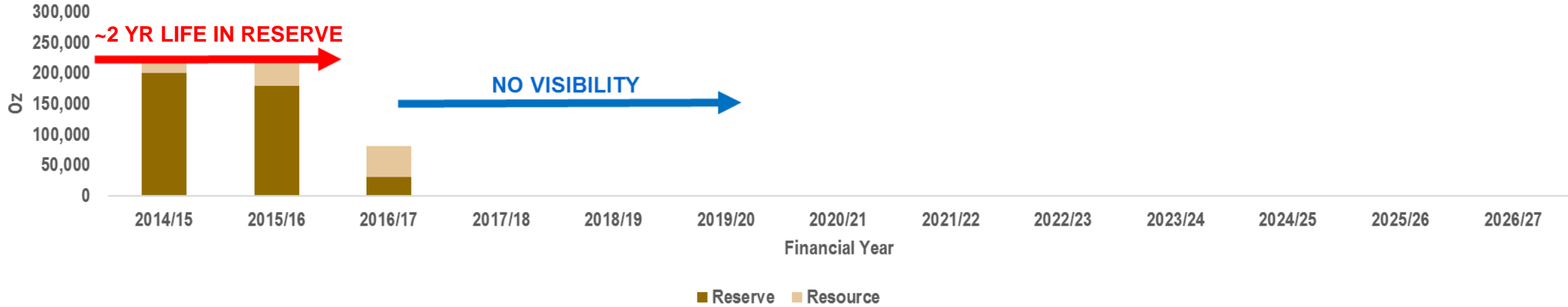


Jundee Mining Plan: Then to Now

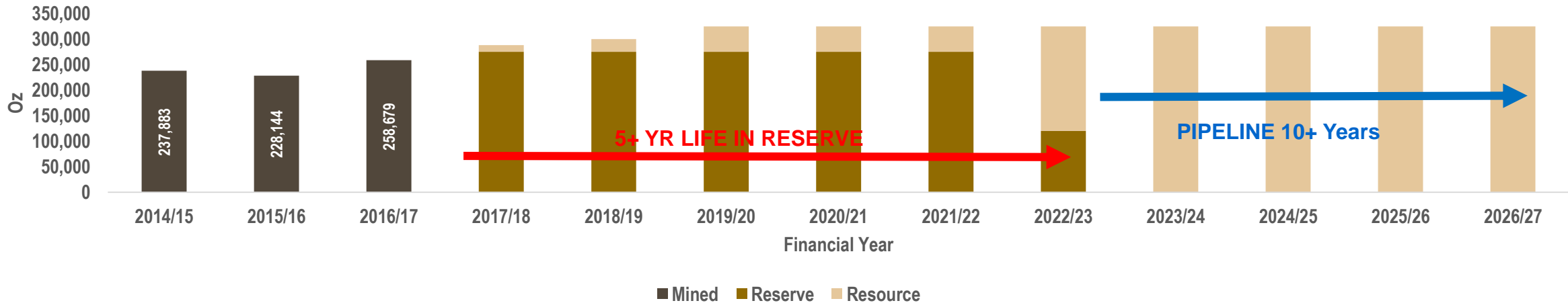


✦ NST has been able to generate value for Shareholders by extending mine life through investing in exploration

July 2014 Mining Plan – Pre-NST



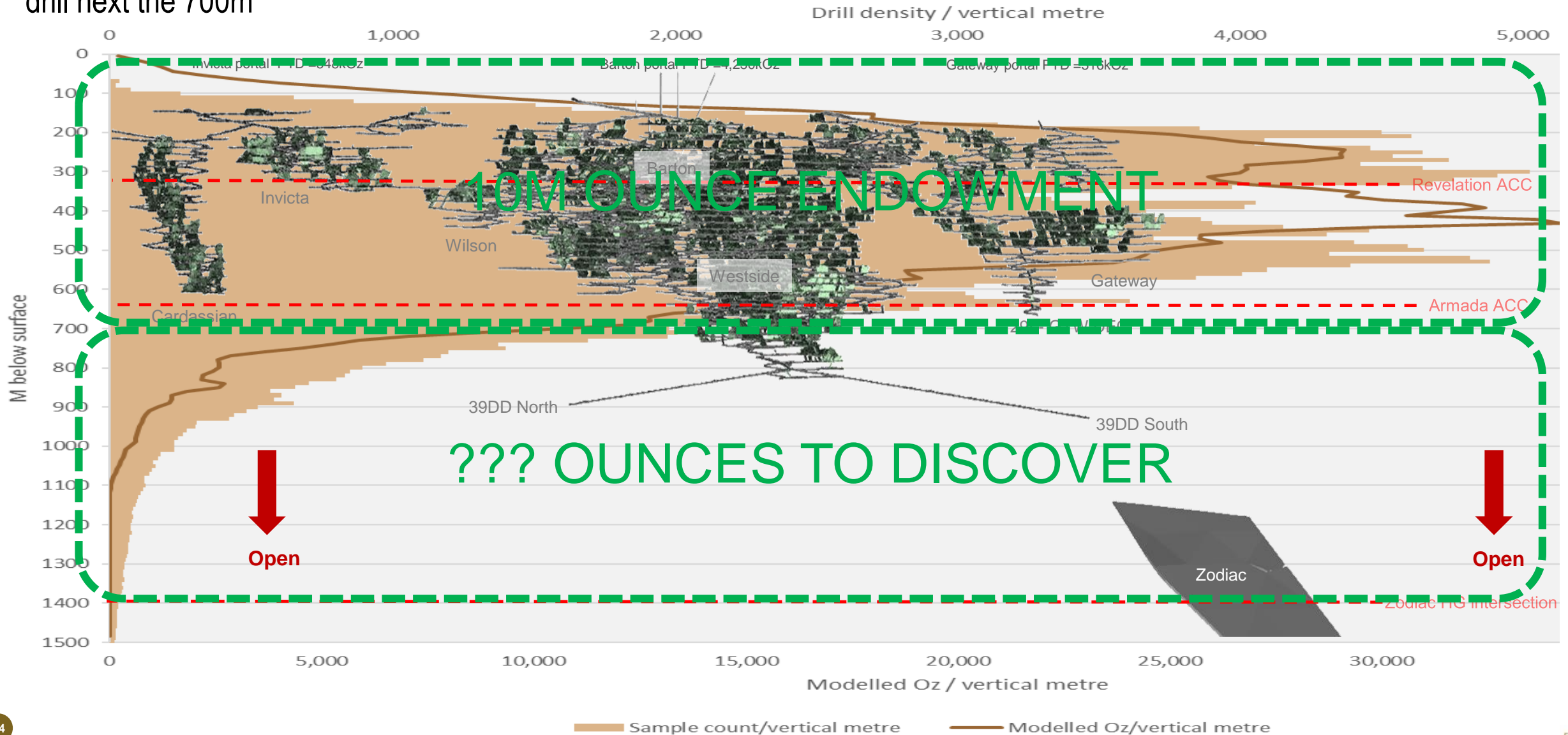
July 2017 Mining Plan



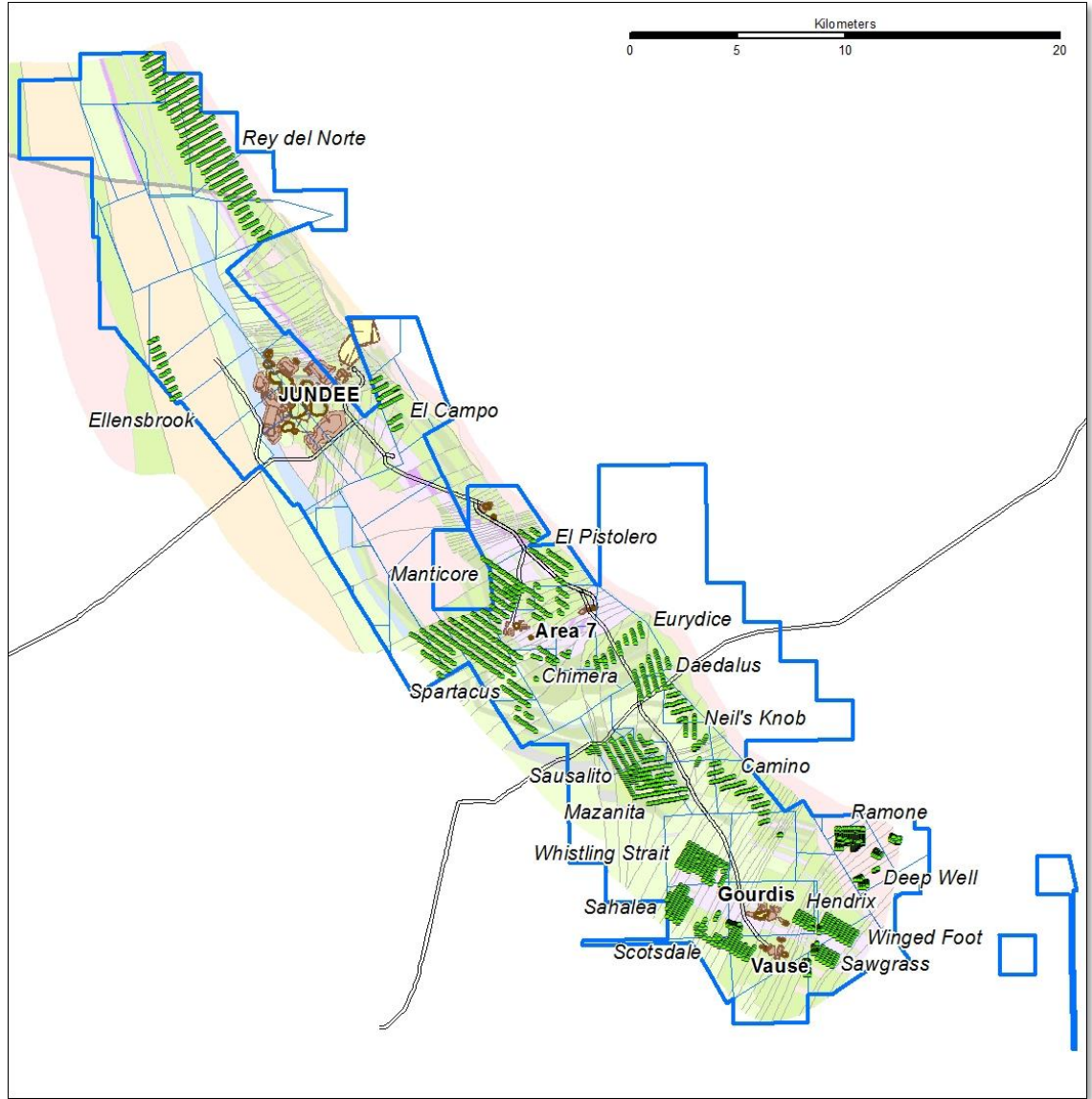
Jundee Depth of activity - remains open at depth



✦ Historical mining and drilling activity has focused above 700m below surface and defined 10Moz. Platform now exists to drill next the 700m



Near-mine open pit production potential

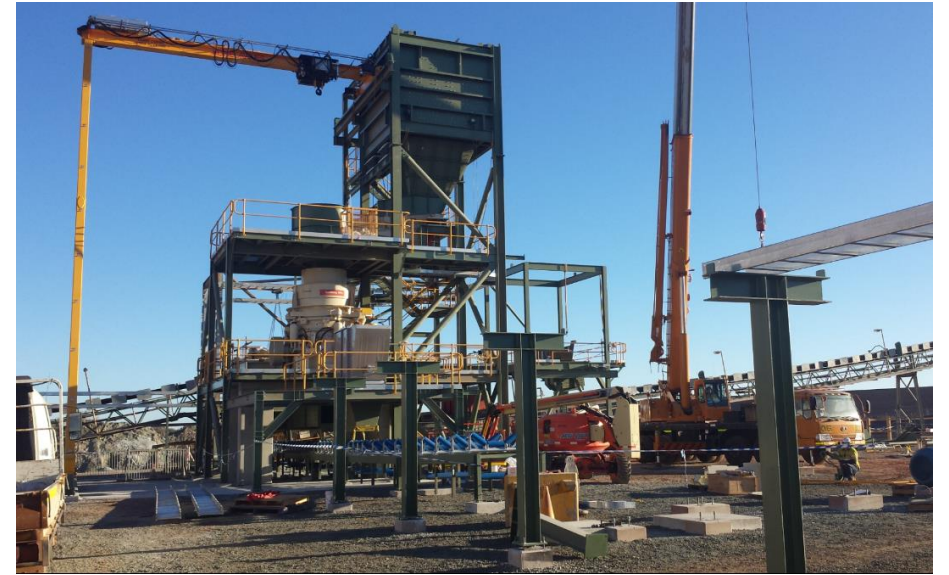


Open Pit Opportunities:

- Significant drilling program completed
- Results show open pit potential over tenement package
- First open pit Reserve declared for Jundee in 10 years – more where that came from
- Currently evaluating options to fit this production into the schedule

Jundee Processing Capacity Growth

- ✦ Jundee processing capacity increased from 1.3Mt/y in FY16 to **1.5Mt/y in FY17**
- ✦ Jundee Expansion Project ~A\$18M total project cost
 - ✦ *Lifts hard rock capacity to +1.7Mt per annum*
 - ✦ *Installing a secondary crushing circuit*
 - ✦ *Upgrading gravity circuit to improve recoveries*
 - ✦ *Grinding circuit modification and process control stabilisation*
 - ✦ *Upgrade will be completed in the December quarter*
- ✦ There will be more expansion opportunities to pursue once the current project is complete
- ✦ **Clear plan for 300Kozpa production**



KALGOORLIE OPERATIONS

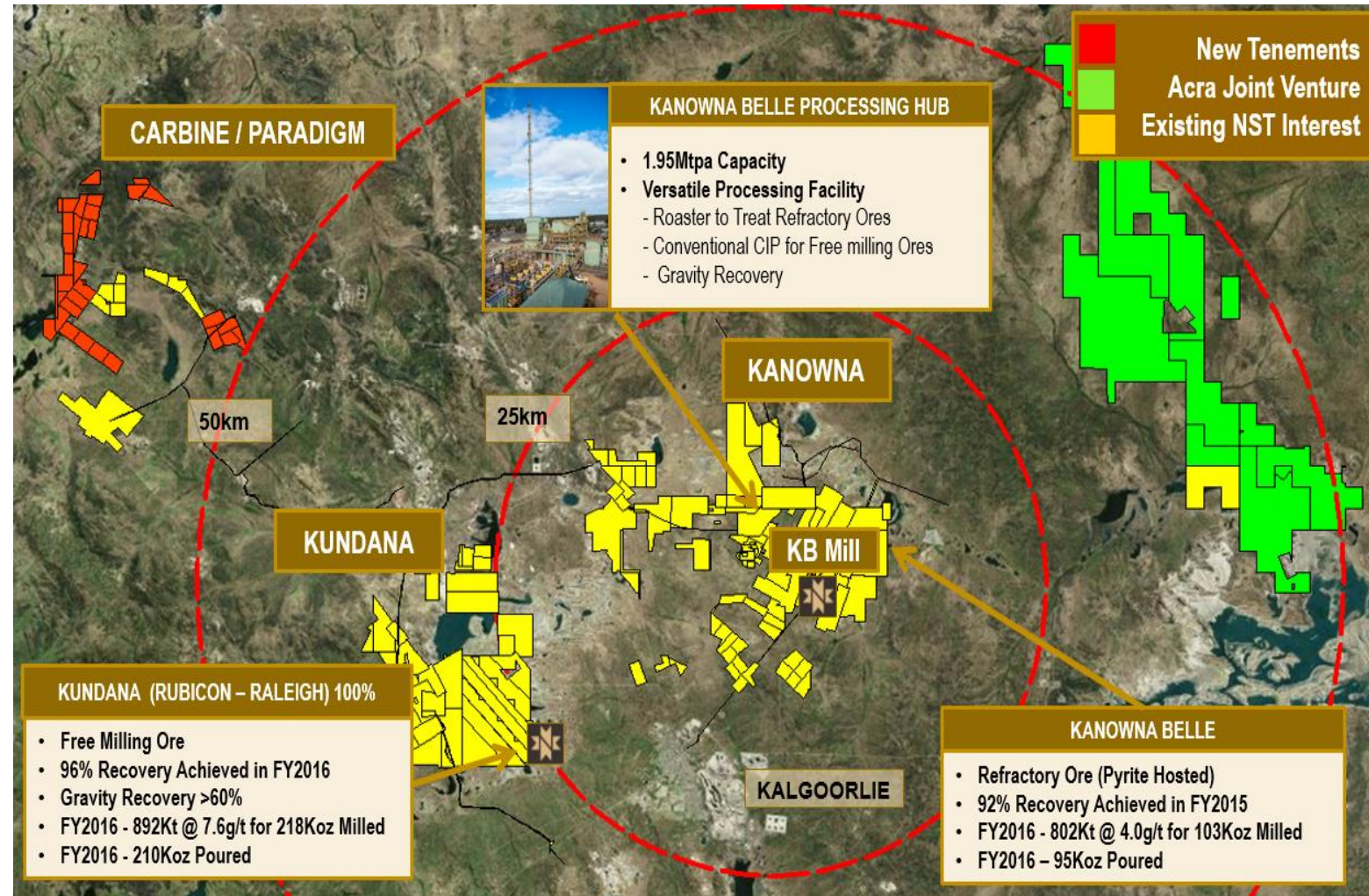
FY2017 224,800 @ A\$969/oz

FY2018 245,00-265,000oz @ A\$1,000-1,050/oz

FY19 onwards 300,000-325,000ozpa

Kalgoorlie Operations: Rapid, low-cost growth

- ✦ 6.7Moz of gold production over the past 24 years, average of 280kozpa with a peak year of 370koz.
- ✦ Resource/Reserve upgrades now provide 10 years of mine life visibility across the Kalgoorlie operation: Reserve up 117% to 2.0Moz and Resource up 25% to 4.5Moz
- ✦ **Our Objective is to grow Kalgoorlie operations to 300-325koz pa within 24 months**
- ✦ Significant opportunities to achieve this increased production via developing 100% owned Kundana deposits, extending Kanowna at depth and mining satellite pits



Kalgoorlie Operations: FY2017 Achievements

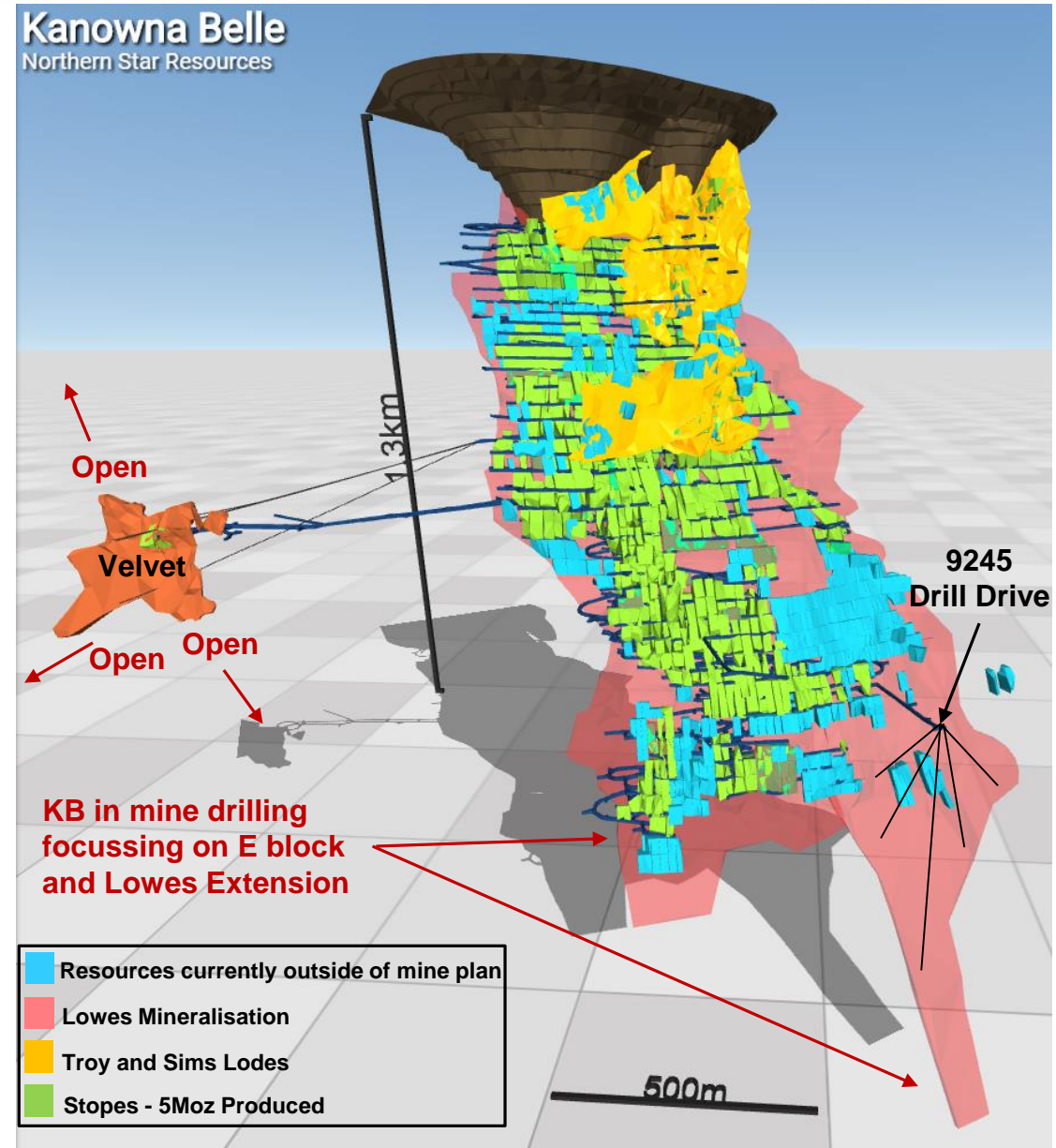
- ✦ Record Northern Star ounces and EKJV ounces
- ✦ Record processing throughput – 1.95 Mtpa
- ✦ 367,007m of drilling – Surface, UG , RC, Diamond etc.
- ✦ First Ore Millennium – Portal to ore in <12 months.
- ✦ Third party Ore Purchase
- ✦ EKJV UG Contract changes – Barmingo transitioned out
- ✦ Significant increase in land holding – ACRA Joint Venture
- ✦ Toll treatment of EKJV ore by a third party
- ✦ EKJV ore sorting trial – removal of oversize stope material
- ✦ Significant increase in Reserves/Resources
- ✦ Split firing focus at EKJV – grade improvement project
- ✦ Held underground mines rescue comp at KB



Kalgoorlie Operations – Kanowna Belle (100% NST)

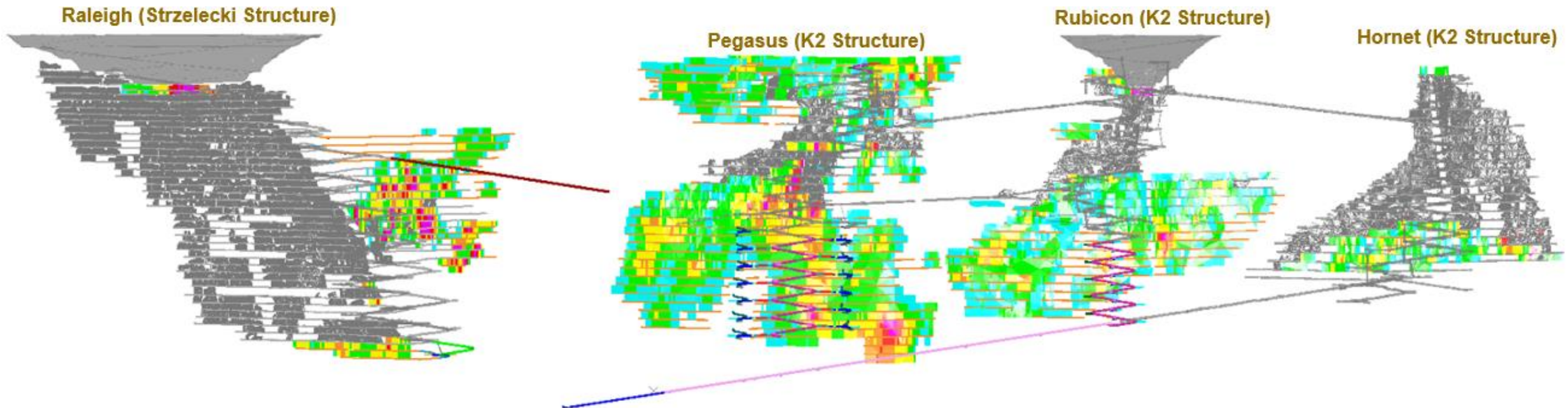


- ✦ Kanowna Belle is a +5Moz orebody, averaging 4koz per vertical metre with limited exploration below E block and along strike of the major gold bearing structure, Fitzroy fault
- ✦ Reserve has increased 120% to 0.5Moz and Resources are 1.4Moz which underpins long mine life.
- ✦ R&R upgrade now allows for NST to take time and explore/identify new opportunities within the system especially at depth
- ✦ NST has also aggressively cut costs that has allowed the current mine plan to be reviewed to bring existing Resources into production (blue areas on long section)
- ✦ The Velvet deposit remains open up dip, along strike and down plunge back towards the main Lowes ore body
- ✦ Only 12 historic holes have been drilled below the base of E Block; Lowes Extension exploration is currently targeting this area from the 9245 drill drive with two drill rigs
- ✦ Mineralisation has been encountered up to 450m below current workings



Kalgoorlie Operations- EKJV (51% NST)

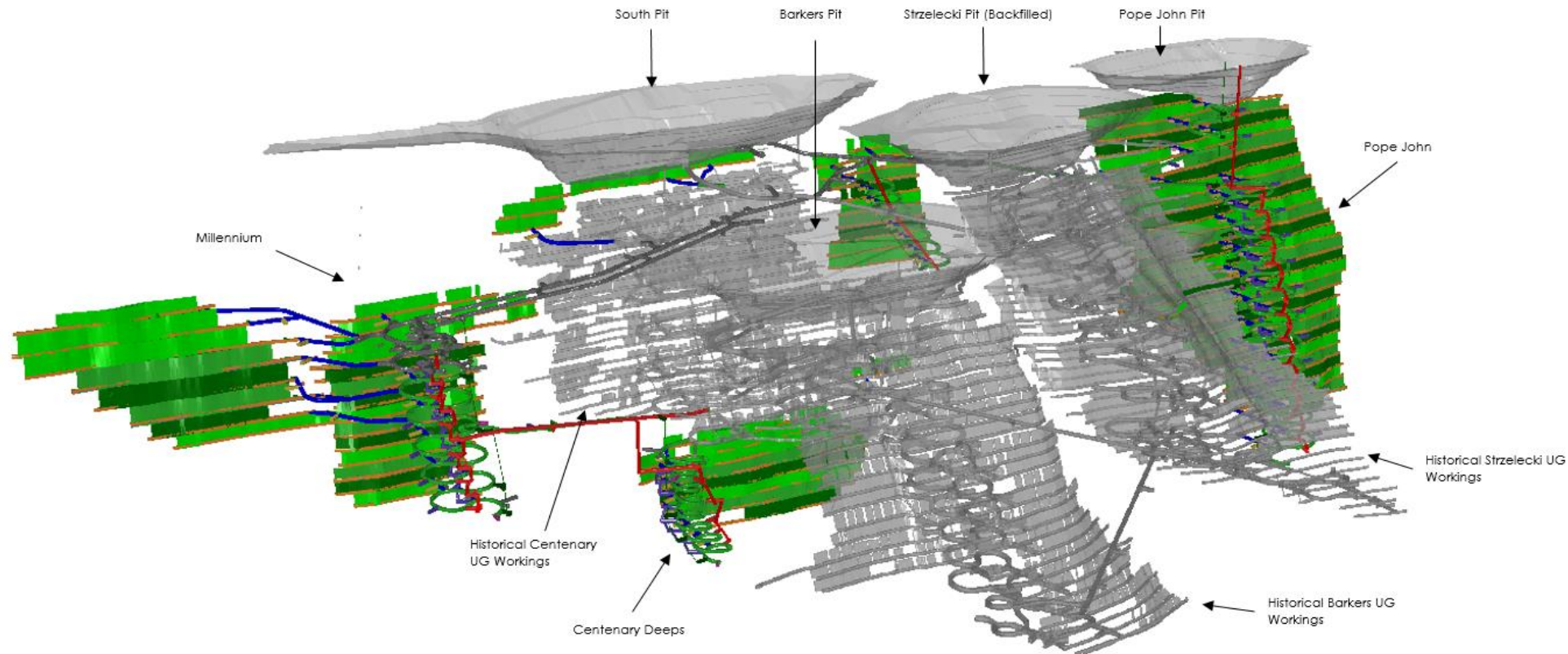
- ✦ NST Attributable Reserves increased 36% to 0.60Moz at 5.8gpt. Resource increased 35% to 1.3Moz.
- ✦ The high grade core still exists, with lower grade additional material discovered through exploration (hanging wall lodes, Pode).
- ✦ Moved to owner-operate model at EKJV in FY18, with NSMS expected to generate significant productivity gains.
- ✦ Drilling has successfully informed the step-change resource/reserve work– drill drive will provide the next step-change for EKJV development
- ✦ The new 2.1km drill drive is now ~40% complete, this drive will provide the next long term drill platform to explore the depth potential



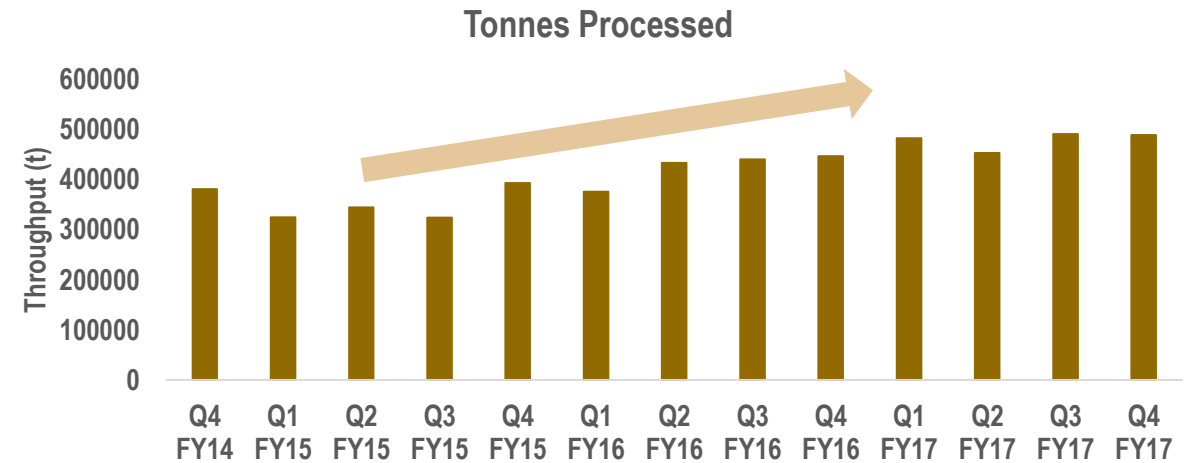
Kalgoorlie Operations – Kundana (100% NST)



- ✦ Past production on the 100% NST ground has yielded 1.25Moz at 6gpt, between 1990-2004
- ✦ FY17 Resource of 1.8Moz, Reserves increased to 0.8Moz at 4.2gpt with the addition of Paradigm & Carbine, **now larger than EKJV**
- ✦ Current development at Millennium is ahead of schedule, first production ore due in the September quarter, 2017 (Q1 FY18)
- ✦ Exploration success will drive multiple development decisions in FY2018 to drive organic growth – all lodes remain open at depth.



- ✦ Kalgoorlie milling **capacity is 2 Mt/y**
- ✦ **FY17 2nd highest historical throughput**
- ✦ **FY17 – increased throughput and recovery**
- ✦ **Improved equipment availability and utilisation:** outstanding for a 24 year old plant
- ✦ Kalgoorlie **1.0-1.5Mtpa expansion study** is nearing completion
- ✦ Milling solutions beyond this year are close to finalisation



PAULSENS

FY2017 55,783 @ A\$1,455/oz

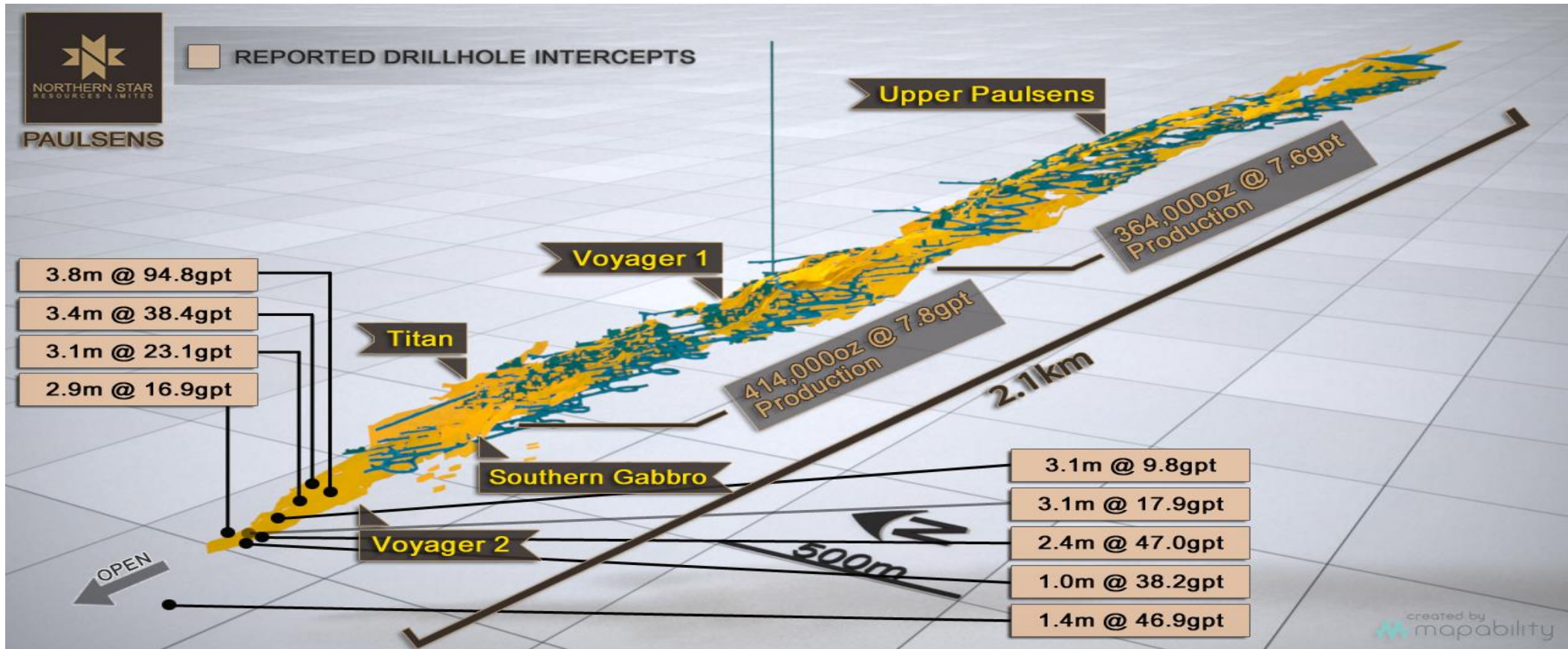
FY2018 35,00-45,000oz @ A\$1,300-1,400/oz

FY2021 Revitalisation back to 75,000ozpa

Paulsens: FY18 Exploration growth phase



- ✦ 1Moz of continuous gold production over the past 12 years, average of 75kozpa with a peak year of 100koz
- ✦ The 160RL drill drive has been completed to provide a platform to further explore the Voyager 2 lode
- ✦ FY18 – Focus to restore Paulsens back to a 75kozpa producer, with significant exploration planned





CENTRAL TANAMI

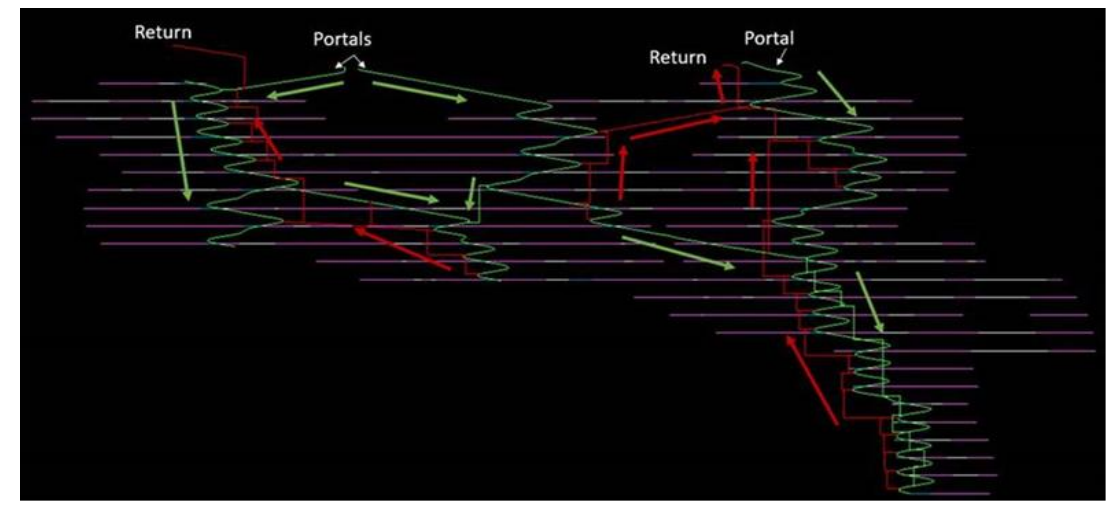
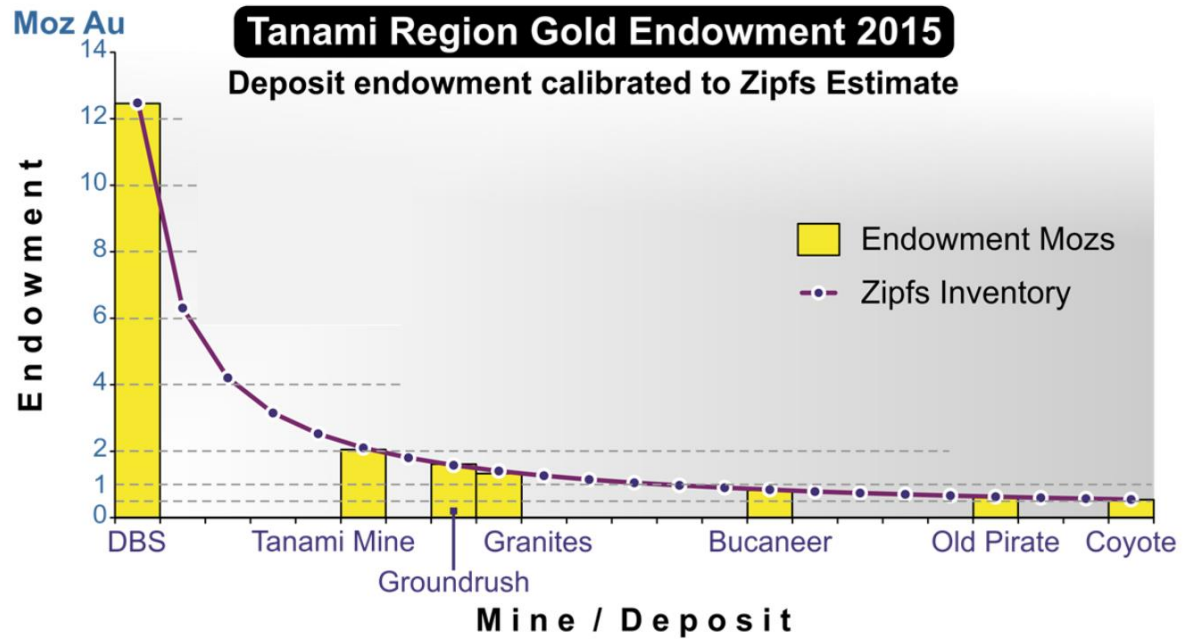
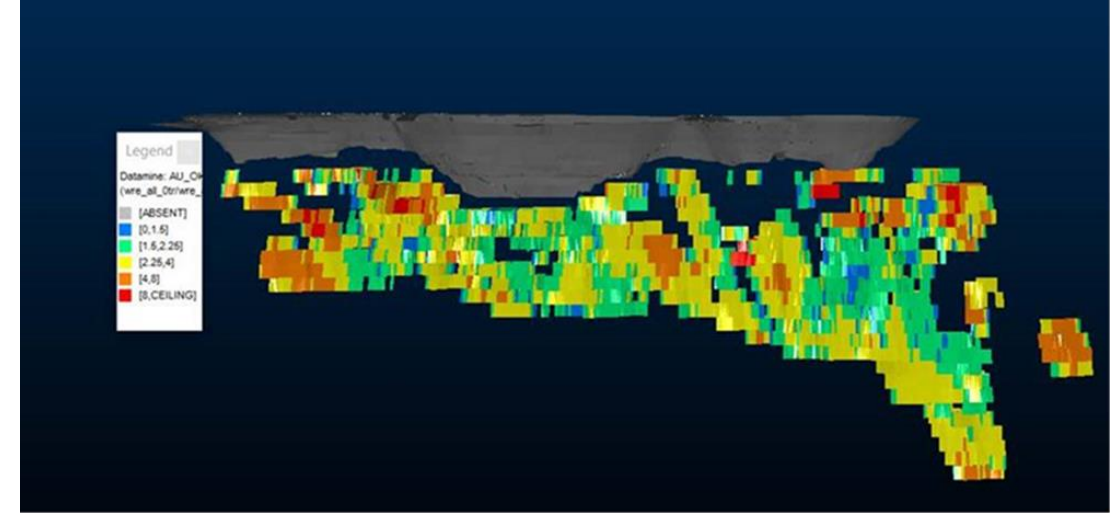
NST earning in to 60%

Re-development forecast for FY21

Central Tanami Project “CTP”: Groundrush



- ✦ The Groundrush deposit is one of the top historical assets in the Tanami region: Mined 610koz at 4.3gpt over a 4 year period, and mineralisation continues at depth
- ✦ Finalising development plan, including plant refurb, during FY18 – plenty of options
- ✦ Project permitting will then commence



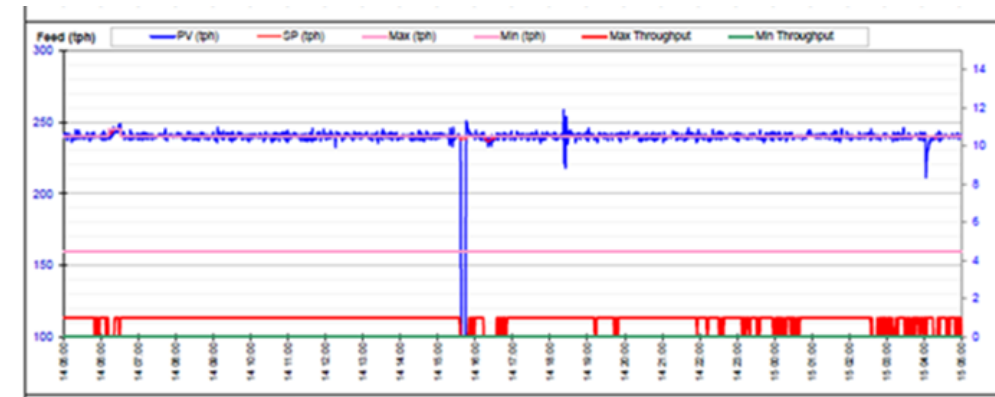
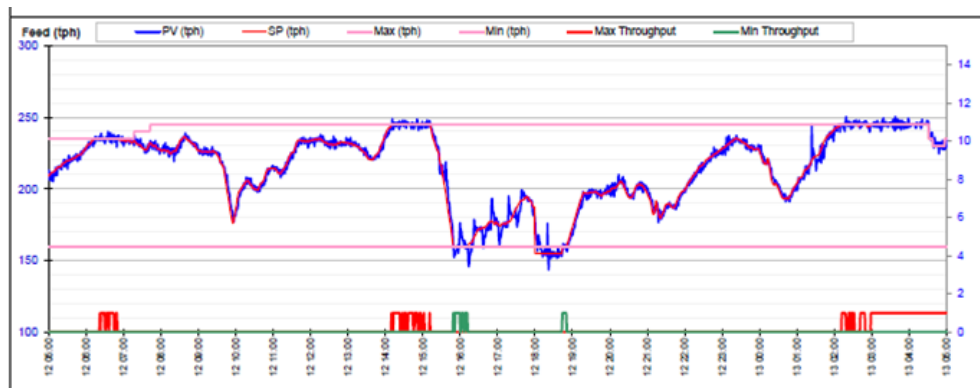
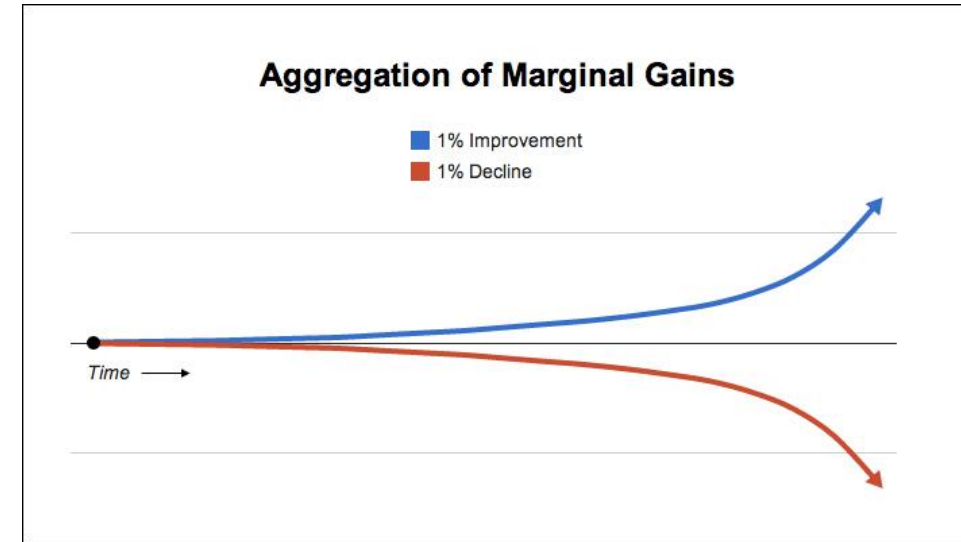
WHERE TO FROM HERE?

- Operational Excellence



Where to from here? Further operational excellence

- ✦ Continue pathway to growth:
 - ✦ *De-bottlenecking current production*
 - ✦ *Start new production fronts*
 - ✦ *Innovation*
- ✦ Refine and optimise the assets
- ✦ Focus on operational efficiency
 - ✦ *Eliminate Waste*
 - ✦ *Marginal Gains*
 - ✦ *Improve 100 things by 1%*





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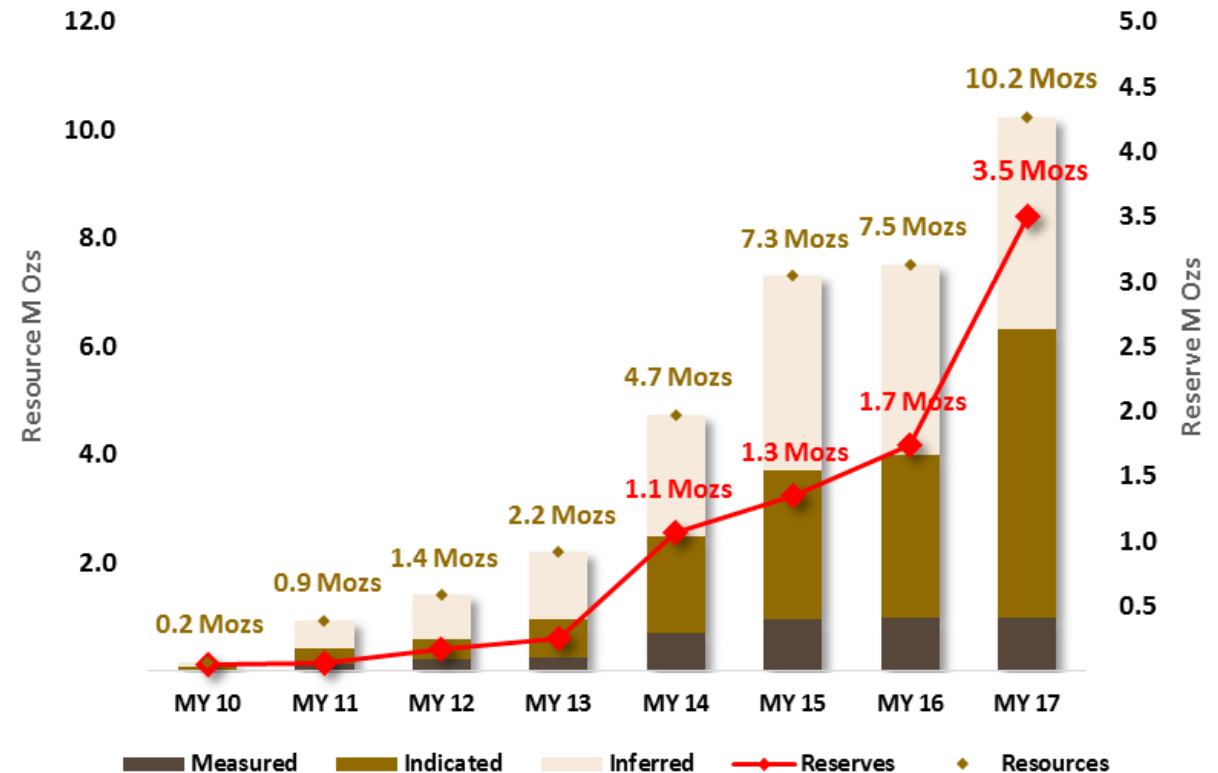
An Australian gold miner – for global investors
Geology Update - August 2017

Growth around our Tier 1 assets is the core focus



- ✦ By the end of FY2017, NST had invested ~A\$160M in exploration since the acquisition of its Tier 1 portfolio 3 years ago
- ✦ FY2017 saw A\$56M was invested in exploration to organically grow Reserve and Resource life across our asset base
- ✦ Stellar result growing Group Reserves to 3.5Mozs (after depletion) at a cost of just A\$24/oz (US\$20/oz)
- ✦ This 3 year investment has achieved a material update to the Company's Resources and Reserves provides the key to a **clear road map for the future of the business**
- ✦ A\$35M budgeted exploration spend in FY2018, will replace mining depletion through FY17/18

NST Resource and Reserve Growth



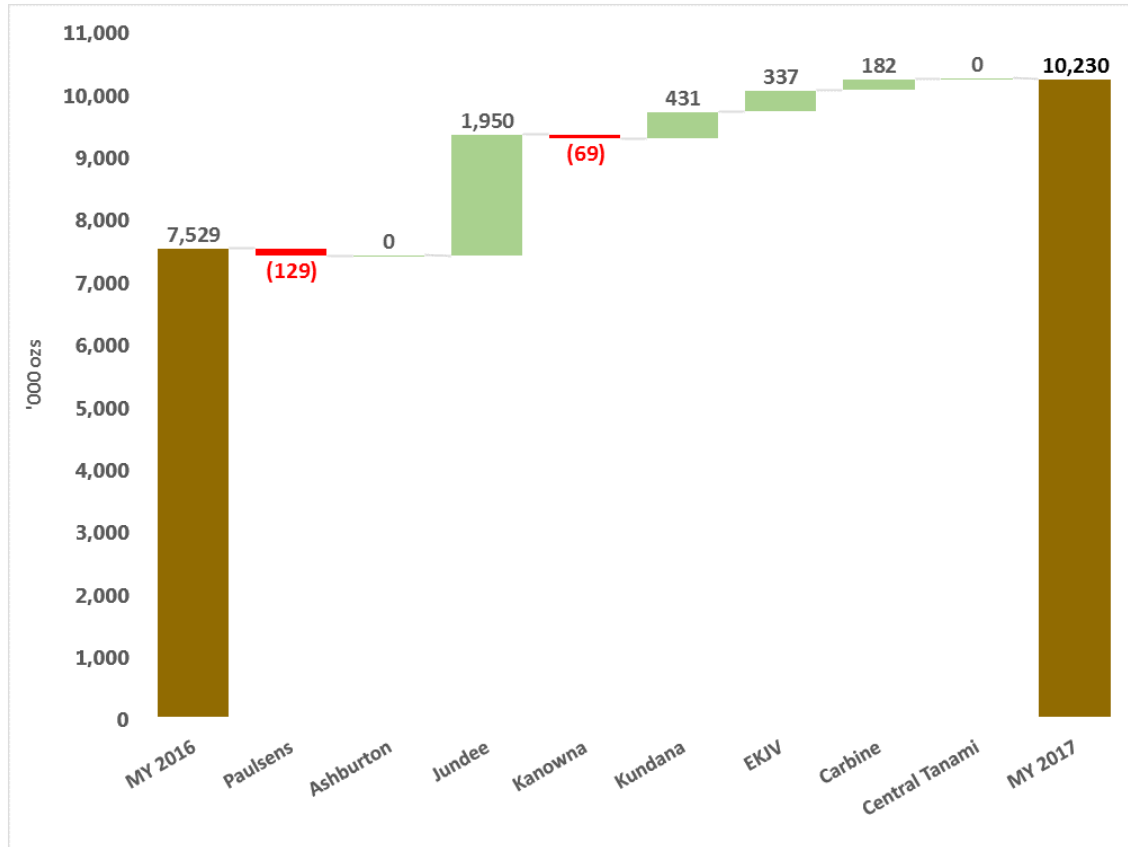


- ✦ Significant increases to Reserves and Resources within the 2017 update released 3 August 2017
- ✦ Latest Resource/Reserve statement:
 - ✦ *~3.5Moz Group Ore Reserves: +2.3Moz after mining depletion from June 2016*
 - ✦ *~10.2Moz Group Mineral Resources: +2.7Mozs from June 2016*
- ✦ Equates to a conversion cost of circa A\$24 / Reserve ounce
- ✦ 7 year ore reserve visibility in Kalgoorlie and Jundee now a reality, Paulsens the next focus for concentrated Resource/Reserve development
- ✦ Well positioned to achieve Reserve replacement for FY18
- ✦ Strong view on future Resource conversion – ability to rapidly turn 7 year mines lives into +10 year mine lives now that a substantial Resource base has now been established

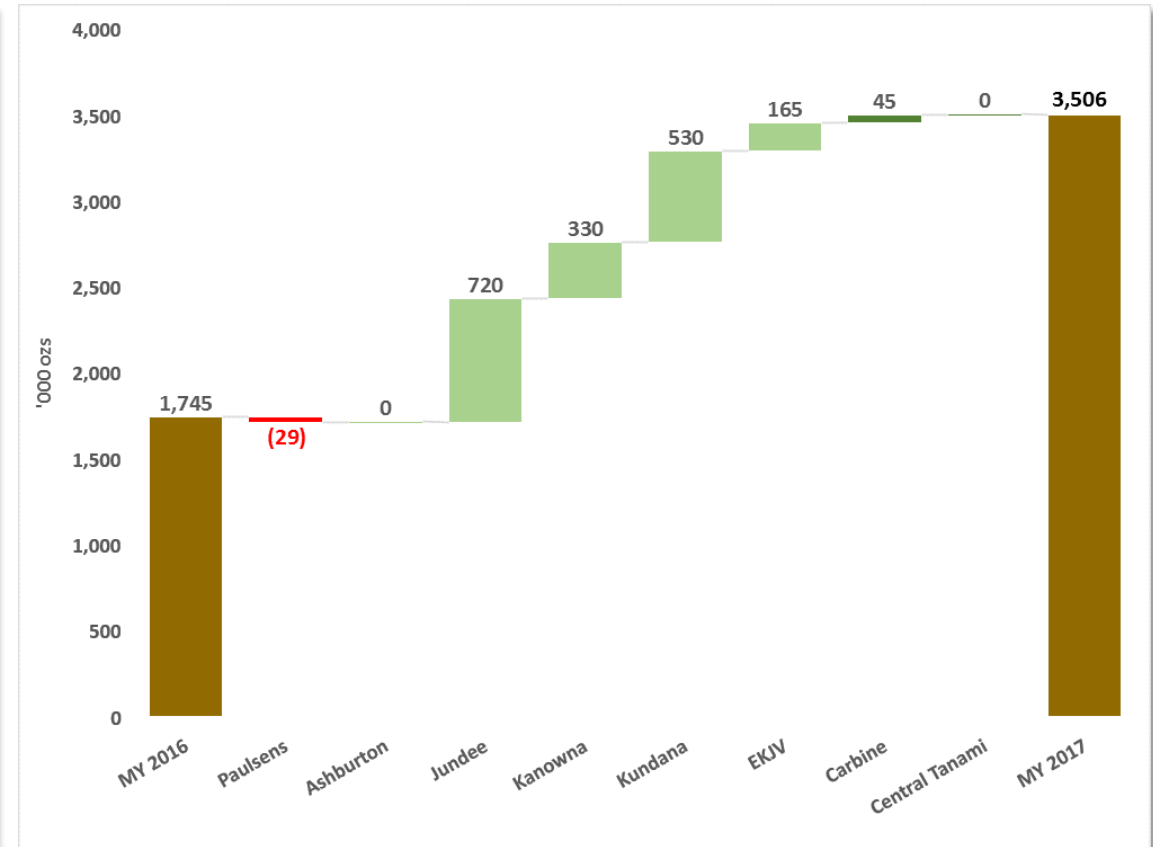
A large increase drives the 10 year outlook.....

- ✦ Jundee and Kalgoorlie assets both recorded significant increases to Reserves and Resources.
- ✦ The below graphs are resource and reserve growth net of 534,735 ounces of depletion in the year

FY17 Resource Growth



FY17 Ore Reserve Growth

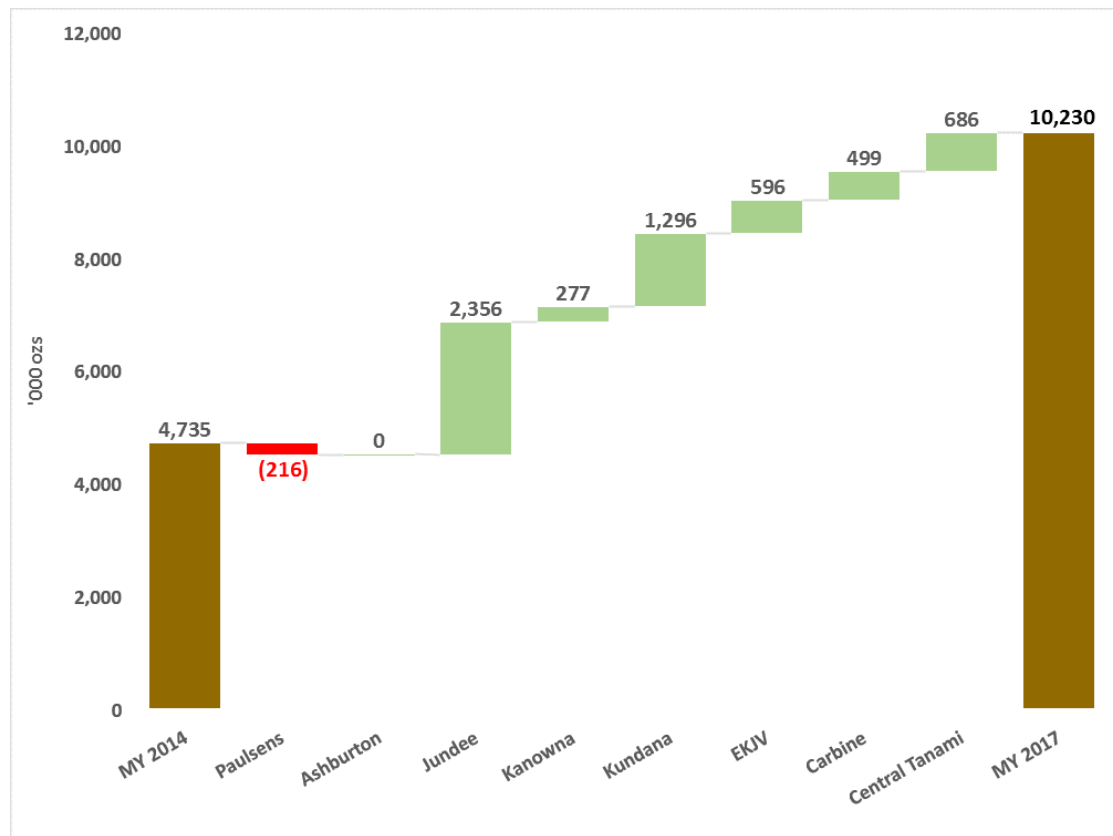


Built From Sustained Exploration Investment in Tier 1 Assets

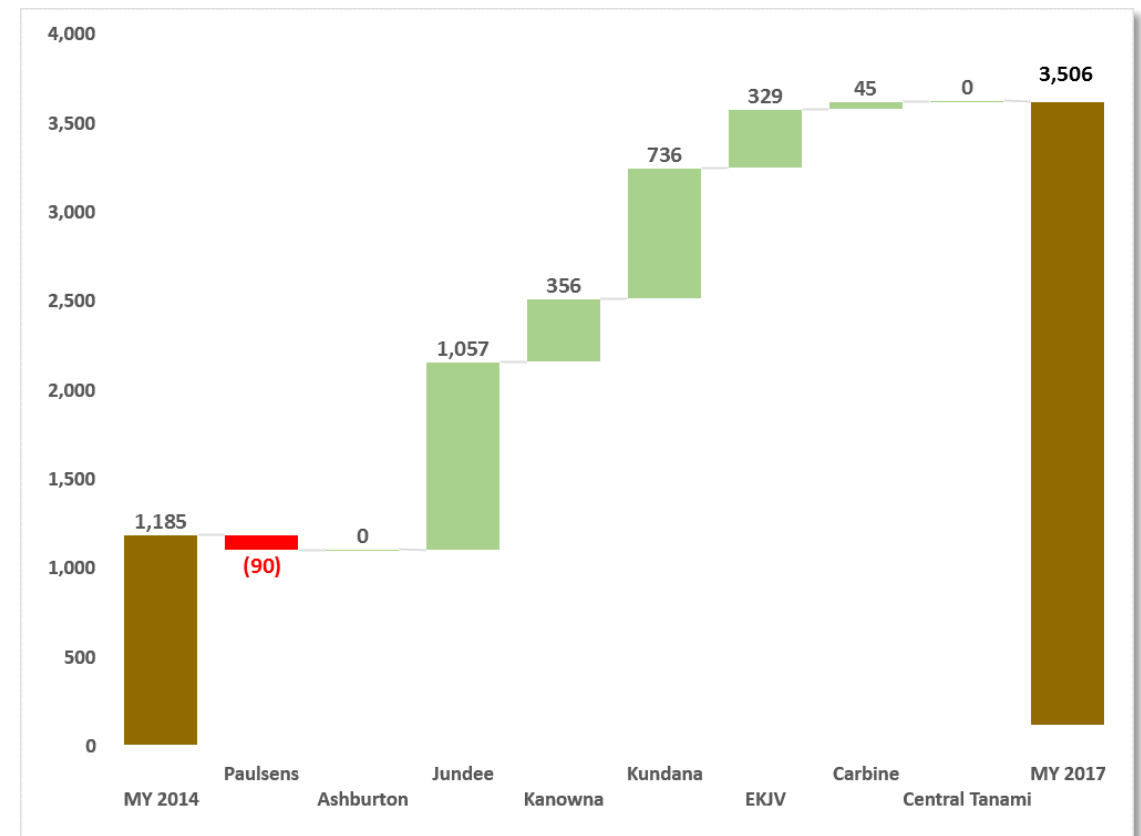


- ✦ Sustained exploration commitment delivers exceptional value and investment return
- ✦ The below graphs are resource and reserve growth net of 1.65Mozs depletion and Plutonic divestment

3 Year Resource Growth



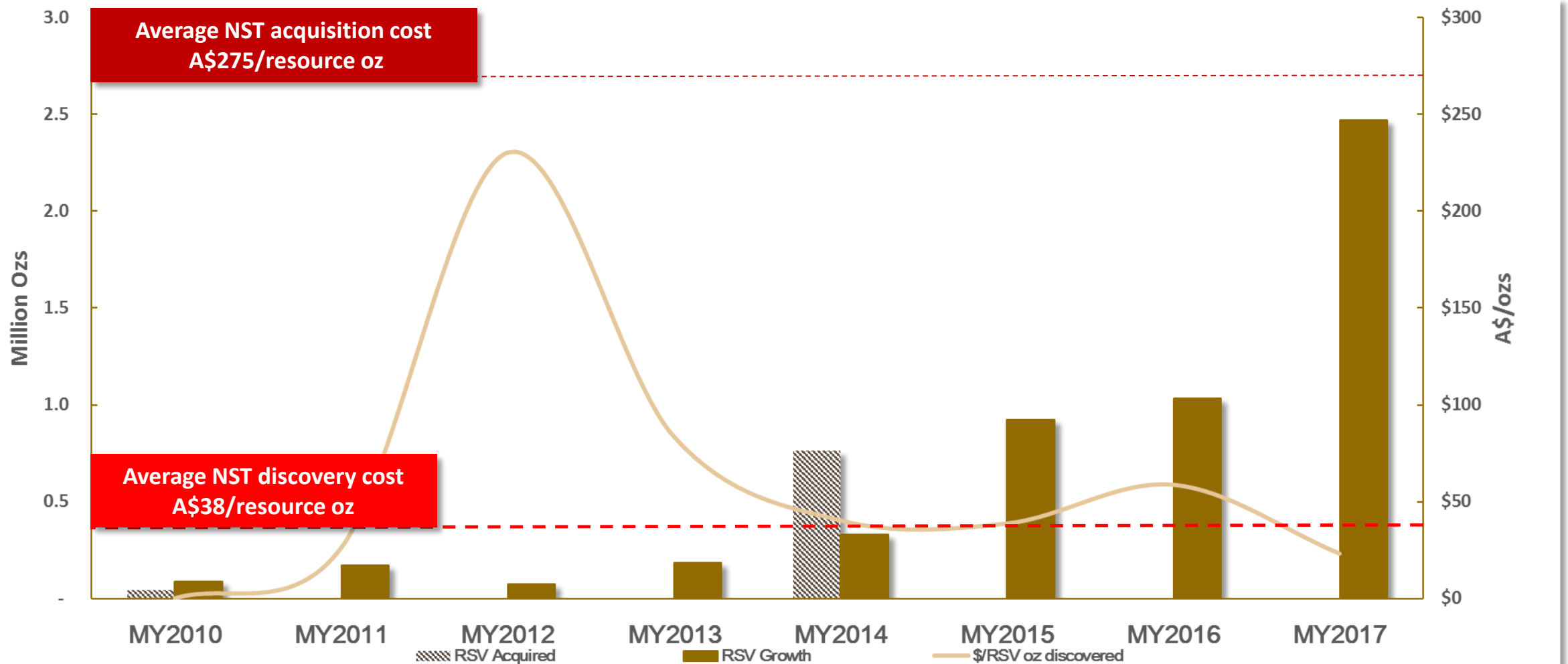
3 Year Ore Reserve Growth



Organic Growth Delivers Strong Investor Returns



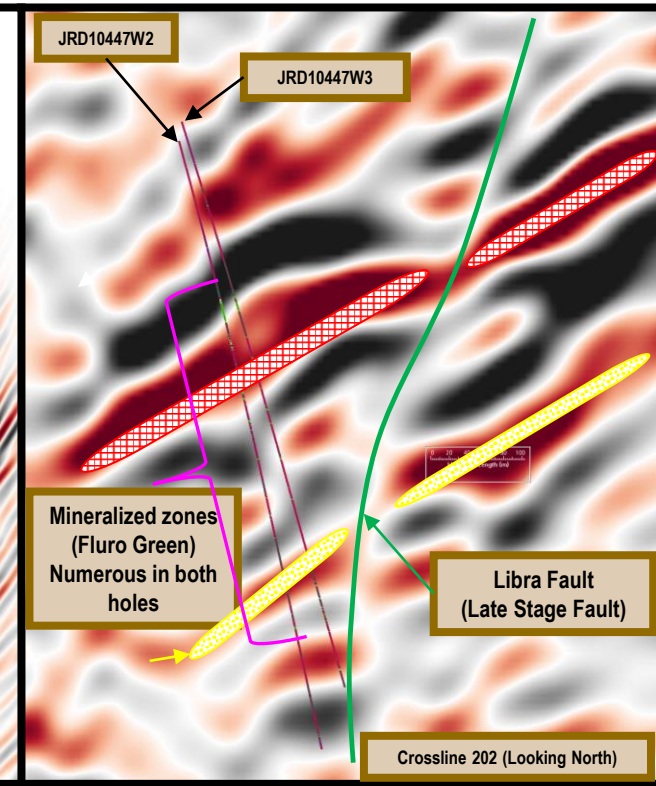
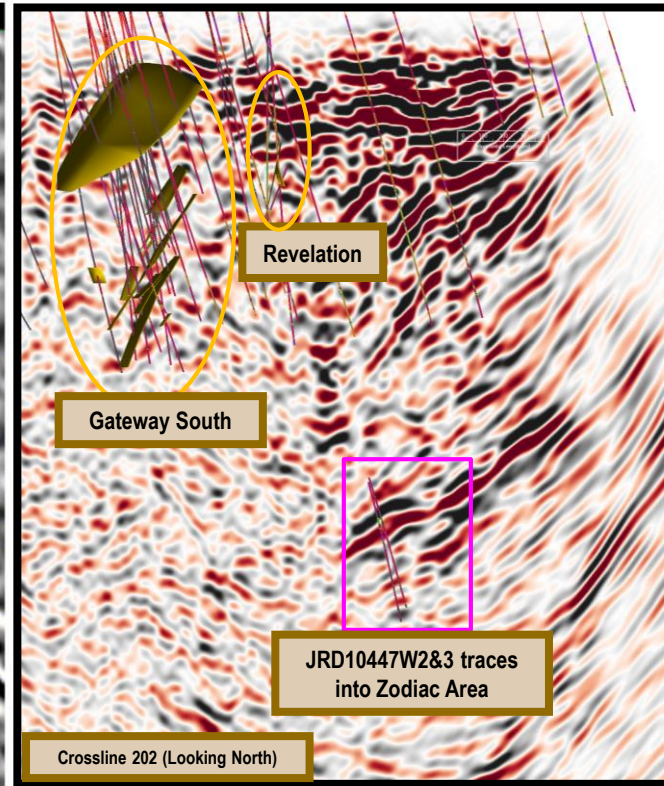
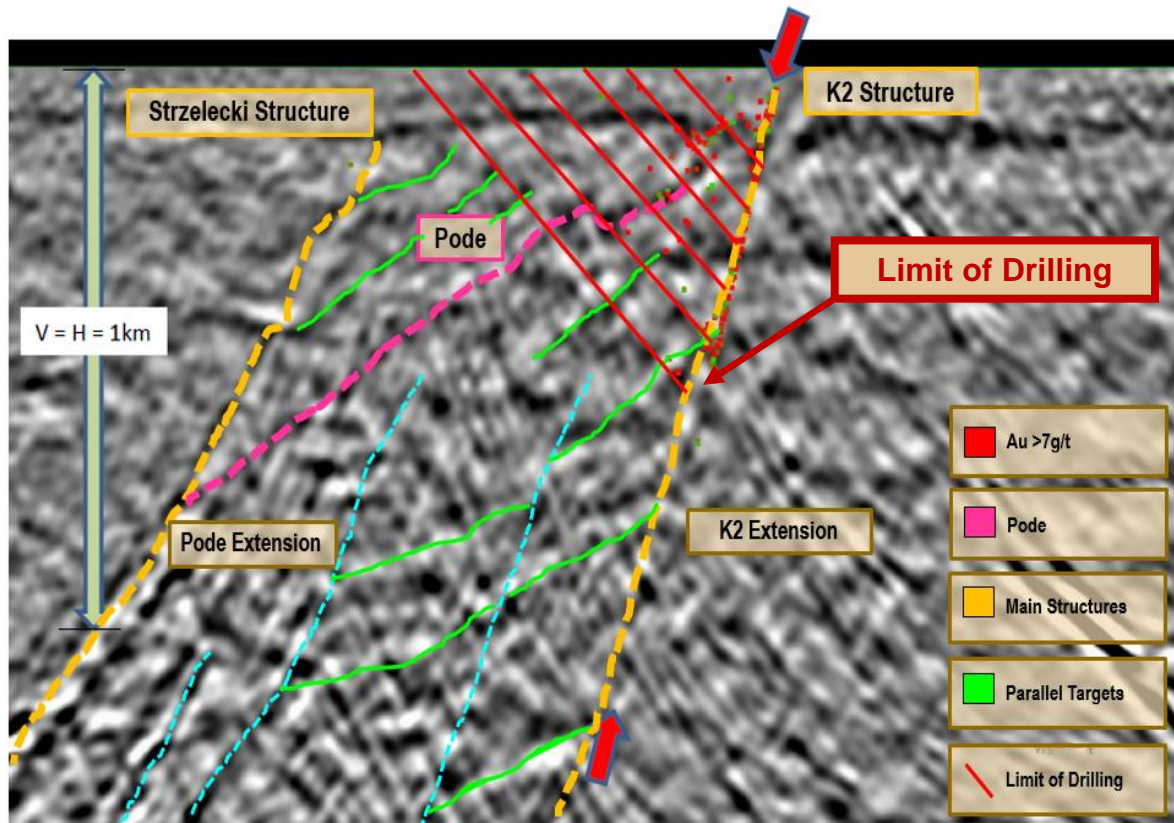
- ✦ NST acquired Resource ounces at A\$275/oz and has averaged Resource discovery costs of just A\$38/oz
- ✦ NST has generated exceptional investment returns at well below industry benchmarks



NST Exploration: Leveraging the latest technology



- ✦ NST has been leveraging the latest geophysical exploration techniques with great success at Kundana and now at Jundee deposit with 2D and 3D seismic surveys
- ✦ Seismic has successfully identified extensions and parallel targets for future exploration; Pode and Zodiac
- ✦ NST is also conducting over 75,000 line km of airborne geophysics in the Northern Territory

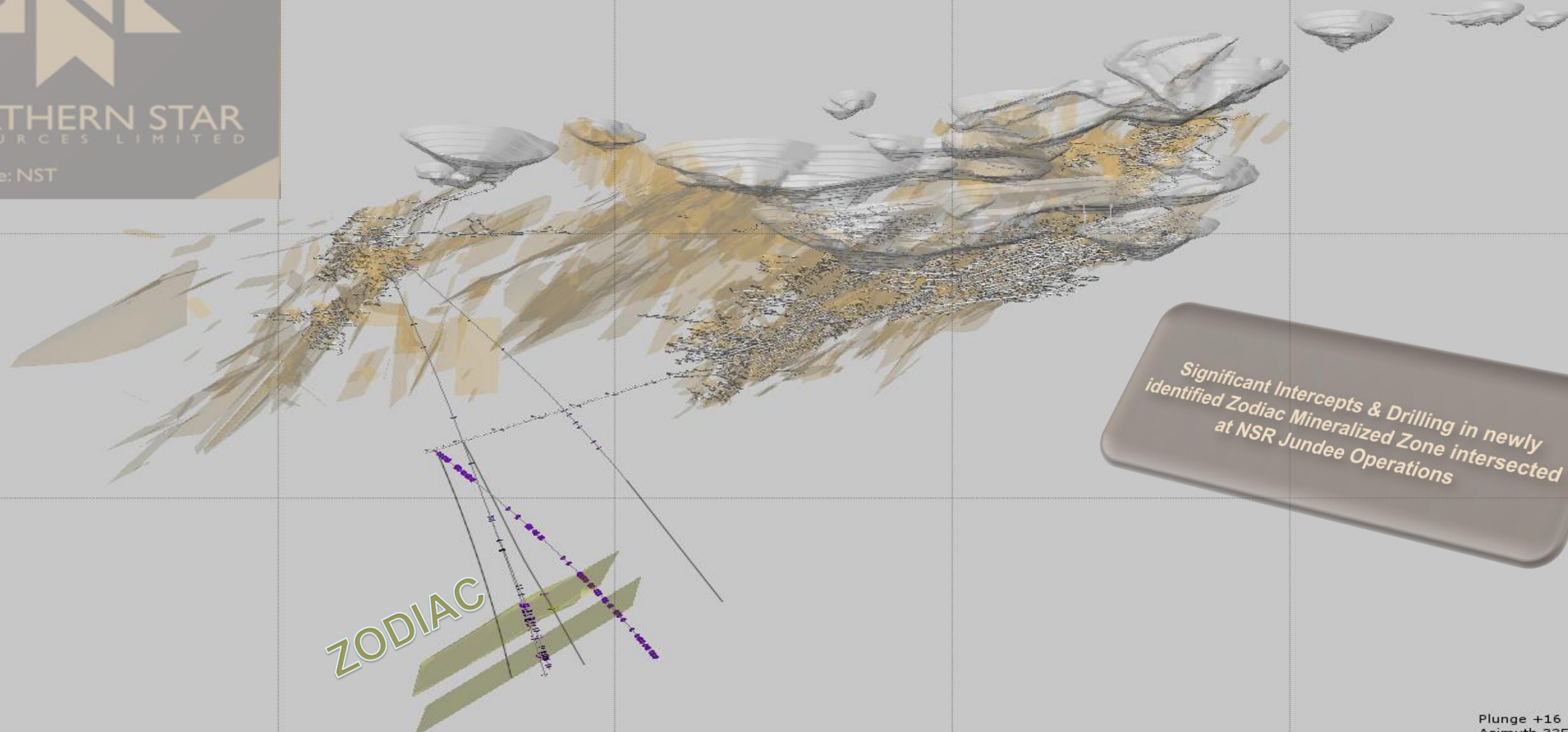


Jundee – The Next 10 Years and Beyond.....



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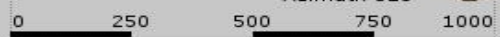
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Significant Intercepts & Drilling in newly identified Zodiac Mineralized Zone intersected at NSR Jundee Operations

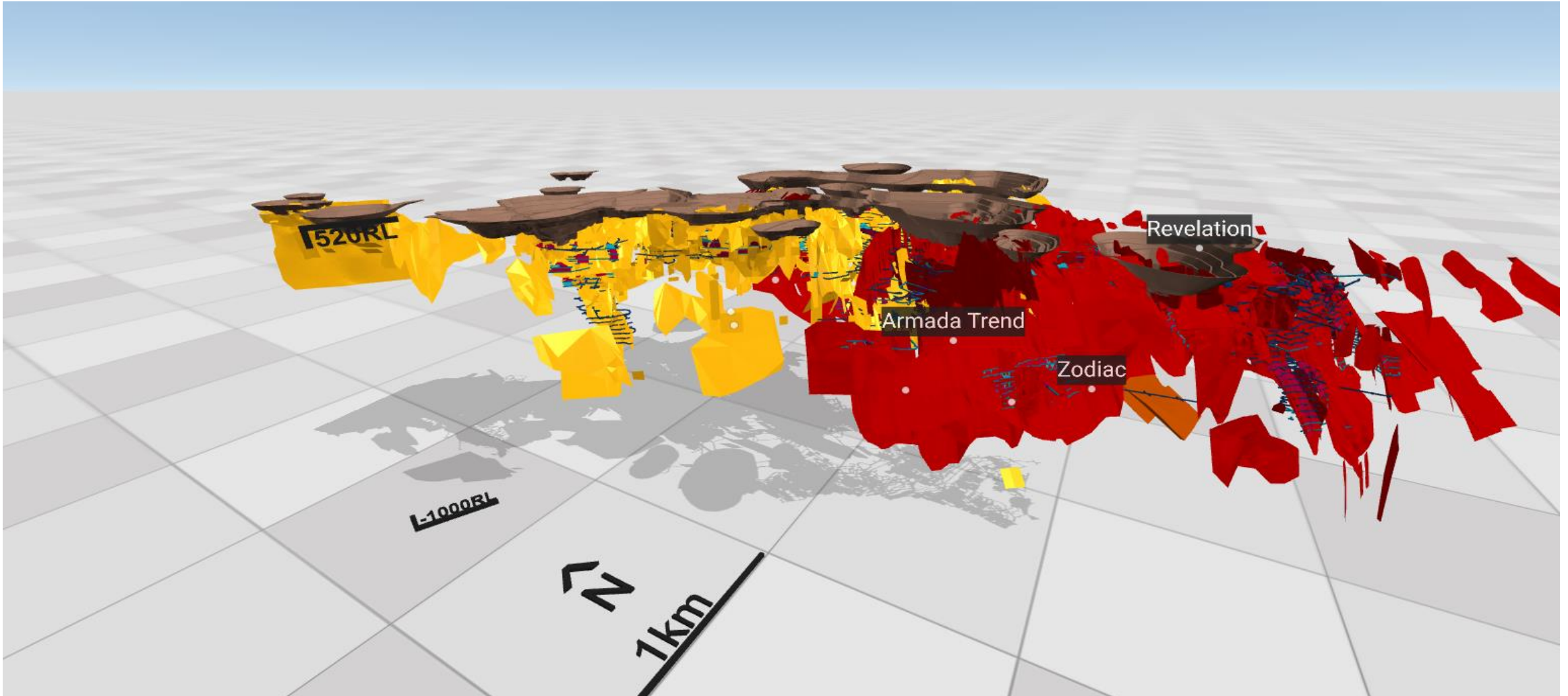
ZODIAC

Plunge +16
Azimuth 325



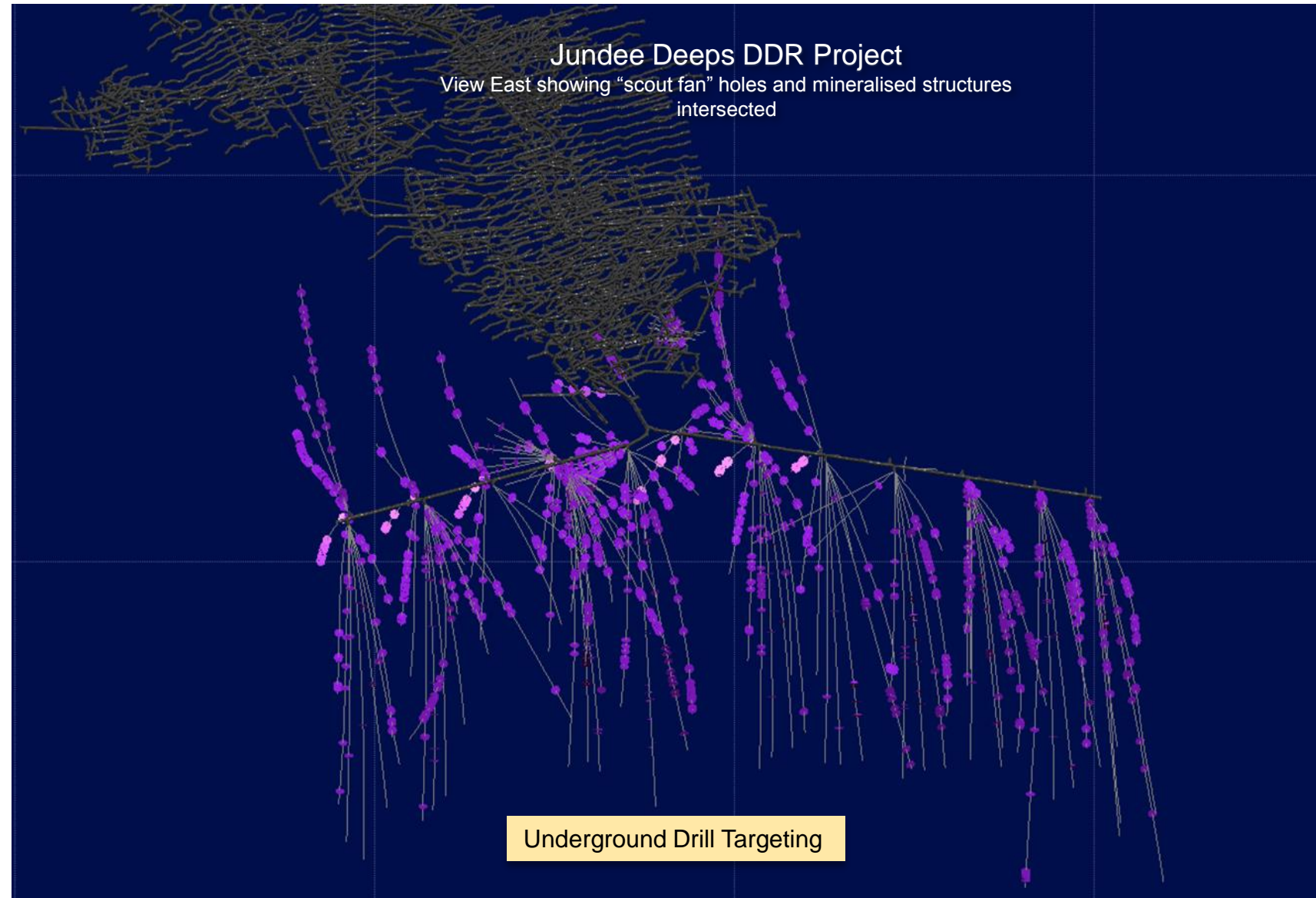
Jundee – A World Class Gold Deposit

- ✦ Jundee Reserves up 100% to 1.45Moz, Resources are up 155% to 3.2Moz
- ✦ FY17 mineralisation additions highlighted in red



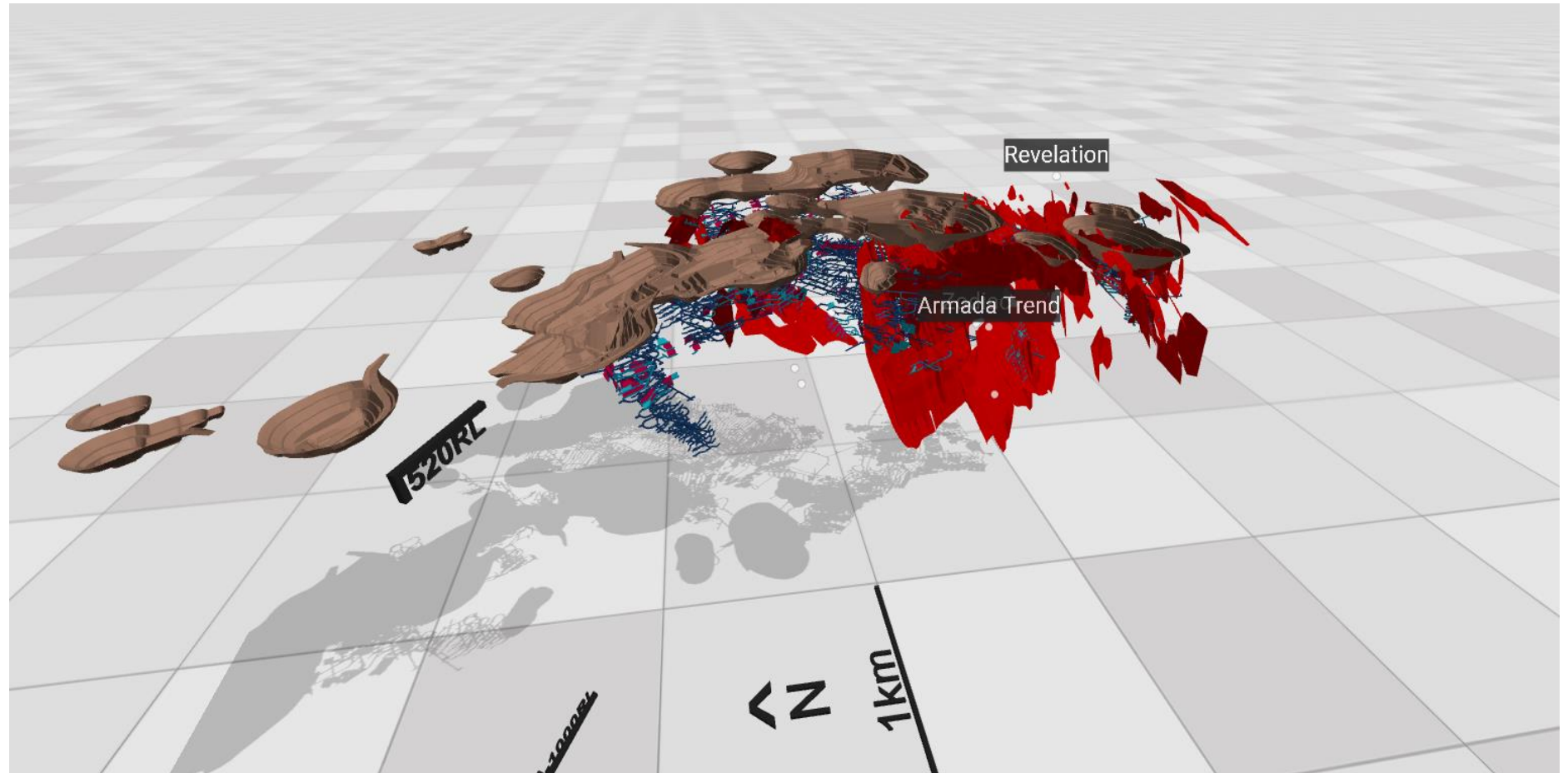
Jundee – Underground Exploration Continues

- ✦ Jundee Deeps DDR Project
- ✦ Two year investment to test a volume of rock equivalent to the 7Moz Jundee production centre
- ✦ 70% of the original scheduled holes completed (84,000m of planned 121,000m)
- ✦ Further 96 holes or 69,000m may still be required to complete initial assessment
- ✦ Armada discovery is first major success



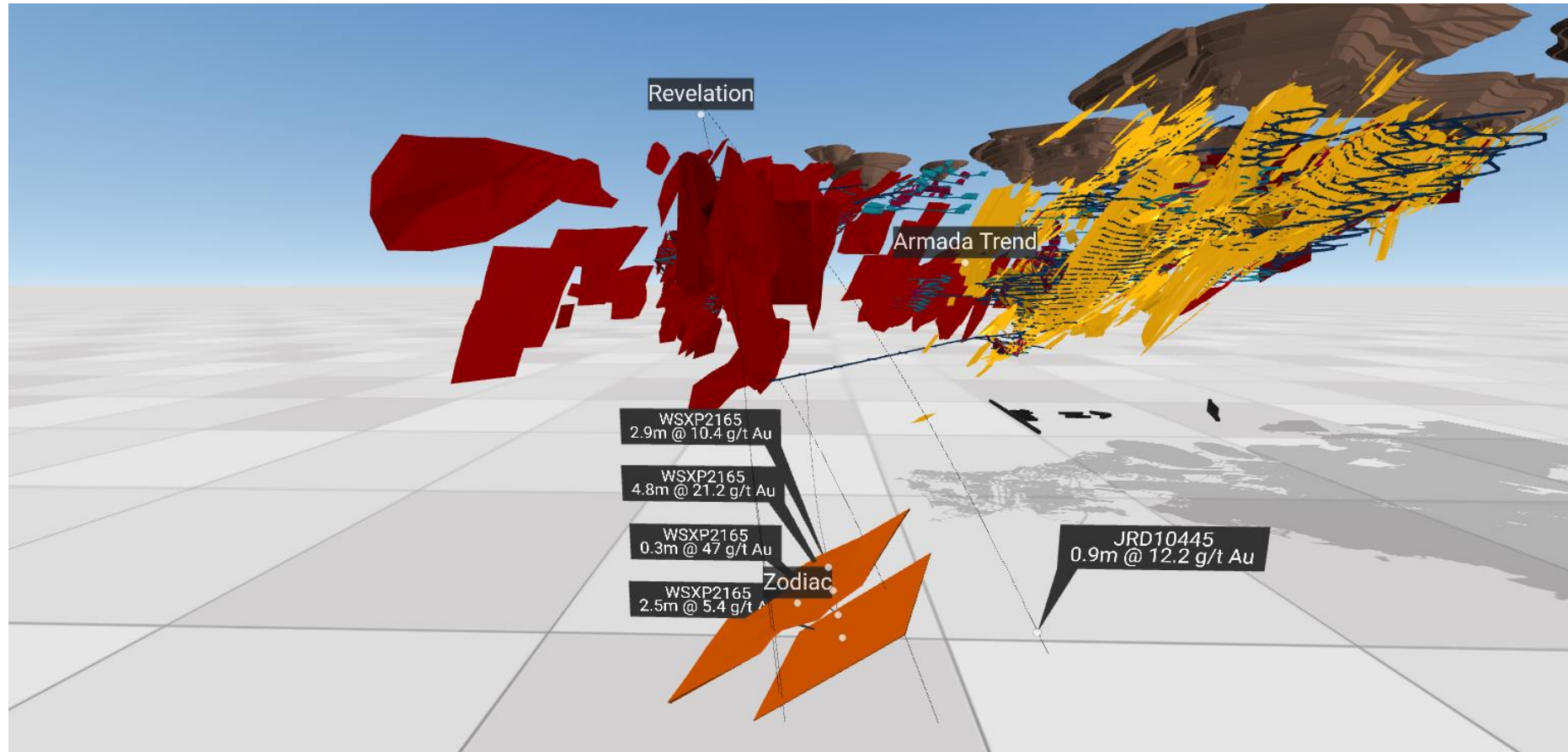
Armada – Just the Beginning

- ✦ Significant investment pays dividends
 - ✦ Armada discovery was in the database
 - ✦ Armada trend now 2.5km strike length
 - ✦ Less than 20% drilled to resource status – open everywhere
 - ✦ Provides 5-10 year growth visibility at Jundee
- ✦ FY2017 Resource (in red) driven by in-mine growth and maiden Armada Resource (288,000oz). Armada discovery only contributed 9% to the new Resource estimate



The Zodiac Discovery - A Brilliant Result

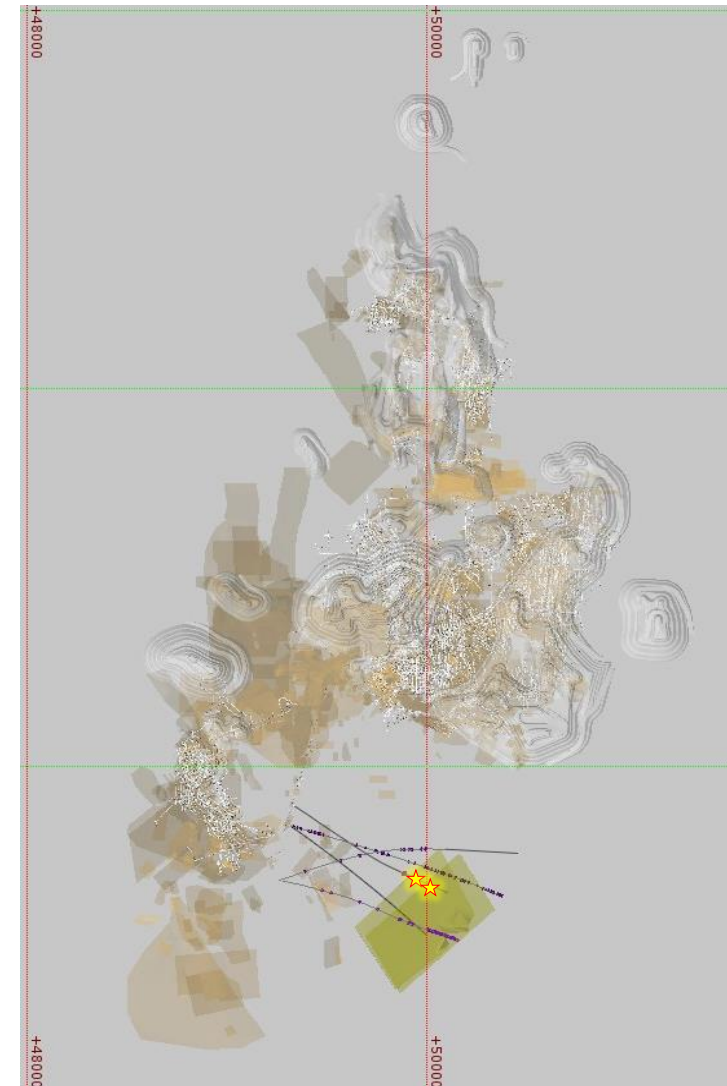
- ✦ Located in the Stirling fault complex
- ✦ Hosted within the Fisher Basalt in the footwall of the Jundee mine sequence
- ✦ The new mineralised corridor open in all directions beneath Jundee mine and importantly, to the untested southern areas.
- ✦ Generated from a 3D seismic survey
- ✦ Zodiac discovery has the potential to significantly expand the known parameters of the world-class Jundee gold deposit



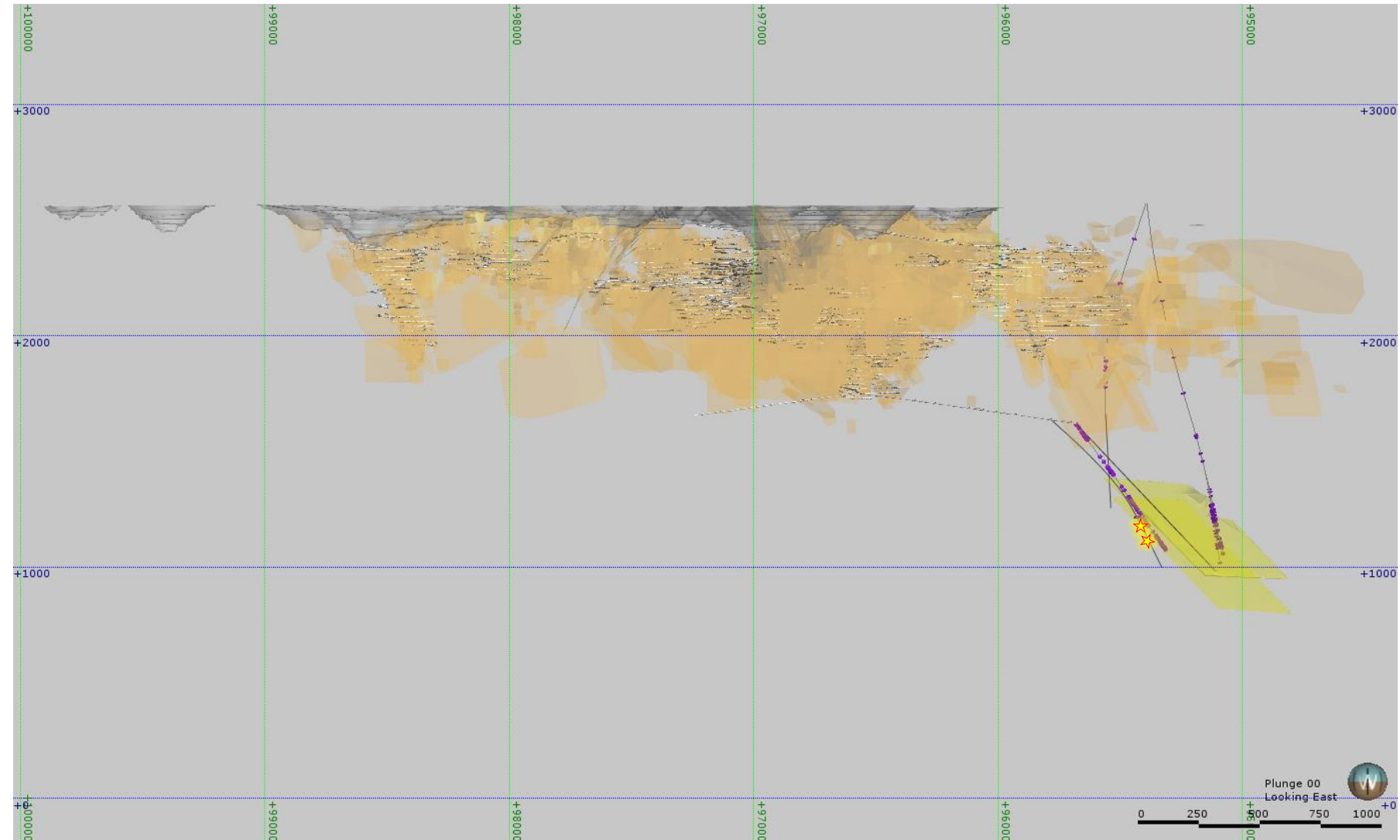
Zodiac Discovery – Spatial Position



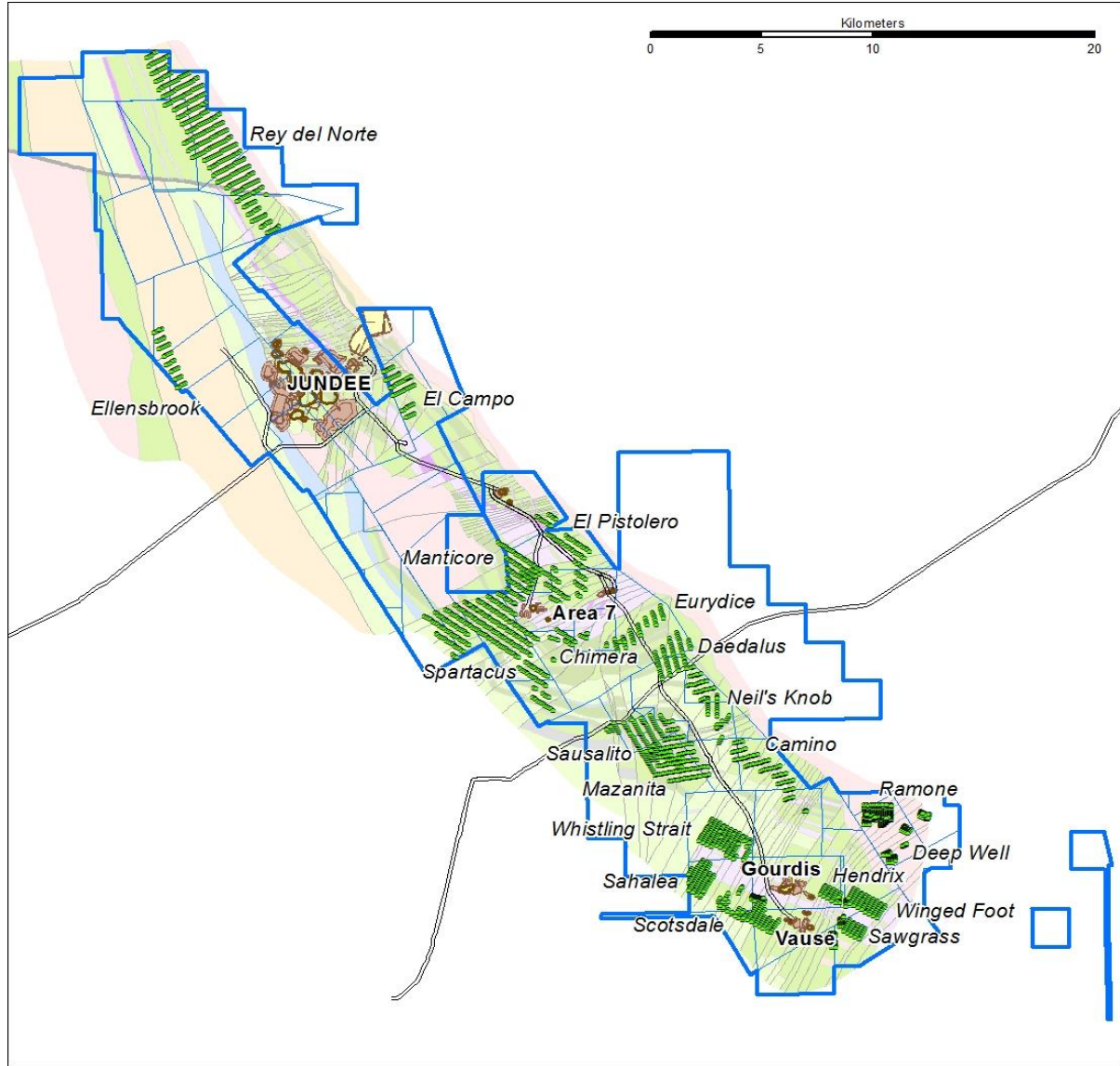
Plan View (North at top)



Section view Looking East



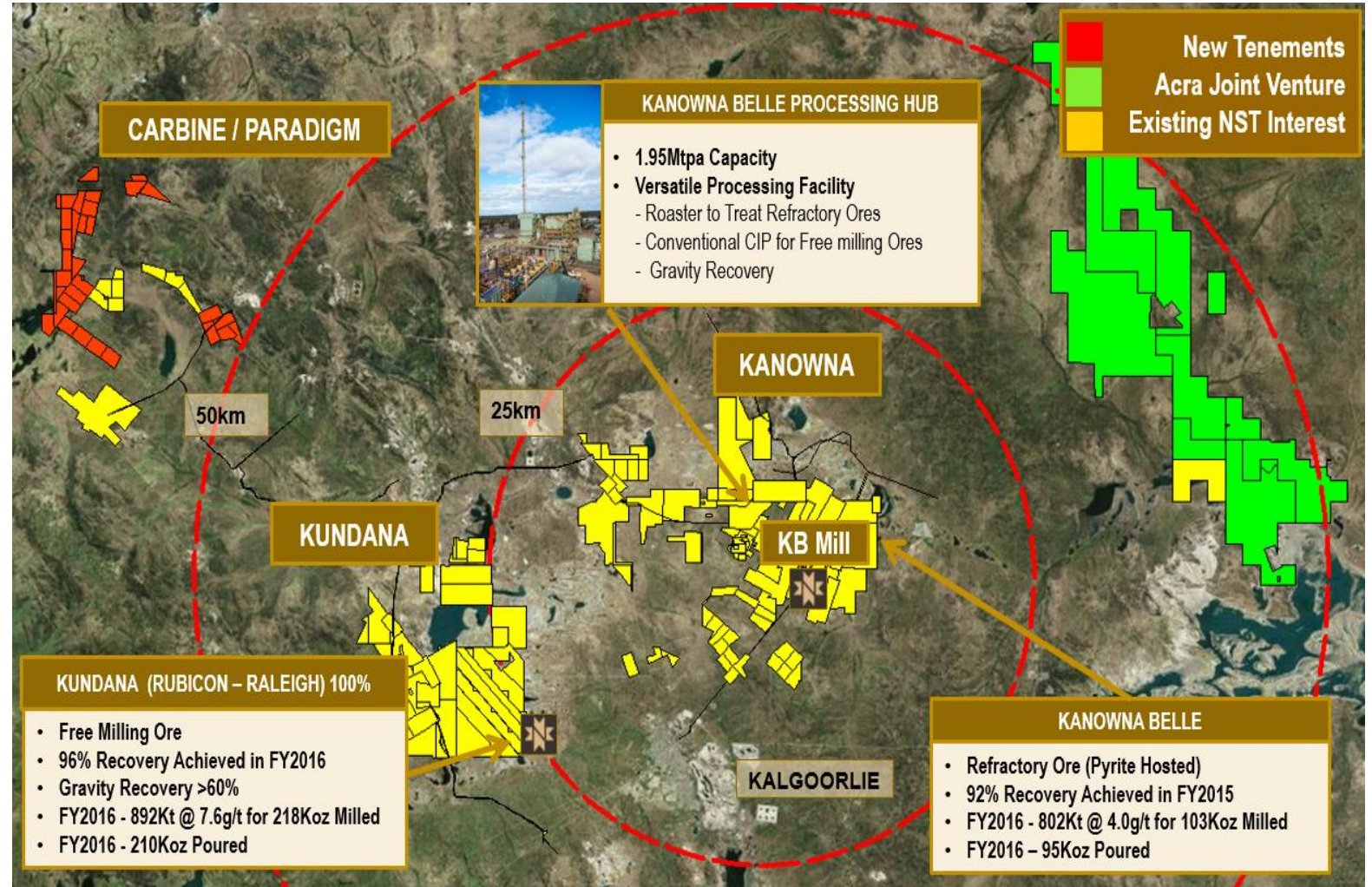
Just the Beginning Greenfield Exploration Renewed



- ✦ Numerous targets generated from new geological mapping generated in FY16
- ✦ Aircore geochemical drilling program for FY2017 – 2,416 holes drilled for 119,764m
- ✦ Targeting new mineralised systems similar to Jundee, Gourdis-Vause and Bogada Bore
- ✦ Further 70,000m aircore drilling scheduled for completion during first half FY18
- ✦ Follow-up and infill drilling targeting anomalous results will commence in FY18

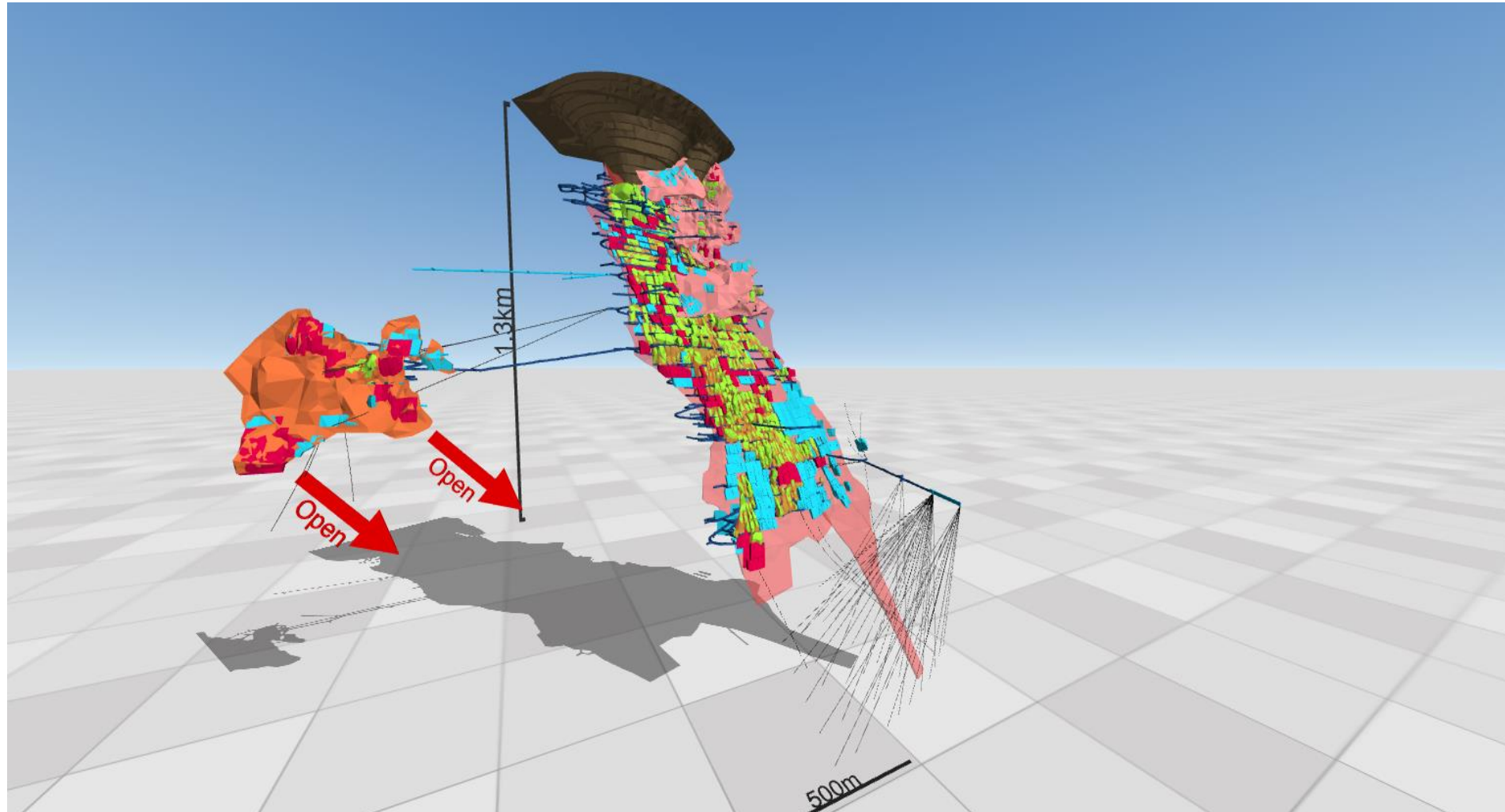
Kalgoorlie Exploration provides rapid low-cost growth

- ✦ Kalgoorlie Reserves are up 117% to 2.0Moz (despite depletion of 229koz)
- ✦ Kalgoorlie Resources are up 25% to 4.5Moz (despite depletion of 229koz)
- ✦ NST 100% owned Kundana deposits are where Northern Star will achieve a large proportion of its overall Group production growth from FY18 onwards



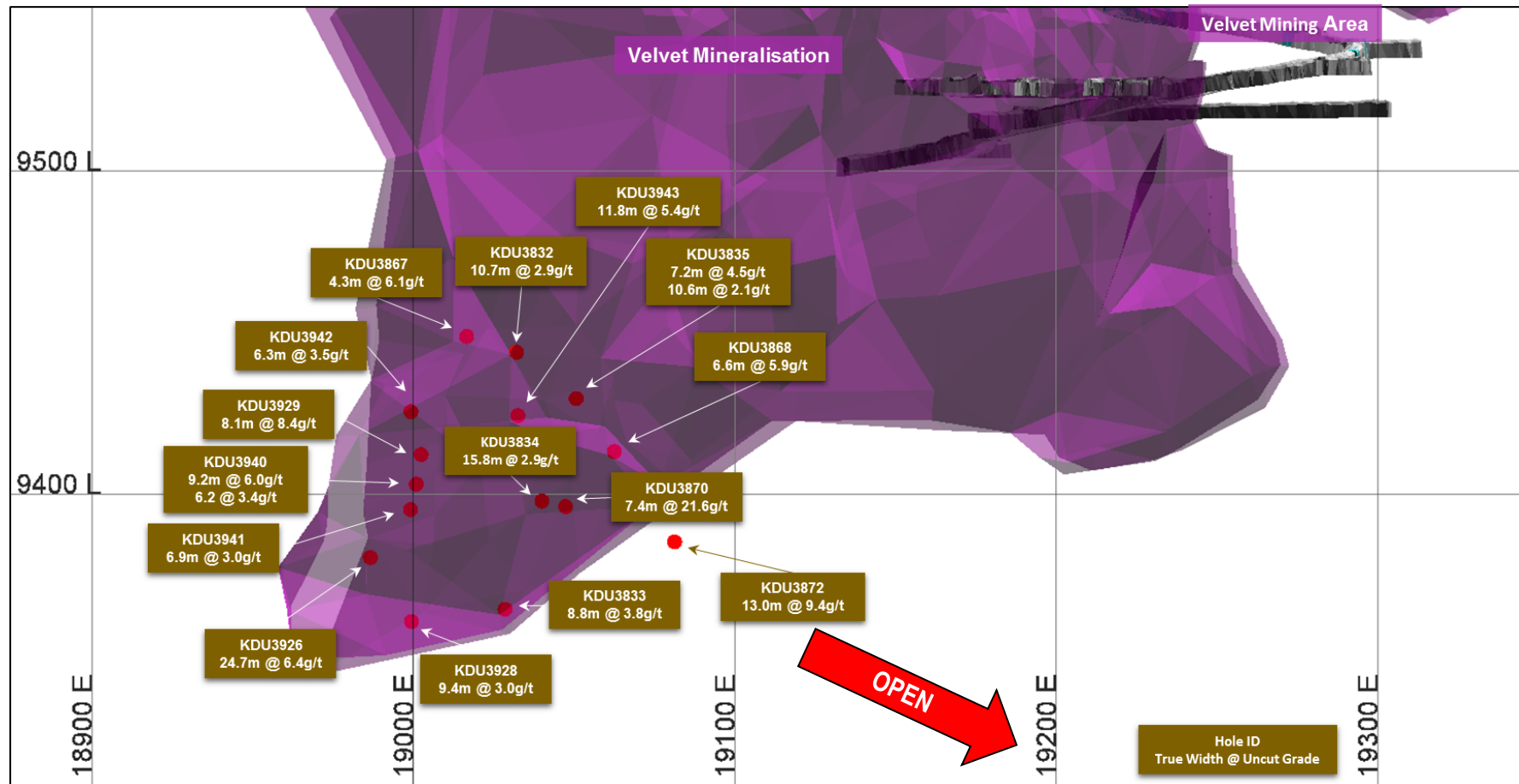
Kanowna Belle – Rebuilding a Long Term Future

- ✦ KB Reserve grown 120% to 0.5Moz
- ✦ Exploration success and large cost reductions drive larger Resource to Reserve conversion
- ✦ Delivered largest reserve base in the past 7 years and secured KB's long-term future
- ✦ Northern Star will invest in drilling at depth of the +5Moz system
- ✦ Already encouraging signs that the 4,000oz per vertical metre orebody continues

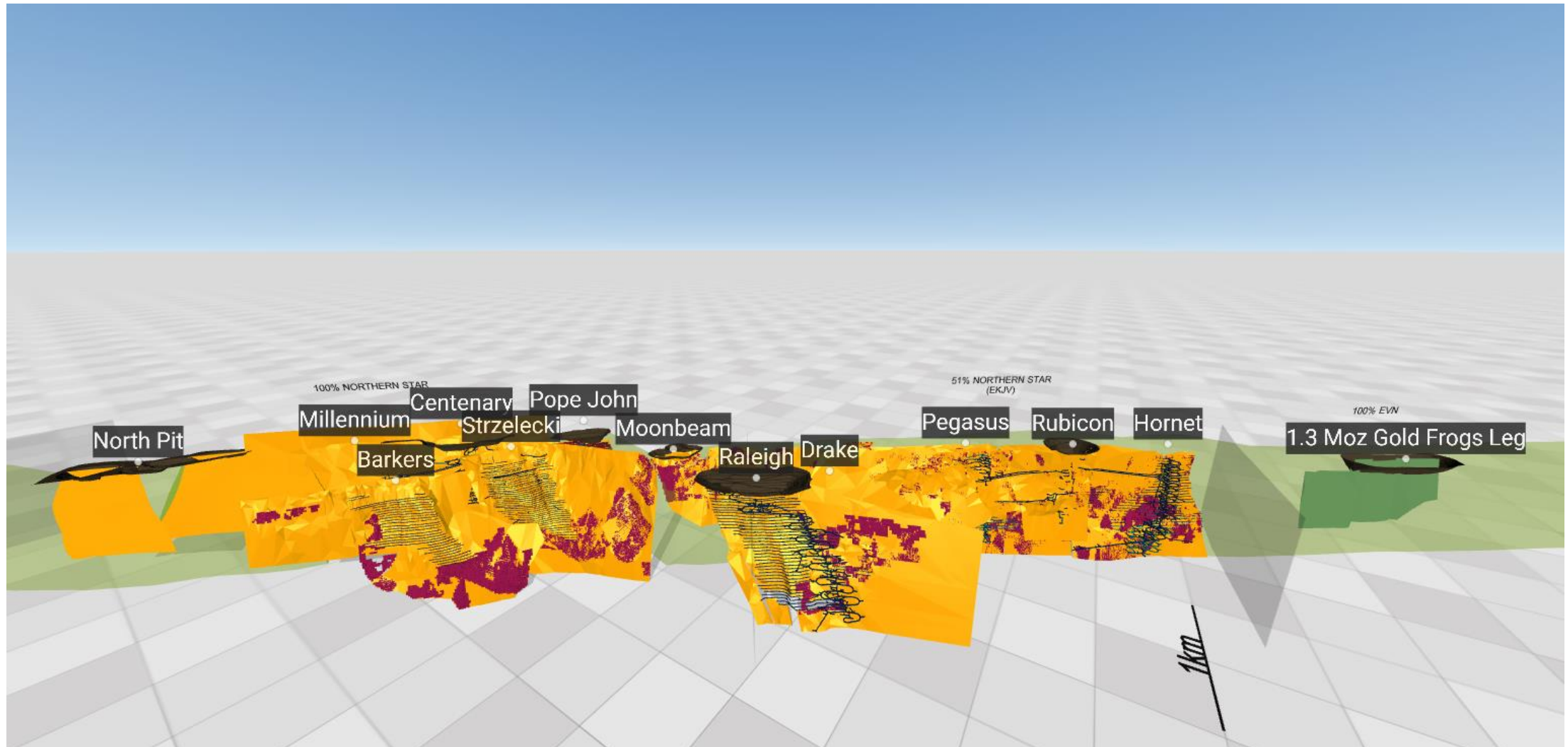


Just the Beginning – Growth of Velvet

- ✦ Velvet contributes only 21% (105,000oz) to the new Reserve estimate and 10% (143,000oz) to the new Resource estimate.
- ✦ Recent exploratory drilling at Lower Velvet intersected significant new mineralisation trend down dip along the Fitzroy Fault
- ✦ Significant production contribution in the re-invention of Kanowna Belle

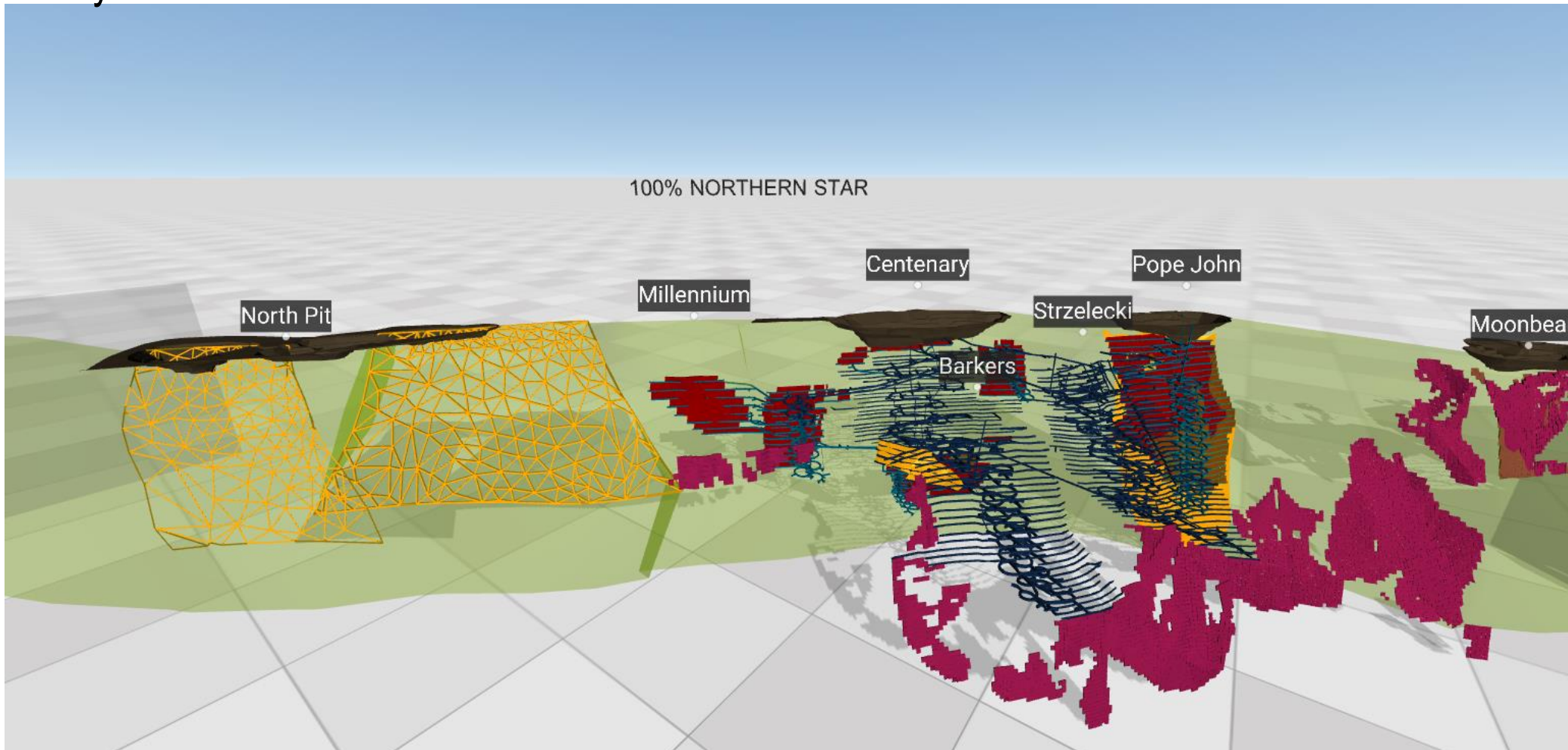


- ✦ For the first time the underground Resource estimate on Northern Star's 100% Kundana tenements of 1.5Moz has exceeded the 1.24Moz underground Resource on the 51% owned EKJV at Kundana



Kundana 100% - The Future Growth Centre

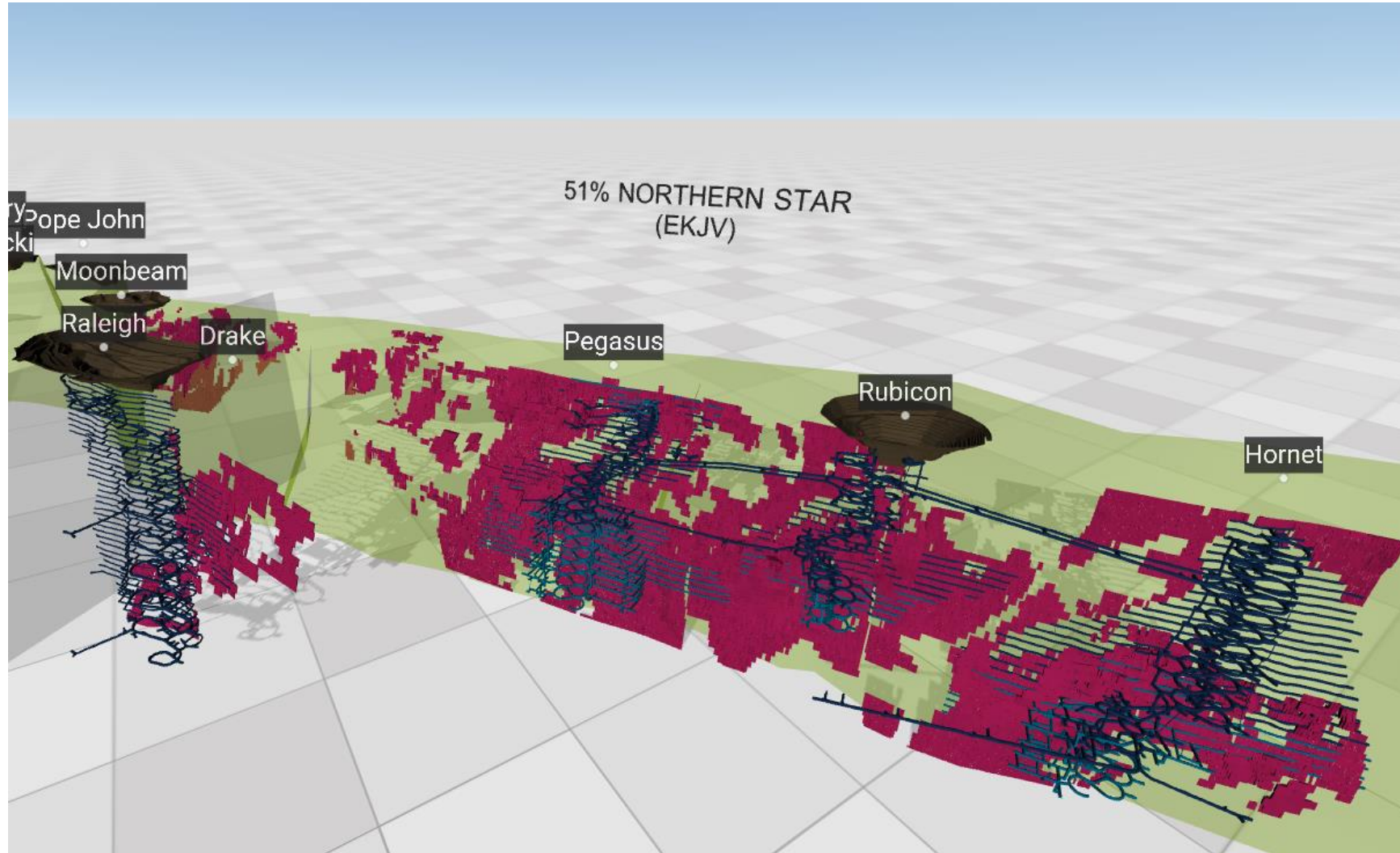
- ✦ Underground Reserve estimate of 0.8Moz exceeds the 0.6Moz underground Reserve for 51% owned EKJV
- ✦ Exploration success has enabled the new operation to go from discovery to maiden Reserve to production in under three years



EKJV – Exploration success drives production growth



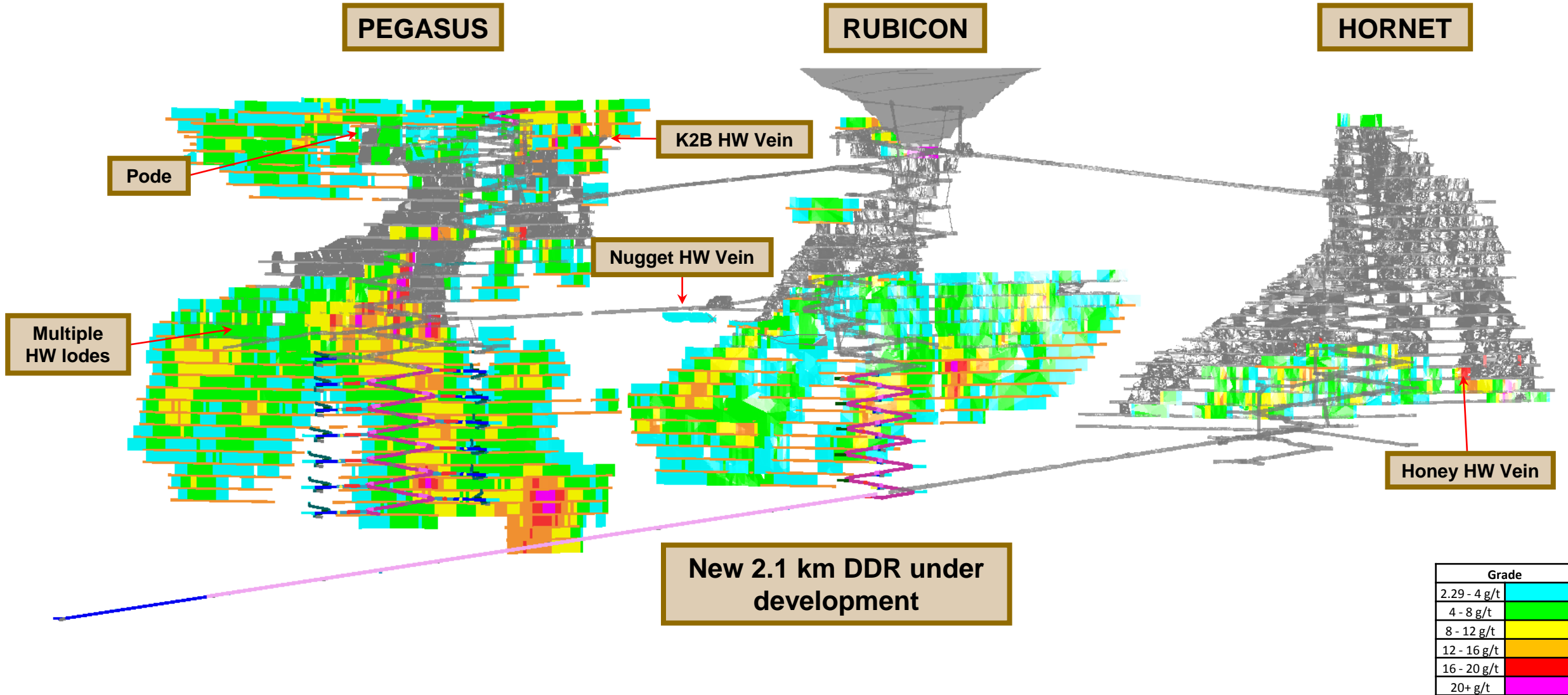
- ✦ Since the acquisition of the EKJV 51% owned Kundana tenements three years ago, Northern Star has focused on growing the Resources, Reserves and production profile
- ✦ FY17 delivered the largest Reserve base and highest annual production rate since the operation commenced in 1988

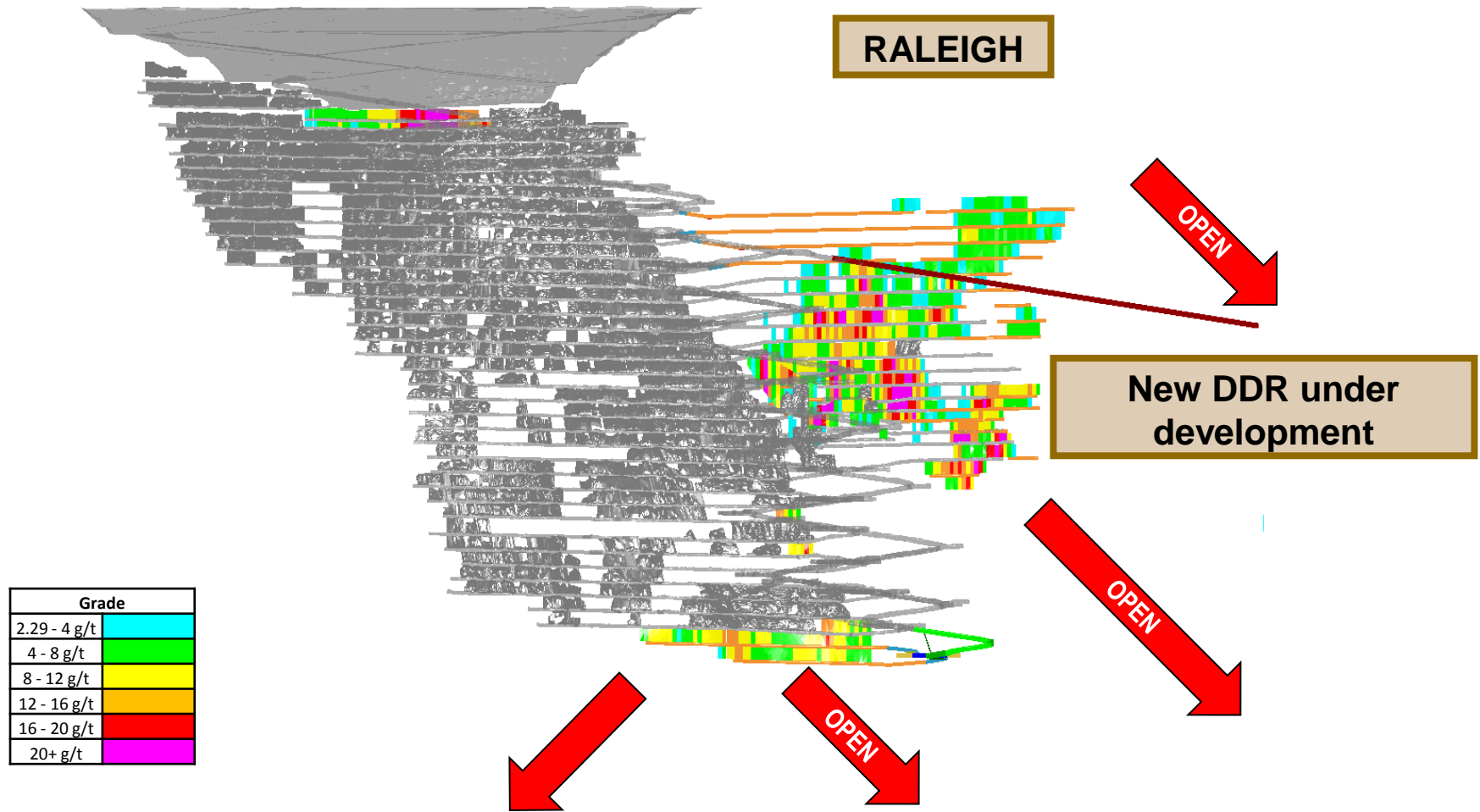


RHP – New Drill Drive to continue Resource growth



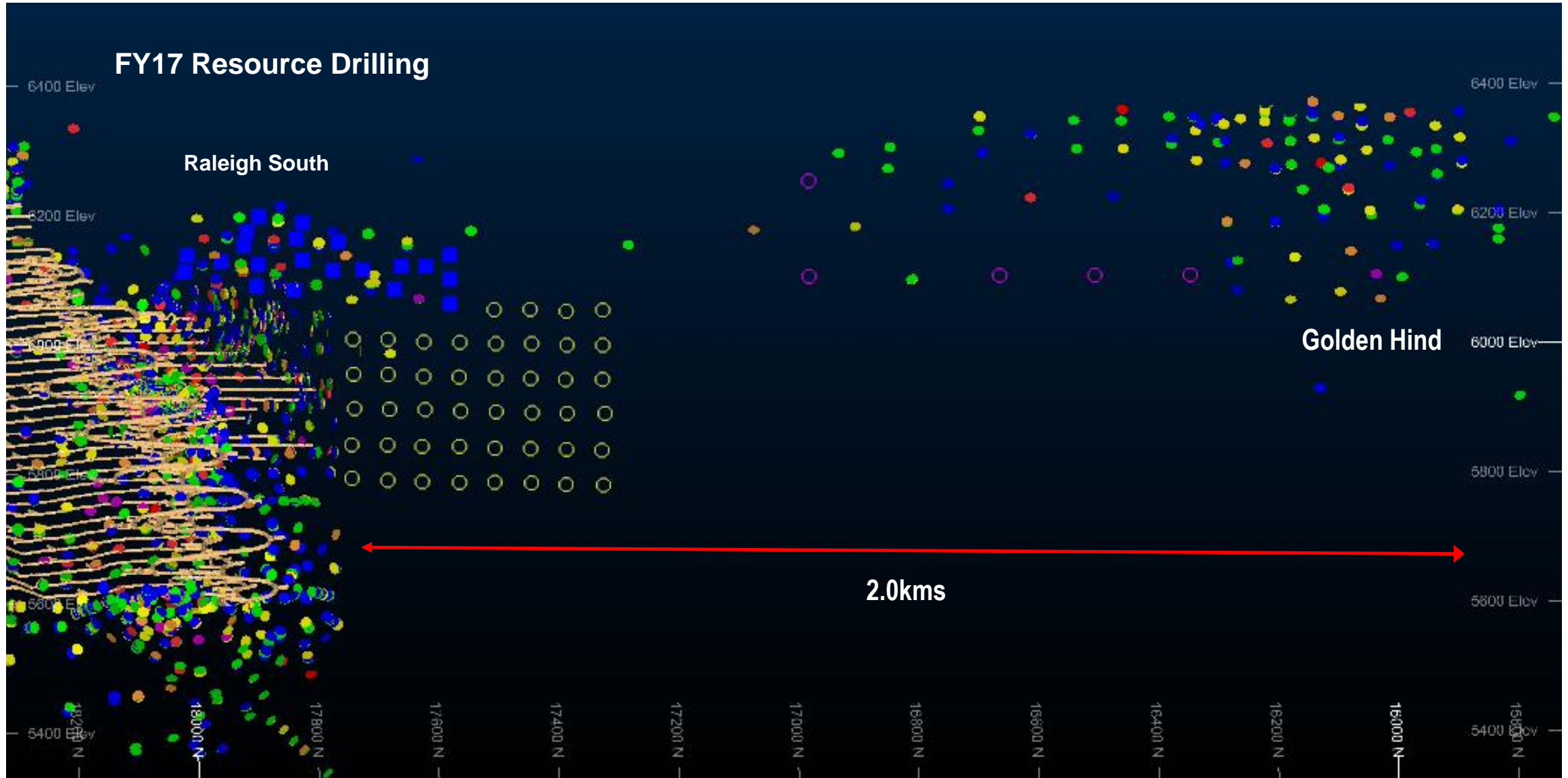
✦ The 2.1km drill/link drive at the base of the mine will form the next leg in exploration





- ✦ Exploratory development and drilling continued to grow new Raleigh resource base
- ✦ Historically, Raleigh was the largest and highest margin producer at Kundana
- ✦ FY17 exploration success driving the future renewal of Raleigh's production
- ✦ Large area of prospective structure

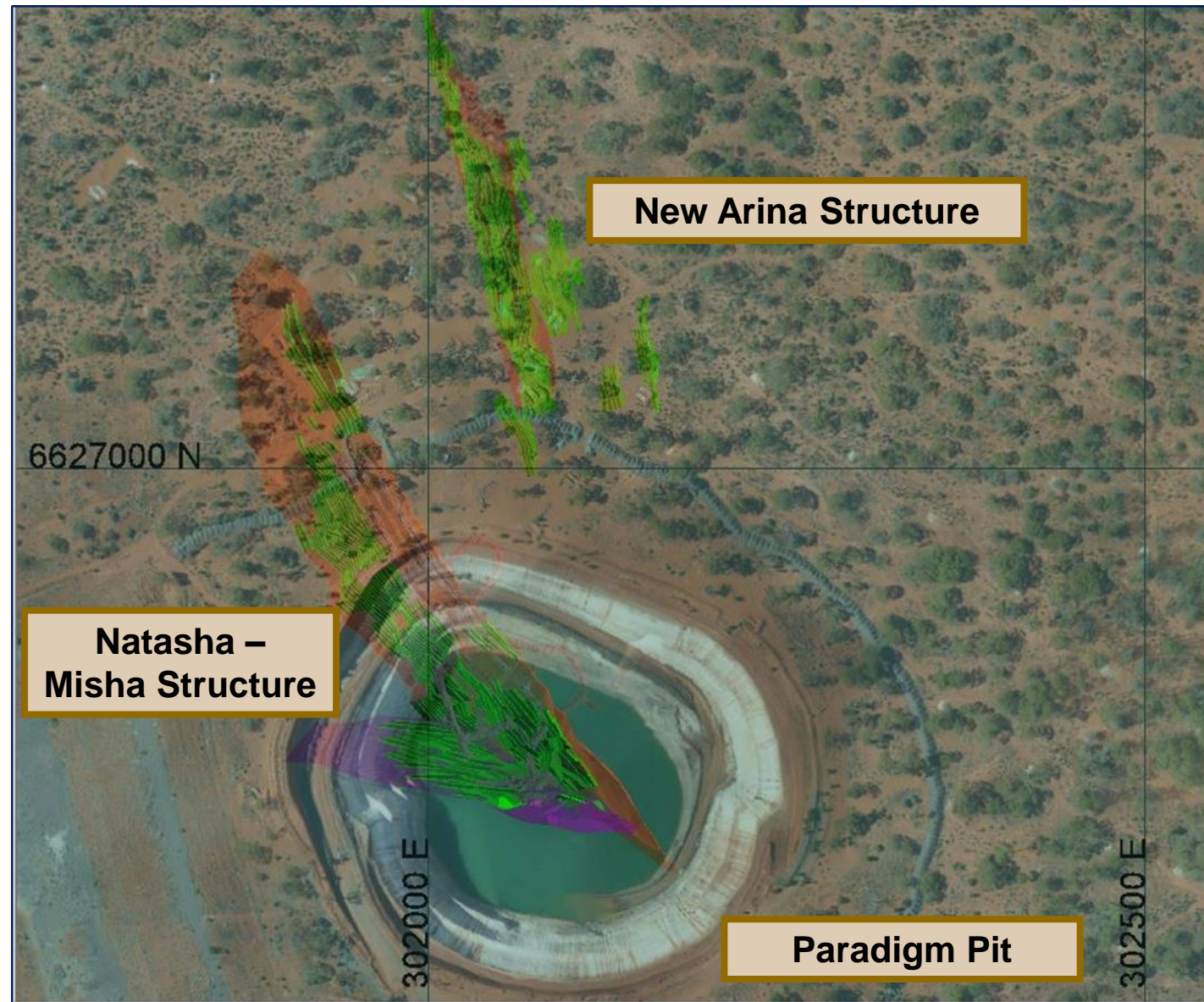
EKJV– Raleigh Corridor Future Exploration



Paradigm – Maiden Resource is just the beginning.....

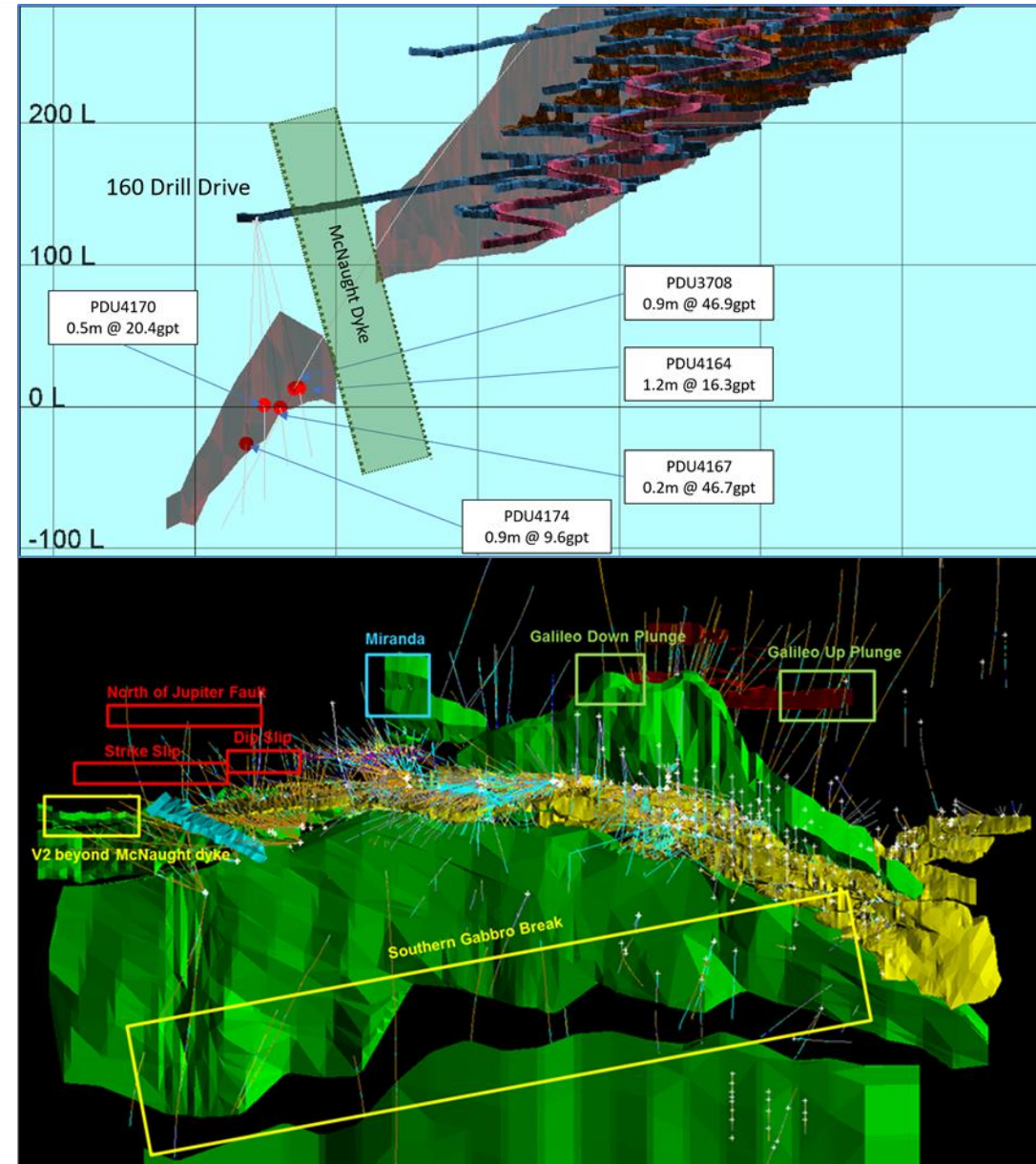


- ✦ New Paradigm discovery located at Carbine, approximately 40km north of Kundana
- ✦ Original Natasha resource discovered by Goldfields and mined via shallow open pit and underground in 1990s
- ✦ Paradigm North (Arina structure) discovered by NST Exploration in FY16
- ✦ Maiden underground Resource at Paradigm of 187,000oz at 6.7gpt
- ✦ Potential to grow as additional new drilling results incorporated with further interpretation
- ✦ Open pit dewatering in progress and underground portal now exposed in Paradigm open pit
- ✦ Numerous surrounding exploration targets advancing



Paulsens Exploration Investment

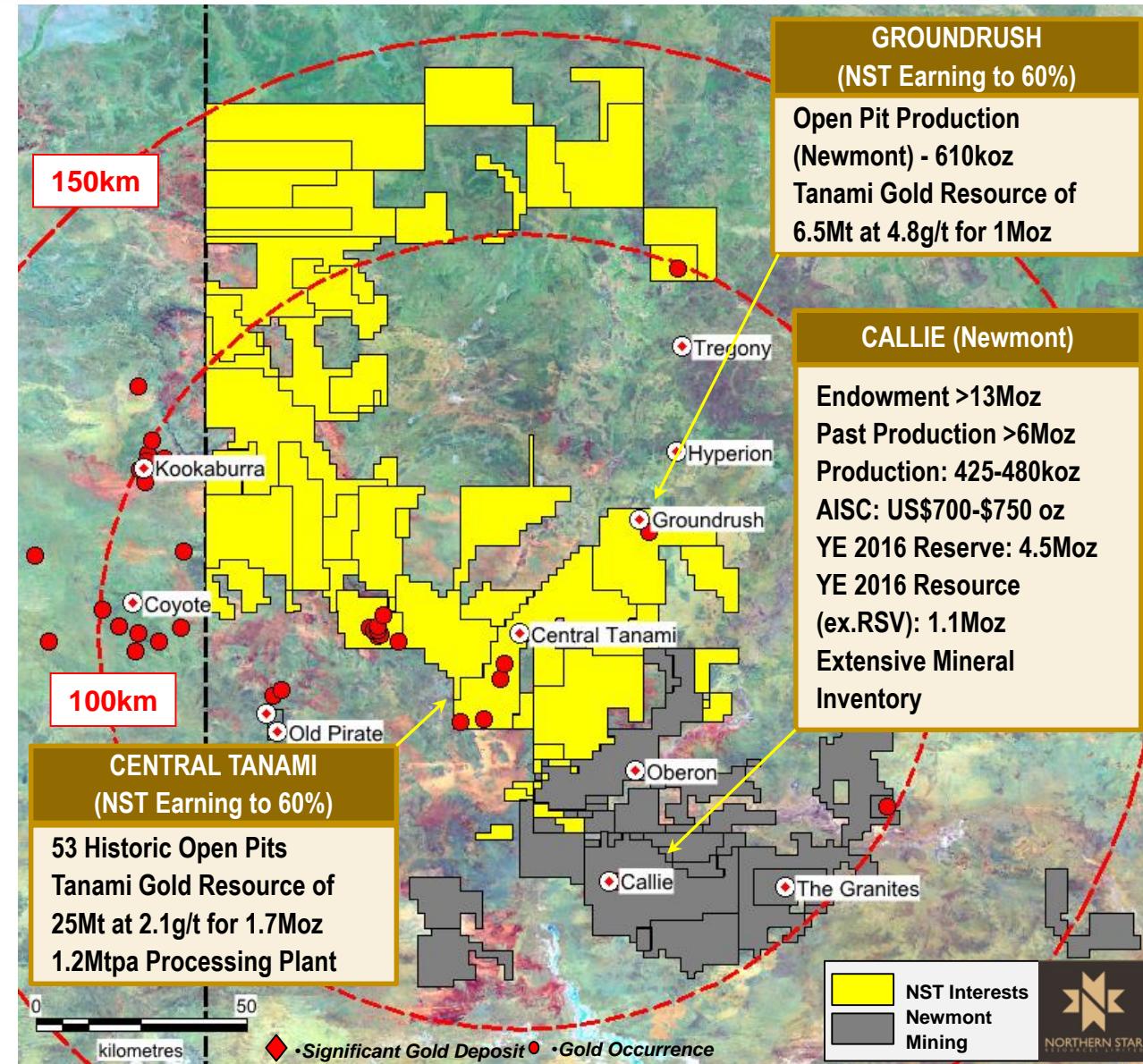
- ✦ Northern Star has committed to invest approximately A\$10 million in exploration at Paulsens over the next two years to revitalise the operation
- ✦ The Company has a two-pronged strategy to return Paulsens to its historical production average of 75,000oz per year
- ✦ First, continue drilling down-plunge of the Voyager 2 orebody beyond the current dyke from the recently established 160mRL drill drive. This has shown some early promising results and indicates that the ore system is still well mineralised beyond the dyke
- ✦ Second, surface and underground drilling will commence on the Southern Gabbro break target, located 600m south of the Paulsens mining area
- ✦ Early drilling has intersected a new, parallel, quartz-filled structure in the Mine gabbro sequence
- ✦ Exhibits many features of the main lode at Paulsens where ~1Mozs has been mined to date



Central Tanami Project “CTP”: Emerging Growth Region

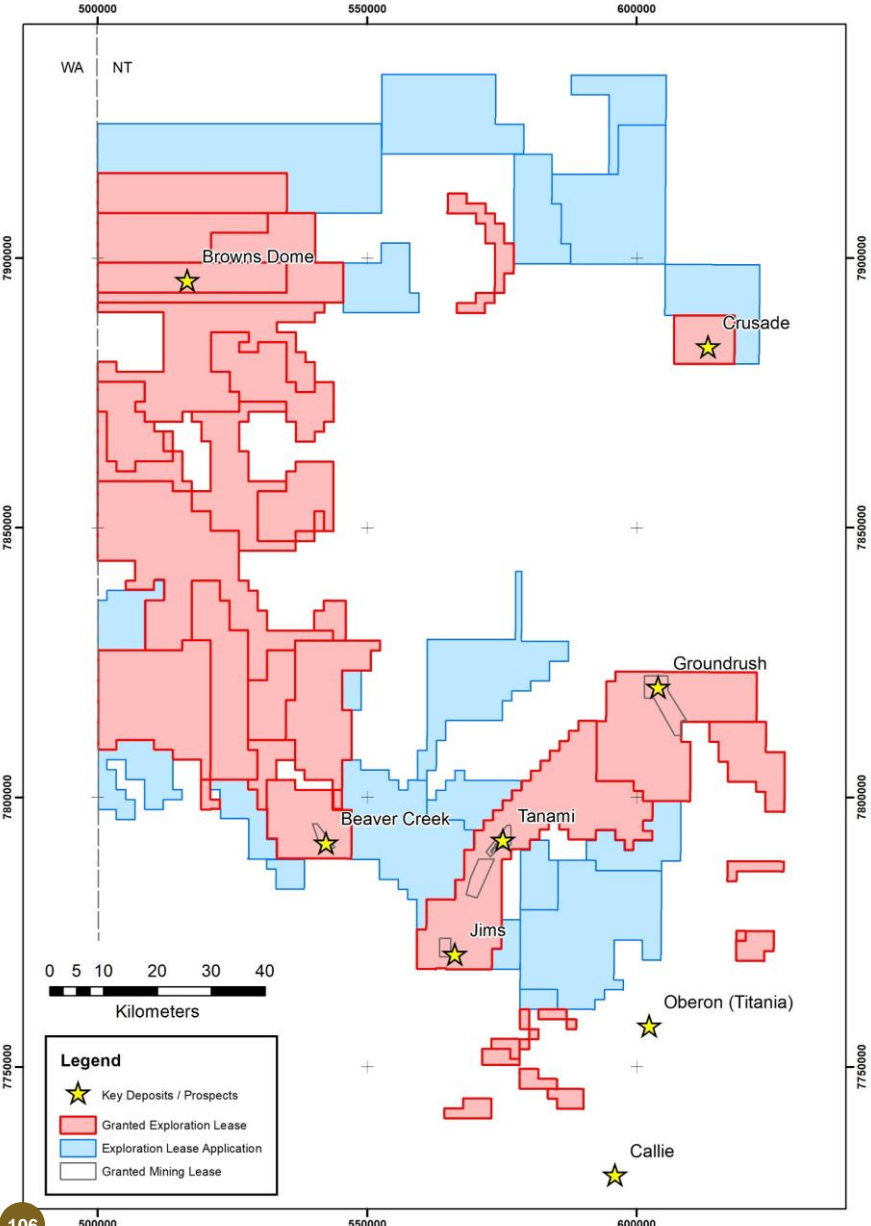


- ✦ The Tanami region is an exploration frontier that is rapidly developing a reputation for major gold discoveries
- ✦ NST land position are contiguous to the world class Newmont Callie mine
- ✦ Central Tanami Project was divested by Newmont in 2010 before they “unlocked” the geology at Callie Mine
- ✦ Past production of 2.1Moz, averaged 120kozpa; only mined mineralisation via pits to a depth of <125m
- ✦ Production ceased after mining of the Groundrush pit, where 610koz at 4.3gpt were recovered over a 4 yr period
- ✦ Past 5 years has seen A\$40M invested at CTP in drilling and feasibility studies with a current Resource of 1.1Moz
- ✦ Recently acquired a substantial strategic land position to complement existing operations
- ✦ Has the potential to be a 120-150kozpa producer (100%)



Source: * Newmont May 2017 investor presentation - Mid-point of company guidance

Tanami Regional Exploration – FY18 Strategy



- ✦ Accelerate evaluation of existing Resources, identify opportunities for growth, and determine conversion requirements
- ✦ Application of a combined empirical-conceptual targeting strategy across all areas
- ✦ Initial FY18 exploration budget of \$6.5 million committed
- ✦ Examination of historical geological datasets highlighted the under-explored nature of the region
- ✦ Geochemical sampling using low impact drilling methods commenced
- ✦ Multi year exploration objective:
 - ✦ Develop new oxide Resources on mining leases
 - ✦ Discovery of new 1Moz deposits within 100km of CTP
 - ✦ Greenfield assessment of 10,000km² footprint within prospective terrains that are largely unexplored



NORTHERN STAR
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ASX Code: NST



An Australian gold miner – for global investors
Northern Star Mining Services – Asset Optimisation

What is Northern Star Mining Services “NSMS”



- ✦ Underground Mining Services Division is effectively an “In-house” mining contractor model
- ✦ Setup to cater for Northern Star’s internal and external growth ambitions with fully aligned goals
- ✦ Provides Northern Star with another option than being held ransom to contractors
- ✦ Skill set is a strategic advantage over our peer companies
- ✦ NSMS provides the services of
 - ✦ *Underground Supervision and Project Management*
 - ✦ *Underground mine excavation and ore production activities*
 - ✦ *Underground haulage*
 - ✦ *Maintenance of Underground Fixed and Mobile Fleet*
 - ✦ *Management of Underground/Maintenance procurement & warehouse*



Underground Capability Statement



- People:**
- ✧ *We have one of the largest specialist underground workforces in Kalgoorlie and in the state of Western Australia*
 - ✧ *We have a total workforce of ~600 people of which 500 are in Kalgoorlie*
 - ✧ *We have the ability to transfer underground staff between our operations as required or redeploy*
- Relationships:**
- ✧ *We have access to a wealth of local resources including suppliers for underground and very strong relationships with local contractors (ByrneCut operates at our Jundee mine)*
 - ✧ *We know many of the underground mining personnel across Western Australia, which is a major asset for future growth*
 - ✧ *We have access to and key involvement with the world class mining university, Western Australian School of Mines*
- Fleet:**
- ✧ *Current heavy mobile equipment includes 11 development drills, 9 production drills, 15 loaders and 21 underground haulage trucks (and growing)*
 - ✧ *We have the ability to transfer equipment from other sites to balance peak periods of work or take away and redeploy as required*
- Mining at Depth:**
- ✧ *We have an in-depth knowledge, mature systems and comprehensive understanding of local geotechnical issues for deep underground mining especially in the Kalgoorlie region*
 - ✧ *We have exceptional knowledge of ground support requirements, mining sequencing, stress management and seismicity management. At Kanowna we are currently mining at 1,300mbs and going to 1,800mbs in coming years*

NSMS has been instrumental to Northern Star's achievements



- ✦ NST in the past 7 years has grown from a A\$1M shell company with no production or employees to a **A\$2.8B** market capitalisation producing **525-575kozpa** with ~1,600 total employees and contractors
- ✦ We have successfully **integrated 5 acquired operations** with no employee, contractor, supplier, traditional owner or local community concerns and no reduction in safety performance or disruptions to gold production after settlement of the acquisitions
 - ✦ *Within the first quarter of ownership at all 5 operations we considerably improved productivities and mining physicals even after an average reduction of 15-25% in total workforce numbers*
- ✦ Within two quarters of ownership we have significantly reduced each operation's total cost base in the order of 20-50%
- ✦ Within 12 months of ownership we have substantially grown mine lives across all 5 operations
- ✦ Now 3 years on, with substantial visibility across the asset base, we are embarking on a strategy to **grow our group production profile and our Underground Expertise Capability**

Why does the NSMS model work inside Northern Star Resources



- The vast majority of the Executive team have an operational/technical background coupled with many years of senior management especially in the mining services industry
- Our Executive Chairman, CEO and Senior Management all visit each mine regularly
- The Contractor operating model enables the site Project Manager full autonomy to manage all the mining personnel and equipment underground, this role is generally non-existent in owner miners
- We use a mixture of owner miner and contractor mining depending on the individual site characteristics, no one size fits all
- Although separate accountabilities, the relationship between NST (client) and NSMS (contractor) is leveraged to get best for business outcomes
- Pay structure for the miners is a piecework system which is self funding and promotes teamwork and self managing
- We don't have a head office, we have a Perth office which sole purpose is to be a resource for our operations and this is widely known and accepted internally

Board - Successful record in operating, developing and discovering mines

Bill Beament	Executive Chairman (<u>Mining Engineer</u>)
Chris Rowe	Non-Executive Director - Independent (Barrister and Solicitor)
John Fitzgerald	Non-Executive Director - Lead Independent (Resources Finance and Banking)
Peter O'Connor	Non-Executive Director - Independent (Investment Fund Manager)
David Flanagan	Non-Executive Director - Independent (<u>Geologist</u> , Resources Professional)
Shirley In't Veld	Non-Executive Director - Independent (Experienced Resources Director)

DISCIPLINES TO OPERATE A MINING BUSINESS ARE COVERED

Senior Management

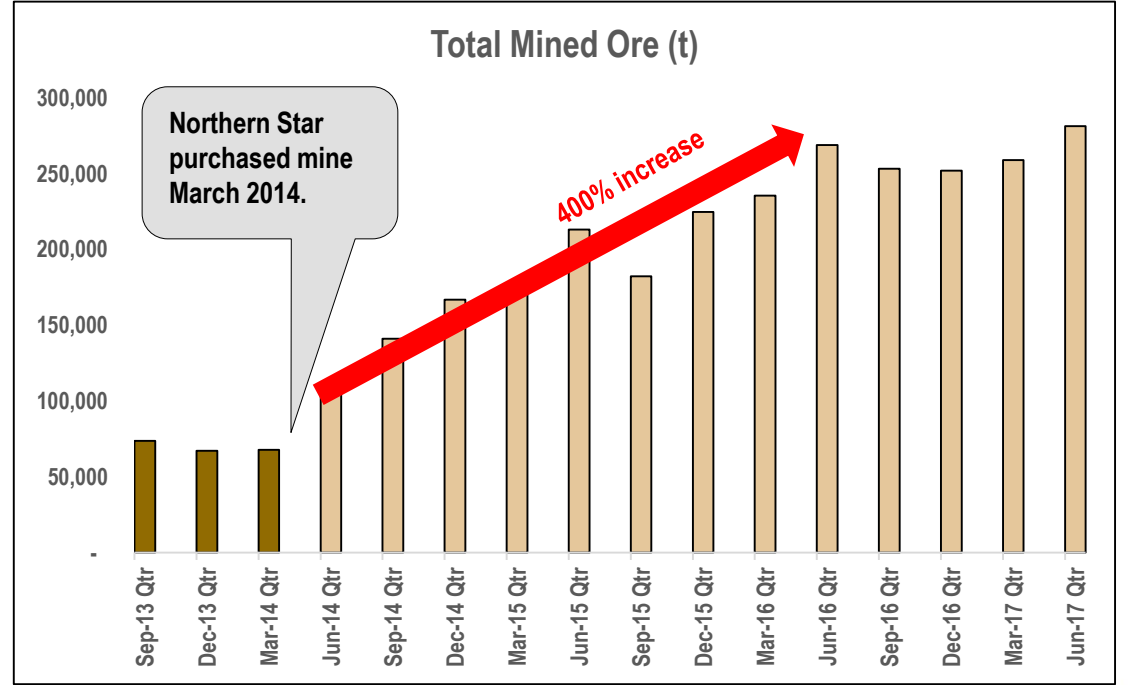
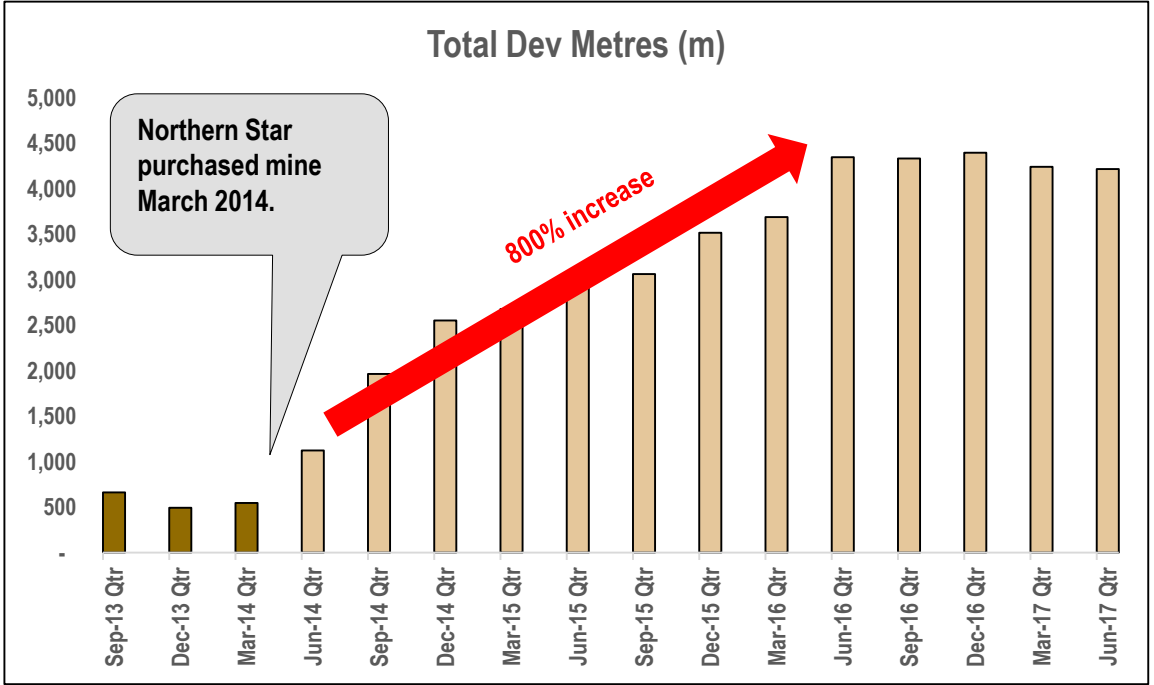
Stuart Tonkin	Chief Executive Operator (<u>Mining Engineer</u>)
Darren Stralow	General Manager Operations (<u>Mining Engineer</u>)
Shaun Day	Chief Financial Officer (Accountant)
Liza Carpene	Company Secretary (Chartered Secretary)
Michael Mulrone	Chief Geological Officer (<u>Geologist</u>)
Luke Creagh	General Manager Strategy & Growth (<u>Mining Engineer</u>)
Hilary Macdonald	General Counsel (Lawyer)

MANAGEMENT CAPACITY TO CATER FOR COMPANY GROWTH

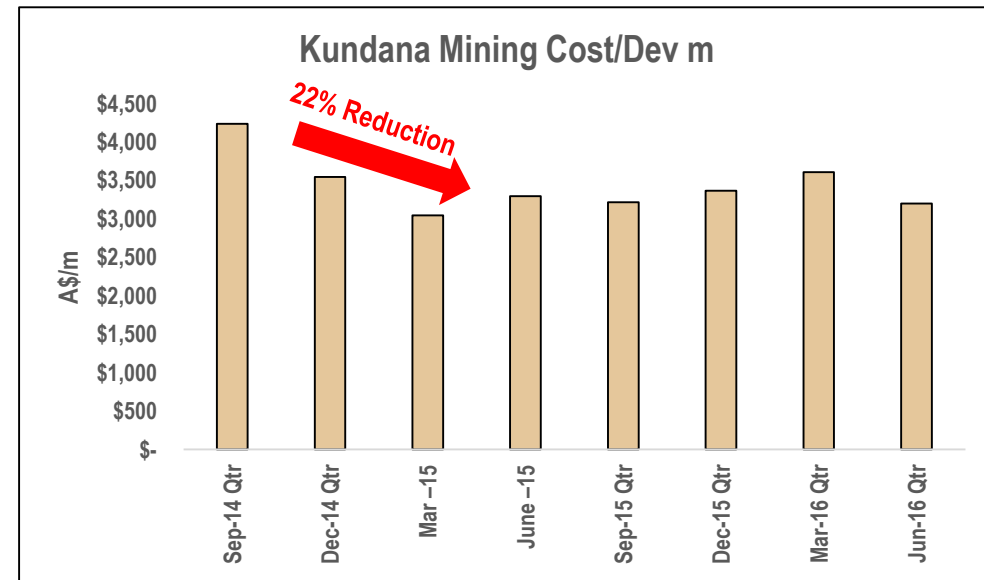
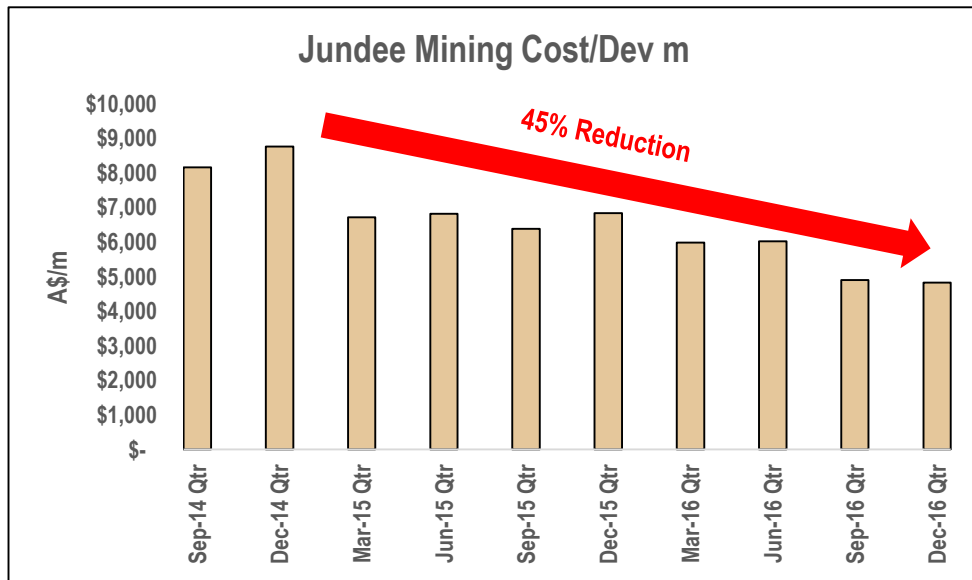
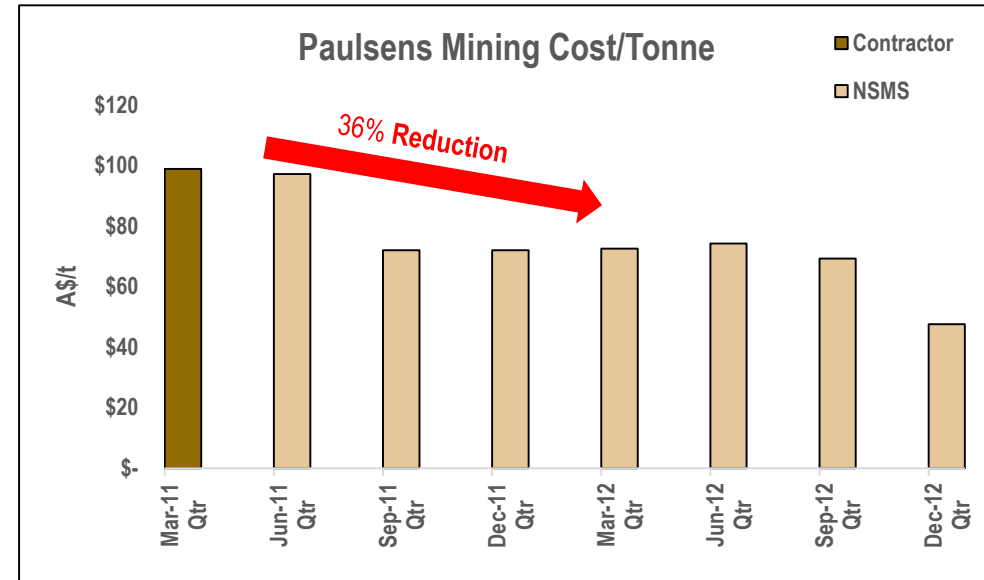
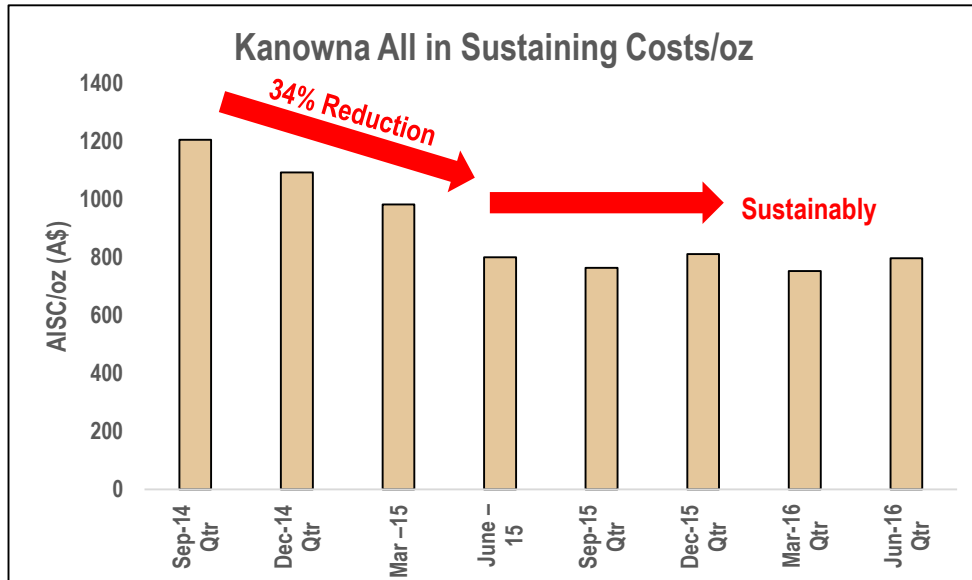
NST Operating Model: Optimise Operations (Productivities)

Case study at Kundana EKJV Operation:

- ✦ Changed the management structure to a contractor management and remuneration model from day one of ownership
- ✦ Aggressively invested capital into the mining fleet and technologies – new Jumbo development drills, larger loaders with semi-autonomous guidance systems and optimised the trucking fleets; we change out all major fleet at the end of first life
- ✦ Reduced total workforce numbers by 20%
- ✦ Within two years, we have increased jumbo development physicals by 800% and total ore tonnes mined by 400%, this has resulted in a significant reduction in the mining cost per tonne and substantially boosted gold production



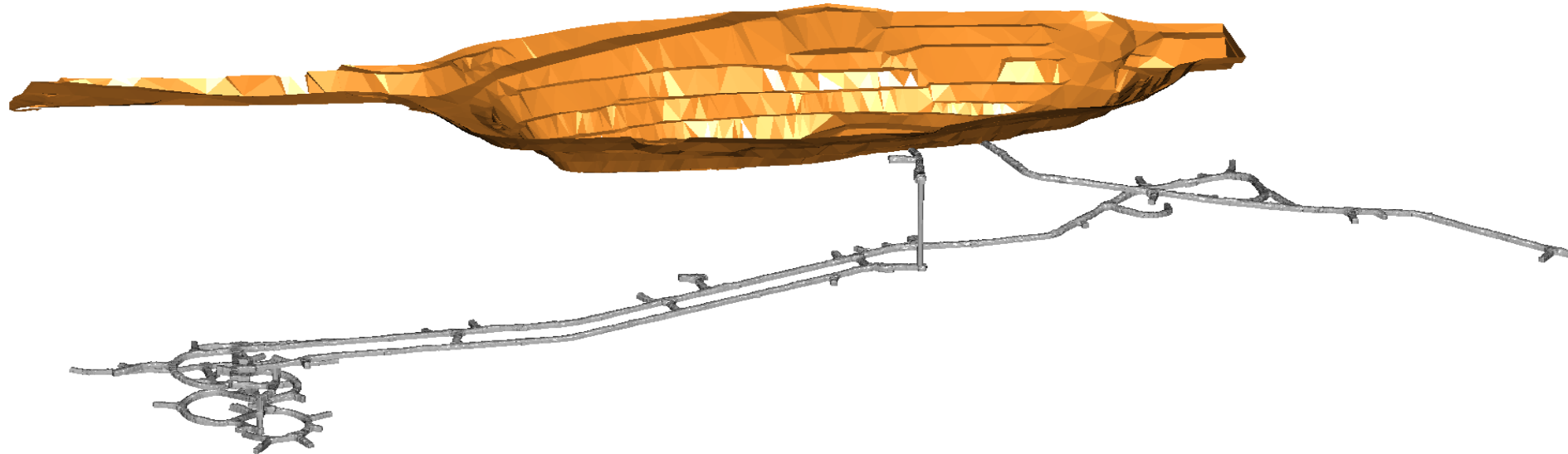
NST Operating Model: Improve Financial Metrics (unit costs)





Case study at Kundana EKJV Operation:

- ✦ *NSMS **independently tendered** against underground mining service providers and won the tender*
- ✦ *Development commenced in **August 2016***
- ✦ ***3,873m** development completed to the end of June*
- ✦ ***Averaging 313m/month** (one Jumbo) in single heading development, **50% faster than tendered physicals***
- ✦ ***Averaging 453m/month** (one Jumbo) for multi heading development.*
- ✦ ***\$5M (25%) cost saving** compared with tendered pricing*



How responsive can we be – Track Record

- ✦ NSMS has the **expertise and capability** of a leading underground contractor
- ✦ Systems and organisational **structure set up for high productivities** and enable responsive decision making
- ✦ Transitioned four underground mines to NSMS at settlement date of acquisitions
- ✦ Baraminco to NSMS Transition was a 30 day turn around from announcement
 - ✦ *Doubled the size of NSMS – 242 to 476*
 - ✦ *~290 employees (including contractors) at EKJV*
 - ✦ *3x new TH663 trucks and 3x Long Hole Drills on site in the first week*
- ✦ Input into **mine design and scheduling** to achieve best results



- ✦ Increase our **Underground Capability**
- ✦ Measure **performance against peers** and continue to **drive against current limits / bottlenecks**
- ✦ Work with suppliers to **utilise emerging technologies**
- ✦ **Critically assess** current mine designs and specifications **from first principals** to determine if there are **better solutions**
- ✦ **Continue to offer superior customer service with aligned values**





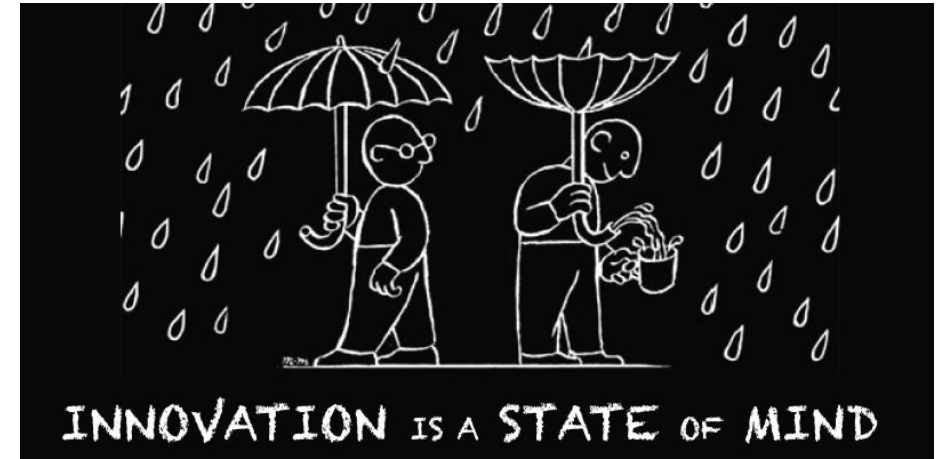
NORTHERN STAR
RESOURCES LIMITED
ASX Code: NST



An Australian gold miner – for global investors
Innovation and Technology

✦ NST's approach to Innovation

- ✦ *A new idea, device, or method*
- ✦ *Something newly introduced (leading to a better solution)*
- ✦ *It does not need to be technology*
- ✦ *It can be on a mine by mine basis*



✦ NST's approach to Technology

- ✦ *Is the collection of techniques, skills, methods and processes used in the production of goods or services or in the accomplishment of objectives*
- ✦ *What is **available now** and **will be available** soon (digitalisation)*

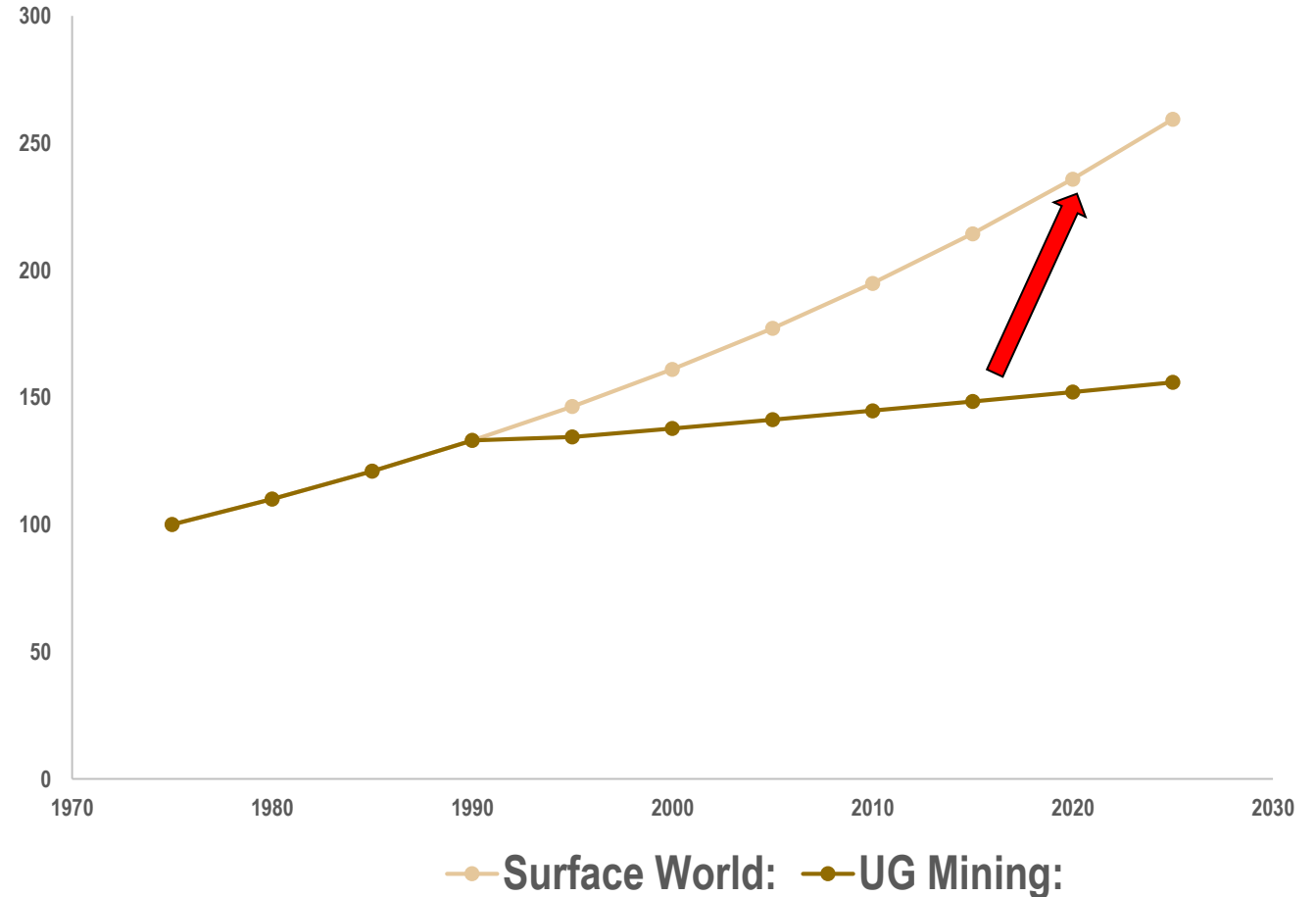
✦ For NST to implement it must improve measurable business metrics

NST embraces the opportunity that exists for innovation



- ✦ NST consider that there has been no fundamental change to mining methodology since we stopped scaling from the muck pile and used Jumbos for scaling and ground support
- ✦ Open Pit mining has embraced technologies more readily than underground but the same opportunities exist for underground operators

Innovation and Technology



Technology: What we are doing now



- ✦ 3D Seismic surveying – drill targeting
- ✦ Bogging: Guidance tele-remoting (including from surface)
 - ✦ *Allows 20% larger bogger to be used*
 - ✦ *Allows second gear to be used in remoting cycle (80% faster)*
 - ✦ *Increased available work time per shift up to 2hrs or 17%*
- ✦ Central firing systems
 - ✦ *Reduce firing time to 30 minutes at end of shift – allows longer shift times and quicker re-entries*
- ✦ Longhole automation, Jumbo automation
 - ✦ *All new drills purchased with auto-drill – allows for drilling over crib and shift change gaining up to 3hrs per shift or additional 25% more work*
 - ✦ *Allows for drilling between shifts, better control on accuracy, longer rounds*
- ✦ Telemetry on fans
 - ✦ *Each twin 110kW secondary fan costs A\$40k to run per annum. Remote / automated fan control significantly reduces running time and therefore power cost up to 65%.*



- ✦ Top three this year
 - ✦ *Undertaking ore screening and sorting / separation trials*
 - ✦ *Implemented smaller faster trucks for Millennium*
 - ✦ *NST trialed a world first with 4G LTE network underground at Millennium in June - driving towards automation of underground mines*

- ✦ Working with multiple third parties on geology, mining, processing and power
 - ✦ *Hydrogen Peroxide explosives*
 - ✦ *Gamma Activation Analysis (GAA) for gold assays*

- ✦ Several other projects ongoing

- ✦ **An enabling technology**

- ✦ **Still in the cycle**

- ✦ *We have been around once with the trial*
- ✦ *Going around a second time with a more advanced and specific set of needs*
 - ✦ *Shorter term goals that bring potential implementation forward*
 - ✦ *Focused more bogging than trucking*
- ✦ **Conversion to digital means continuous monitoring with logic programming – optimising performance**

- ✦ **Mid term goals:**

- ✦ *Autonomous trucking. Autonomous bogging, including from development, step change in available productive hours, auto drill with self equipment positioning equipment, lidar of every excavation every cut, remote scaling and spraying, people / equipment / productivity / ore and waste tracking, monitoring of key locations and activities underground, telemetry on fans / pumps and other infrastructure, blasting control, live maintenance support, augmented reality, mining at depth, reset of production layouts, lots we have not thought of yet*



Mining Magazine – Balancing the load, March 2017 (picture from MINExpo 2016)

What is NST ready for?



- ✦ NST has the **commitment to implement and development leading edge technology and innovation to improve business metrics or create value from nothing** including (but not limited to):
 - ✦ *Digitalisation – converting data to information and acting on it*
 - ✦ *Automation*
 - ✦ *Battery / electric technology*
 - ✦ *Modification of existing systems / designs to suit (challenge existing paradigms)*
- ✦ **Productivity vs Capability vs Possibility vs Impossibility**



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Contact Details:

Luke Gleeson – Investor Relations +61 8 6188 2100

Email – info@nsrltd.com

Website – www.nsrltd.com